HOLT INTERNATIONAL™

Uplifting children. Strengthening families.

HOLT INTERNATIONAL'S FEEDING AND POSITIONING MANUAL: GUIDELINES FOR WORKING WITH BABIES AND CHILDREN

ACKNOWLEDGMENTS

Holt's Feeding and Positioning Manual would not have been possible without the contributions of many individuals. We would like to acknowledge the manual writer Tracy Kaplan M.S., CCC-SLP, CLC, IMH Specialist for her exemplary work writing the manual and for the contributing specialists Brandi Watts, M.S., CCC-SLP, Erin Kaui M.A., CCC-SLP, Rachael M Catt OTR/L, and Raeanne Miller OTR/L. Other primary contributors included Emily DeLacey M.S., RDN, LDN, Michael Quiring and Aloura DiGiallonardo. Illustrations by Travis Pendlebury, Editing by Ali Murray, and Graphic Design by Claire Moncla. Thank you to numerous others for their time, contributions and guidance toward the development of this manual.

ISBN 978-0-578-51059-0

For further information please contact Holt International:
1-888-355-HOLT (4658)
info@holtinternational.org
Address:
250 Country Club Road
Eugene, OR 97401
8 a.m. to 4:30 p.m. (PST)

TABLE OF CONTENTS

PART 3: SPECIAL POPULATIONS AND TOPICS: INFORMATION FOR SUPPORTING POSITIVE FEEDING DEVELOPMENT ACROSS COMMON DISABILITIES

PART 4: APPENDIX: STRATEGIES, HANDOUTS, AND INFORMATION FOR CAREGIVERS AND COMMUNITIES

INTRODUCTION

MORE THAN A MEAL

"It is not how much we do, but how much love we put in the doing.
It is not how much we give, but how much love is put in the giving."

– Mother Teresa

ABOUT THIS MANUAL

WHAT IS THIS MANUAL ABOUT?

This manual is intended to support the caregivers of infants and children by providing information regarding safe feeding practices. Additionally, this manual provides:

① general information on infant and child development
② critical milestones for caregivers to monitor
③ helpful strategies that support not only feeding but enrich the overall well-being of each and every child

For the purposes of this manual, the terms "infant" and "baby" will be used interchangeably to describe a child between the ages of 0-12 months old. The term "child" will be used to describe children of all ages, but particularly children 12 months and older.

WHO CAN USE THIS MANUAL?

This manual is intended to be used by all caregivers within a child's life. The term "caregivers" will be used throughout this manual. "Caregivers" can include nurses, doctors, teachers or educators, child care providers, child care directors, parents, family members, therapists, other health professionals, kitchen/cooking staff, janitorial staff and so forth. All of these different individuals can benefit from the information outlined in this manual.

WHAT ARE "BEST FEEDING PRACTICES"?

The term "best practices" refers to the use of knowledge and methods that are considered the most effective and current in a particular field. "Best feeding practices" means the use of current knowledge and methods for best supporting a child's feeding development. This manual has been created to

support caregivers around the world with feeding infants and children with and without special needs. The material provided in this manual consists of the most up-to-date and effective approaches for feeding infants and young children. The ideas and strategies shared have been gathered and compiled by a team of skilled specialists. Relevant research and literature from the field has been collected and tailored to fit the unique needs of those using this manual. By sharing current best practice information, we ensure safer mealtimes and healthier outcomes for children, while also providing enrichment for relationships between children and caregivers that enhances total child development.

WHY SHOULD I FOLLOW BEST FEEDING PRACTICES?

When caregivers use best feeding practices, they help ensure that every infant and child receive quality care during mealtimes. This, in turn, positively impacts overall growth and nutrition, thereby reducing the incidence of conditions such as wasting, stunting, malnutrition, dehydration and even death[1]. Additionally, by providing each child with a safe and supportive mealtime experience, their capacity for becoming a strong and healthy adult increases. Caregivers who provide thoughtful and supportive feedings not only protect infants and children from adverse health conditions, but they also help develop critical, nurturing child-to-caregiver relationships that are essential for every child to thrive[2].

WHAT IS INFANT AND CHILD DEVELOPMENT?

Infant and child development is comprised of seven specific areas. These areas take turns developing rapidly and in spurts, especially during the first five years of a child's life. These areas are commonly referred to as "developmental domains" and the many skills within each domain are called "milestones."

SEVEN DEVELOPMENTAL DOMAINS

Adaptive: *(Self-help skills for life)* 	⇒ Eating and drinking, sleeping, self-feeding, bathing and washing, getting dressed and undressed,toileting, etc.
Communication: *Receptive Language* *(Understanding language)* *Expressive Language* *(Using language to express self)* 	⇒ Responding to sounds and voices, understanding words, following directions, using gestures such as waving or pointing, using sounds and words to express self, etc.

Fine Motor (Little muscle movements) **Gross Motor:** (Big muscle movements) 	⇒ Picking up small objects with fingers, eating with hands or utensils, brushing hair, sitting, crawling, standing, walking, running, jumping, climbing, etc.
Cognitive: (Thinking and Learning) 	⇒ Early play and problem solving, understanding cause and effect, finding hidden objects, sorting and matching items, getting objects that are out of reach, finding solutions for problems, learning how to get help from others, etc.
Social-Emotional: (Relationships and interactions with others and the world) 	⇒ Relationships with others, distinguishing familiar and unfamiliar people, showing a strong need for a caregiver, seeking comfort, engaging in activities that provide joy, taking turns, smiling, showing pride in personal accomplishments, etc.
Vision: (Sight and seeing skills) 	⇒ Following objects and faces, gazing at others for culturally appropriate periods of time, locating small items, picking up small objects, seeing objects and people far away, repeating hand movements, etc.
Hearing: (Hearing and listening skills) 	⇒ Responding to sounds and voices, startling with loud sounds, locating the source of noises, responding to your own name, repeating sounds and words made by others, etc.

Each of these areas of development contributes to the others, influencing a child's total skill development. Over time, certain areas will have bursts of growth while others will remain stagnant. This ebb and flow of skills is completely normal and expected as a child grows. Each of these areas works together to help a child thrive[3].

WHY SHOULD INFANT AND CHILD DEVELOPMENT BE IMPORTANT TO CAREGIVERS?

Strong child development is the foundation of prosperous communities[4]. Therefore, when a caregiver supports the development of a child, he or she is contributing to the health of the entire community. Caregivers are vital to healthy, well-developed children. A well-developed child becomes a healthy, productive and independent adult. The work that caregivers do — the love and care that they provide — is powerful and essential for a child to thrive.

Each of the seven areas of child development include broad time frames indicating at what ages certain milestones typically occur. When a child does not develop a skill or reach a milestone within an expected time frame, more support may be needed to help that child grow. Caregivers should have a basic understanding of development in order to help identify potential problems and solutions early.

The earlier we can address a potential issue in a child's development, the faster and more successful they can be in overcoming it.

WHY DO EARLY RELATIONSHIPS WITH INFANTS AND CHILDREN MATTER?

Human interaction is essential. Every single child deserves to have someone who adores them. This means that early relationships with caregivers are essential for healthy child development. These relationships create connections in a child's brain that allow them to feel safe and secure and to trust and love others. Without the feeling of safety and love, a child literally cannot grow. These are critical life skills for every child. The healthier and more satisfying relationships a child has, the better off he or she will be in the long run[5]. Healthy and happy children lead to healthy and happy adults.

Positive relationships are the primary way to lessen and heal the negative effects of hardships that children experience[2].

HOW DO FEEDING PRACTICES RELATE TO EARLY, POSITIVE RELATIONSHIPS?

In a baby's first 100 days of life, she experiences more than 300 hours of feedings. This means that there are hundreds of opportunities to positively shape a child's life just within the simple context of a meal[6]. Repeated experiences are the most influential and have the greatest potential to shape development[4]. This makes mealtimes the perfect opportunity to spend quality, meaningful time with a child and to make them feel loved — all while feeding their bodies and building strong brains.

Talking to a child while feeding them.

Offering physical comfort for a child when they do not feel well at a meal.

Making mealtimes positive using gentle touch.

Singing to a child during a break from feeding.

Eating with children and offering support during meals.

These are just some of the many ways caregivers can use best feeding practices to promote positive relationships during mealtimes. When caregivers take the extra care to provide best feeding practices, they are creating deeper connections that grow stronger and healthier children within our communities.

HOW TO USE THIS MANUAL

GETTING STARTED

THIS MANUAL HAS TWO PURPOSES:

① To be used as a reference tool to assist caregivers with feeding infants and children.
② To be used as a training tool to assist caregivers with sharing knowledge and skills with others within their work, home and community.

THIS MANUAL IS BROKEN DOWN INTO FOUR MAIN PARTS THAT INCLUDE 12 CHAPTERS:

- *PART 1:* Feeding Fundamentals
- *PART 2:* Feeding Across the Ages
- *PART 3:* Supporting Positive Feeding Development Across Special Populations
- *PART 4:* Appendix: Strategies, Handouts and Information for Caregivers and Communities

Each chapter consists of multiple sections that break down the information so that it is easier to find. You can find this breakdown of specific content and matching page numbers in the table of contents. Additionally:

- *CHAPTERS 1-8* are the "meat" of the manual, offering an abundance of information.
- *CHAPTER 9* offers extra strategies, techniques, illustrations, handouts and training activities.
- *CHAPTERS 10-12* offer descriptions of special words used in the manual, guidance for finding more resources and another avenue for navigating the manual.

OTHER USEFUL TIPS FOR USING THIS MANUAL

- To limit redundancy, information that applies to several ages and/or conditions has purposefully not been repeated. Caregivers may need to explore multiple chapters to locate more details to meet a child's specific needs.
- The terms "feedings" and "mealtimes" have been used interchangeably.
- The terms "he" and "she" when discussing infants and children have been used interchangeably.
- Many picture symbols have been used to help link similar content and increase understanding.
- Manual pages have been color coded to assist with easier navigation of information.

WAYS TO USE THIS BOOK

METHOD	STEPS TO TAKE
1	*START: Table of Contents* ① → Choose a PART ② → Choose a CHAPTER ③ → Choose a SECTION
2	*START: Table of Contents* ① → Locate PART 1 ② → Review any/all Fundamental SECTIONS
3	*START: Table of Contents* ① → Locate PART 2 ② → Choose an Age Range ③ → Review any and all corresponding SECTIONS
4	*START: Table of Contents* ① → Locate PART 3 ② → Choose a Diagnosis or Feeding Challenge ③ → Review any and all corresponding SECTIONS
5	*START: Common Feeding Challenges and Solutions Quick Charts (Appendix 9M)* ① → Review any/all corresponding CHAPTERS or SECTIONS
6	*START: For locating specific content by alphabetical order* ① → CHAPTER 12 (INDEX)
7	*START: For additional strategies, handouts, activities, meanings of words, resources* ① → CHAPTERS 9-12
8	*Read the manual in its entirety from start to finish.*

SHARING THIS MANUAL WITH OTHERS

WHO AND WHERE TO SHARE?

This manual is intended to be used by all caregivers within a child's life. Some of the information in this manual may be of interest to other health care workers, family members of children and community members. Because of this, certain pages in this manual have been created for copying and sharing with others. Depending on the needs of the individual, some may benefit from reading an entire chapter or section, or some may find it useful to refer to only certain handouts, illustrations, charts or activities.

FINAL THOUGHTS

People learn best when offered information in a variety of different ways such as written form or words, pictures, listening, watching, hands-on activities, etc. This manual offers written visual content as well as certain hands-on strategies.

However, to best support new learners, we recommend using the following sharing steps:

① Connect before you correct a learner.

② Explain the main information points, including how to do something and why.

③ Show the learner how: people often learn best with hands-on practice.

④ Practice with the learner and discuss how it went and how they feel afterward.

<u>Remember:</u> Everyone wants to do what is best for a child. Before we correct a behavior that seems "wrong" or unsafe, it's best to first connect (create a positive connection or interaction) with the learner before trying to help them change the behavior. When people are treated with respect and kindness from the beginning, they will be much more open to changing.

PART 1:
FEEDING FUNDAMENTALS: INFORMATION FOR SUPPORTING POSITIVE AND SAFE MEALTIMES

Chapter 1: Feeding Basics for Every Child and Caregiver

PART 1: FEEDING FUNDAMENTALS

INFORMATION FOR SUPPORTING POSITIVE AND SAFE MEALTIMES

CHAPTER 1: FEEDING BASICS FOR EVERY CHILD & CAREGIVER

"The simple act of caring is heroic."

Edward Albert

SECTION 1.1: POSITIONING BASICS

WHAT IS POSITIONING?

Positioning relates to the way we hold a child in our arms or our laps, and how we place a child in a chair, seat or on the floor for mealtimes.

The way we position a child will depend on:

① age of the child
② general developmental skills of the child, especially physical capabilities
③ individual needs of the child (e.g., higher elevation of body during feeding due to reflux, increased head/trunk support due to low tone, etc.)
④ caregiver's abilities
⑤ resources available in the environment

WHAT IS THE IMPORTANCE OF POSITIONING?[7]

Ensuring a child is properly positioned during feedings is critical to keeping them safe. When children are positioned properly during meals, in particular those with special needs, feedings are safer, more efficient and more comfortable for both the child and the caregiver.

BENEFITS OF GOOD POSITIONING	RISKS OF POOR POSITIONING
↓ INCIDENCE OF ASPIRATION, ILLNESS, DEATH	↑ INCIDENCE OF ASPIRATION, ILLNESS, DEATH
↑ efficiency of feedings (e.g., faster)	↓ efficiency of feedings (i.e., slower)
↑ oral intake during feedings	↓ oral intake during feedings
↑ capacity for children to try different food textures	↓ capacity for children to try different food textures
↑ breathing capacity	↓ breathing capacity
↑ digestion of foods and liquids	↓ digestion of foods and liquids
↑ skills for using vision and hands for self-feeding	↓ skills for using vision and hands for self-feeding
↑ capacity for children to feed themselves	↓ capacity for children to feed themselves
↑ enjoyment during feedings (for children & caregivers)	↓ enjoyment during feedings (for children and caregivers)
↑ growth and nutrition	↓ growth and nutrition
↑ capacity to interact socially with others	↓ capacity to interact socially with others

KEY ELEMENTS OF POSITIONING FOR ALL AGES

This section covers ideal positioning for children of all ages, including infants, toddlers, older children and children of all ages with disabilities. No matter a child's age, it is essential that a caregiver consider these six key elements when positioning any child for a meal.

KEY ELEMENTS	PROPER POSITION
Hips →	Positioned at 90 degrees
Trunk →	Upright, not leaning forward, backward or sideways
Shoulders →	Level and facing forward
Head →	Chin slightly tucked toward chest; head upright and facing forward
Knees →	Positioned at 90 degrees
Feet →	Supported on the floor, chair footrests or other object; flat position

COMMON POSITIONS ACROSS THE AGES[7]

Ideal positions for feeding a child will change as he or she grows older and as a child's development progresses. For example: As a young baby becomes older, bigger, and stronger, she will typically need less external support from a caregiver to keep her body in proper positioning for mealtimes. Shared below are common, optimal feeding positions for young babies and children. *Refer to Chapter 2, Section 2.3 and Chapter 3, Section 3.3 for illustrations and photos of each position listed below).*

BIRTH TO 3 MONTHS

Young babies 0-3 months old require complete support of the head, neck, trunk and pelvic area during all feedings. Total support is needed because young babies do not yet have enough strength to hold these areas in proper position on their own.

Common Feeding Positions:

Held in a caregiver's arms for breastfeeding and/or bottle feeding.

Bottle Feeding Positions:

- Cradle
- Side-Lying
- Reclined on pillows on lap of caregiver
- Seated in lap of caregiver
- Seated in infant carrier or seat

4 – 8 MONTHS OLD

Babies 4-8 months old typically demonstrate a need for moderate support of the head, neck, and trunk during feedings. As they near 8 months old, they may require even less support, showing the ability to sit upright on their own or when in a supportive chair. This is because a baby at this age is developing more physical strength throughout her entire body. Of note, babies in this age range are introduced to solid foods. Appropriate positioning support is required for a baby to successfully and safely handle this new experience.

Common Feeding Positions:

Held in a caregiver's arms for breastfeeding and/or bottle feeding. (Ideal between 4-6 months old)

Seated in a caregiver's lap, on the floor or in a supportive seat or chair. (Ideal between 6-8 months old when offering solid foods)

Bottle Feeding Positions:

- Reclined on pillows on lap of caregiver
- Seated in lap of caregiver

- Seated in a supportive chair or seat

Solid Food Positions:

- Seated in lap of caregiver
- Seated in a supportive chair or seat
- Seated on the floor with caregiver support

9 – 15 MONTHS OLD

Children 9-15 months old typically demonstrate a need for minimal to moderate physical support during feedings. They continue to develop improved physical strength and control throughout the entire body, sitting upright on their own, crawling, standing, walking and transitioning between positions (e.g., moving from sitting to standing). Of note, children in this age range are typically weaned off of bottles and introduced to cups for drinking. Additionally, solid food becomes more heavily relied on. Because of these new experiences, appropriate positioning support that matches a child's individual needs must be identified to help him become a successful and safe eater.

Common Feeding Positions:

Seated in a caregiver's lap, on the floor or in a supportive seat or chair.

Feeding Positions:

- Seated in lap of caregiver
- Seated in a supportive chair or seat
- Seated on the floor with caregiver support

16 MONTHS AND OLDER

Children 16 months and older typically demonstrate a need for minimal physical support during mealtimes. They are able to sit upright on their own and they enjoy eating with and around other people. Because of her growing strength and skill, a child in this age range can often sit in a booster chair at a table or sit in a child-size chair at a table equally sized to fit her needs. Although children of this age require less support, it is still important that any chair, seat or table they use appropriately supports each of the six key elements previously discussed.

Common Feeding Positions:

Seated in a caregiver's lap, on the floor or in a supportive seat or chair.

Feeding Positions:

- Seated in lap of caregiver
- Seated in a supportive high chair, booster chair or seat

- Seated on the floor with caregiver
- Seated at a child-size table and chair set
- Seated in an appropriately sized or modified wheelchair or adaptive stroller or chair

POSITIONING TIPS FOR ALL AGES

TIP 1:

Always consider the individuality of a child when choosing a feeding position and level of support. As children become older and stronger, most who are developing typically will require less support for maintaining a good position during feedings. However, every child is different and will not always follow this path, so care must be individualized.

TIP 2:

Always consider a child's developmental skill level when choosing a feeding position. Choose a position based on needs, skill-level and age. For example: A 3-year-old child who has very weak muscles (low tone) may require extra supports to hold his head upright in a chair for mealtimes, despite being "old enough" to sit in a chair.

TIP 3:

Always consider the comfort of the caregiver during a feeding. Observe how your body feels when feeding a child. Is your back hurting? Are you slouched in an uncomfortable position? Is a child too heavy? Can you maintain the position for the length of the meal? Find a position that not only meets the needs of the child, but that is also sustainable and healthy for you.

TIP 4:

Always remember that children grow. As a child gets bigger and as their skills develop, the position they eat in may need to change. It's normal and essential for positions to change over time to fit a child's growing needs.

TIP 5:

Always remember that finding the best position can sometimes take a lot of work. Even a child who is typically developing, may require caregivers try different positions until they find the one that works just right. Take your time, watch and see how a child responds and make small changes as needed.

FINAL THOUGHTS

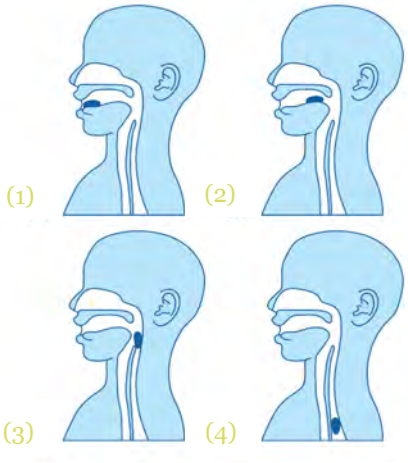
Finding the proper positioning for a child is not always an easy task. It can take time, effort, thought, practice and patience. When unsure about the best position for a child, seek out the support of others. Often, sharing challenges or questions with other caregivers and team members can lead to greater problem-solving and creative solutions as well as alleviate stress.

- *For more age-specific positioning information, refer to Chapters 2, 3, 4, and 5.*
- *For more information on positioning the child with special needs, refer to Chapter 7.*
- *For more information on creative seating, refer to Chapter Appendix 9I.*
- *For more information on quick positioning challenges and solutions, refer to Chapter Appendix 9M.*

SECTION 1.2: SWALLOWING BASICS

WHAT IS SWALLOWING?

Swallowing is the movement of saliva, liquids and foods from the mouth into the stomach. Swallowing requires coordinated use of 26 muscles. The average person swallows 600-900 times per day, and it takes approximately 7 seconds to pass food from the mouth to the stomach. For something we do so often and so easily every day, it's a very complex process.



HOW DO WE SWALLOW?

Swallowing can be separated into four phases:

(1) *Phase 1:* Oral Preparatory
(2) *Phase 2:* Oral Transit
(3) *Phase 3:* Pharyngeal
(4) *Phase 4:* Esophageal

(1) Oral Preparatory phase: Food and liquid in the mouth are prepared for swallowing. For liquids, this means sucking to pull liquids into the mouth while the tongue moves them to the back of the throat. For solid foods, this means the teeth, lips, cheeks, tongue and jaw work together to form a cohesive chunk of food to be swallowed.

(2) Oral Transit phase: Movement of the food or liquid from the tongue toward the back of the mouth and throat to start the swallow. The soft palate (top back portion of the roof of mouth) moves up and toward the back of the throat to block food and liquid from going in the nose. The airway to the lungs is open, allowing breathing to occur during this time.

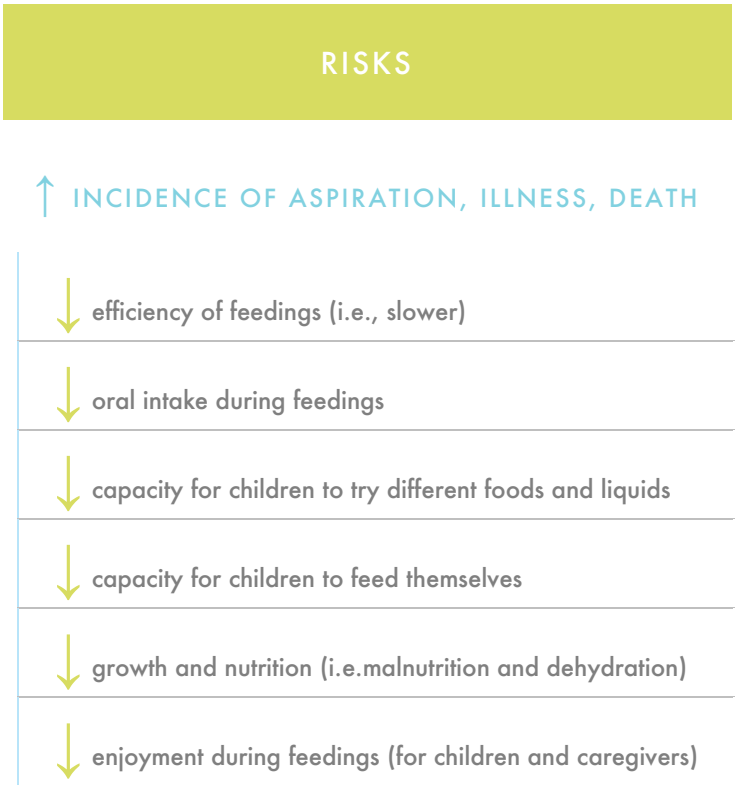
(3) Pharyngeal phase (throat): Food enters the pharynx (throat). The airway to the lungs is closed off by a flap of tissue (epiglottis) that covers the opening of the trachea (windpipe that leads to the lungs). The vocal folds are also at the top of the airway. They close during this phase to add more protection so that food and liquid don't move into the lungs.

(4) Esophageal phase: The food and liquid moves from the top of the esophagus to the stomach. This phase happens on its own and is caused by muscle contractions. There is a circular muscle that relaxes so the food and liquid can go into the stomach. Once the food or liquid moves into the esophagus, the epiglottis opens to allow for breathing

WHAT IS THE IMPORTANCE OF SWALLOWING?

Eating and mealtimes should be enjoyable and fun daily activities for children. However, when challenges with swallowing arise, eating can become uncomfortable, scary and even life-threatening. Proper swallowing helps with the digestion of food and liquid. It also prevents food and liquid from going into the lungs, which can lead to serious health issues.

Challenges or difficulties swallowing are linked with the following risks:



WHAT IS ASPIRATION?[7]

Aspiration is when food or liquid pass into the lungs instead of moving into the stomach where they belong. When this occurs, depending on the child, how often they aspirate and how much they are aspirating, it can lead to illness, malnutrition, dehydration and even death.

There are many reasons why children aspirate such as:

- Gastroesophageal reflux disease or reflux (for example: food or liquid from stomach is vomited up and goes into the lungs)
- Abnormal anatomy (for example: cleft lip/palate)

- Impaired anatomy (for example: paralyzed vocal folds)
- Delayed growth (for example: baby born early — prematurity)
- Brain injury (for example: child with cerebral palsy)
- Muscle weakness or rigidity (for example: child with Down syndrome or cerebral palsy)
- Muscle discoordination (for example: child with cerebral palsy)
- Medical procedures (for example: tracheostomy, nasogastric feeding tube)

Figure shows normal swallowing and no aspiration with liquid moving down the esophagus.

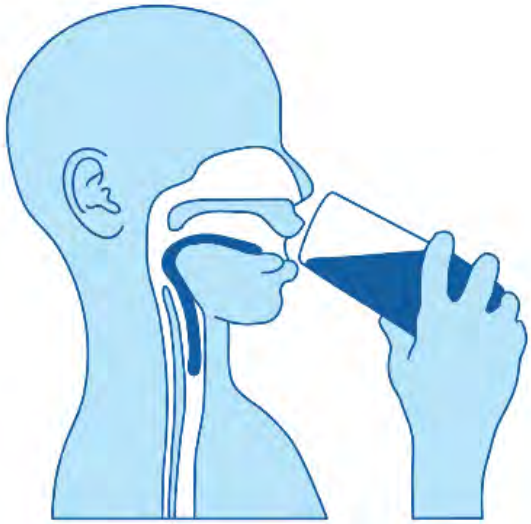


Figure shows dysfunctional swallow and aspiration of liquid moving down the trachea toward the lungs.

KEY SIGNS FOR IDENTIFYING SWALLOWING CHALLENGES

SIGNS AND SYMPTOMS OF SWALLOWING CHALLENGES	DESCRIPTIONS (WHAT IT LOOKS LIKE)
Coughing or Choking 	Child coughs or chokes during or after swallowing food or liquid
Gurgly "wet" Sounding Voice or Breathing 	Child's voice or breathing sounds wet during or after swallowing food or liquid
Complaints of Discomfort 	Child experiences sensation of food being stuck in throat during, following and/or in-between meals; reports pain or discomfort with eating/drinking or food comes back up into mouth after swallowing
Watery Eyes 	Child's eyes water during or after swallowing food or liquid
Change in Color 	Child's face changes color (pale, red, or purple/blue) during or after swallowing food or liquid
Fever 	Child experiences fever following a meal
Facial Grimace 	Child displays uncomfortable faces during or following feedings
Change in Breathing 	Child's breathing becomes unusually fast or slow, child stops breathing while feeding or child wheezes or gasps for air during or after swallowing food or liquid
Lung Infections 	Child experiences infections in the lungs or airway

SWALLOWING SAFETY TIPS FOR ALL AGES

TIP 1:	Always consider the individual needs of a child when choosing a level of support. As children grow and develop, their swallowing skills can also change. They may require less or more support. Care must be individualized and strategies must be regularly evaluated and changed as necessary.
TIP 2:	Good positioning is key. Finding a safe and comfortable position for a child is critical when it comes to swallowing safety, efficiency and maintaining the health of a child.
TIP 3:	Small and slow. Keep bite and sip sizes small and use a slower rate of feeding. The slower the rate of eating and drinking and the smaller the bites/sips, the easier and safer it will be for a child to swallow.
TIP 4:	Adjust texture or thickness of foods and liquids. Liquids may need to be thickened and specific food textures may need to be modified to make feedings safer and more comfortable for a child.
TIP 5:	Change how you are feeding a child. Feeding supplies may need to be changed (for example: use a different nipple, cup or chair) to make feedings safer and more comfortable for a child.
TIP 6:	Children learn best in the context of positive relationships. Offering positive interactions with a child during feedings is the best way to support this process.
TIP 7:	Always remember that finding what works best can sometimes take a lot of work. Caregivers may need to try many strategies to find what is safest and works best for a child. Take time, watch how a child responds and make small changes gradually.

FINAL THOUGHTS

Recognizing when a swallowing problem exists and ensuring proper swallowing guidelines are followed for children is a critical element of safe feeding practices. The health and well-being of every child depends on caregivers who are perceptive, supportive and quick to respond to a child's needs. When unsure about how a child is swallowing or when looking for ways to better support swallowing, seek out the support of others. Often, sharing challenges or questions with other caregivers and team members can lead to greater problem-solving and creative solutions as well as alleviate caregiver distress

For more specific information on food textures and liquid consistencies to support safer swallowing, refer to Chapter 1, Section 9 and Appendix 9C.

For more specific information on modifying foods and liquids, refer to Appendix 9E.

SECTION 1.3: SENSORY SYSTEM BASICS

WHAT IS THE SENSORY SYSTEM?[9]

The sensory system is a complex group of neurons (cells in the body), cell pathways and parts of the brain that work together to allow an individual to feel different sensations from the environment. There are eight senses that make up our sensory systems.

① Seeing (Vision)
② Hearing (Auditory)
③ Smelling (Olfactory)
④ Tasting (Gustatory)
⑤ Touching or Feeling (Tactile)
⑥ Joint and Muscle Awareness (Proprioceptive)
⑦ Balance and Movement (Vestibular)
⑧ Internal Body Awareness (Interoception)

Every child has a sensory system that is unique to him. It is the job of the caregiver to discover a child's sensory preferences (what sensations his body likes most and least) and any sensory challenges in order to make mealtimes (and all daily activities) more comfortable and manageable.

TYPES OF SENSES[9,10,11]

There are eight different senses that make up the sensory system of every single person.

SENSE	DESCRIPTION	EXAMPLE
Seeing (Vision) 	Information that comes to the body through the eyes (what one sees)	Bright lights, dim lights, colors, shapes, faces, fast- or slow- moving objects, distance to objects and faces (near or far), etc.
Hearing (Auditory) 	Information that comes to the body through the ears (what one hears)	Loud and soft noises, voices, music, high- and low-pitched sounds, etc.
Smelling (Olfactory) 	Information that comes to the body through the nose (what one smells)	Strong and light smells, unpleasant and pleasant smells, scents of people, places and foods/liquids, etc.
Tasting (Gustatory) 	Information that comes to the body through the tongue (what one tastes, eats or drinks)	Different flavors (sweet, sour, salty, bitter, etc).
Touching (Tactile) 	Information that comes to the body through the skin and mouth (what one feels on the body)	Light touch, deep pressure touch, temperatures, pain, vibration, different textures (smooth, lumpy, crunchy, hard, etc).
Balance and Movement (Vestibular) 	Information that comes to the body through different movements (what one feels when the body moves up, down, backward, forward, sideways, rotationally, etc.)	Rocking, swaying, swinging, turning, bouncing, spinning, standing up, sitting down, balancing, etc.
Joints and Muscle Awareness (Proprioception) 	Information that comes to the body through sensations felt in the joints and muscles (what one feels when their body is in different positions and in contact with objects such as people, chairs or the ground)	Sitting, walking, running, crawling, climbing, stomping feet, jumping, clapping hands, pushing and pulling heavy items, lifting and carrying items, etc.
Recognizing Sensations Inside the Body (Interoception) 	Information coming from within the body that relates to one's physical state or condition (what one senses from the organs)	Hunger, thirst, fullness, heart rate, breathing rate, temperature, bowel and bladder needs, etc.

All of these are examples of different types of sensory information we receive through our sensory systems. The information a child receives from the environment influences all of her daily activities, including mealtimes. For example:

MEALTIME SENSORY EXPERIENCES	SENSORY SYSTEM(S) INVOLVED
Bright lighting in a room. →	Seeing (Vision)
Food offered in a colored bowl. →	Seeing (Vision)
Loud noises from other children eating in a room. →	Hearing (Auditory)
How our bodies feel while seated in a chair or positioned for a meal. →	Touching/Feeling (Tactile) Joint and Muscle Awareness (Proprioceptive) Balance and Movement (Vestibular)
How our caregiver smiles while we eat together. →	Seeing (Vision)
Odor of food as it moves closer to our mouths. →	Smelling (Olfactory)
Flavors of food or liquids in our mouths. →	Tasting (Gustatory)
Textures of food in our mouths and on our hands when we feed ourselves. →	Touching/Feeling (Tactile)
How our stomachs feel empty at the start of a meal and full by the end. →	Internal Body Awareness (Interoception)

Eating is the most sensory rich activity a child will experience. This means that understanding how our sensory systems impact feeding development is very important.

WHAT IS THE IMPORTANCE OF THE SENSORY SYSTEM?

Every individual has a sensory system that is unique to them. The way a child's sensory system is made will impact the way he experiences the world, including feedings and mealtimes. For example, the different tastes and smells of a food can lead to a positive, enjoyable mealtime. However, if the tastes and smells are perceived as "bad," negative or unappetizing, this can lead to a stressful and unenjoyable feeding experience.

Sensory systems have a powerful impact on the success of mealtimes for our children.

BENEFITS OF THE SENSORY SYSTEM	DESCRIPTIONS (WHAT THIS LOOKS LIKE)
Learning and Developing in Daily Activities 	○ Teaches children about different kinds of sensory information that make up daily routines ○ Teaches children how to assess and respond to different sensory information ○ Teaches children about their own sensory systems (preferences, sensitivities, dislikes)
Developing A World View 	○ Provides children the chance to experience different types of sensory information that will help them thrive ○ Prepares children for a variety of sensory information they may encounter later on in life
Health and Well-being 	○ Allows children the chance to identify personal needs and to take care of themselves ○ Allows children more robust learning experiences ○ Supports children's total development

Children learn through their senses while they are growing in the womb and this learning continues the moment they are born.

SENSORY SENSITIVITIES: HYPERSENSITIVE AND HYPOSENSITIVE SENSORY SYSTEMS

A child may have a hypersensitive sensory system or a hyposensitive sensory system. We call these "sensory sensitivities." Children may also be overstimulated or understimulated in their environments and when they encounter certain sensory information. Because sensory sensitivities can make feedings much more challenging, it is important that caregivers are able to identify when a child may be showing areas of concern and that they know how to help.

COMMON SIGNS A CHILD MIGHT HAVE A SENSORY SENSITIVITY:

- Coughing, choking, gagging, spitting, vomiting with foods or liquids (especially when introduced new flavors or textures)
- Difficulty transitioning to new food flavors and/or textures
- Flinching, facial grimacing or pulling away during feedings
- Avoiding certain food flavors, textures or liquid consistencies
- Oral aversions or "refusals" to eat or drink
- Unusually long meal times (more than 30-40 minutes per meal)
- Overstuffing mouth with food or giant gulps of liquids
- "Pocketing" or holding foods in mouth for longer than expected (and child unaware)
- Foods, liquids or saliva falling out of a child's mouth or on to face (and child unaware)
- Frequent crying, fussing or unhappiness at meal times
- Frequent falling asleep at meals
- Frequent need for physical contact (deep pressure touch)
- Frequent avoidance of physical contact (especially light touch)

Hypersensitive (Increased Sensitivity): When a child shows a strong reaction to a specific sensation or sensory information. This reaction is stronger than we would expect.

Children with cerebral palsy often have hypersensitive sensory systems.

Common Examples of Hypersensitivity Reactions:

① Frequently startled by noises or touch
② Jerking, pulling away or withdrawing from touch (especially light or gentle touch)
③ Increased tightness in the body when fed by a caregiver
④ Covering ears in a noisy room
⑤ Closing eyes or falling asleep in loud or visually "busy" spaces
⑥ Preferring less food on a plate or tray at a time
⑦ Gagging on new food flavors or textures
⑧ Grimacing, gagging, vomiting or pulling away from certain foods
⑨ Shaking, rocking or banging body in loud or visually "busy" spaces
⑩ Low pain tolerance — may be easily hurt or in pain

Hyposensitive (Reduced Sensitivity): When a child shows a reduced reaction to a specific sensation or sensory information. This reaction is less than we would expect.

Children with Down syndrome often have ***hyposensitive*** *sensory systems.*

Common Examples of Hyposensitivity Reactions:

① Less responsiveness to loud noises or light touch
② Excessive need for deep pressure touch such as seeking out hugs and squeezes from caregivers, wanting rough and tumble play, crashing into objects and people, etc.
③ Stuffing mouth full of food sometimes causing gagging, vomiting or choking
④ Not noticing or sensing food, liquid or excessive saliva on the face or left in mouth
⑤ Preferring harder, crunchier textures to soft, smooth and wet textures
⑥ Preferring flavorful foods
⑦ High pain tolerance — may hurt self and not show any sense of pain or discomfort

Different sensory information can cause a child to have more hypersensitive and hyposensitive reactions or less hypersensitive and hyposensitive reactions. Understanding what a child may be reacting to in an environment, especially during mealtimes, can help caregivers limit a child's overstimulation or understimulation and make daily routines easier. Below are examples of common elements in our environments that provide sensory information that can help or hinder a child's development.

COMMON SENSORY INFORMATION	EXAMPLES
Lighting	Bright or dim, natural from outside, lamps, fluorescent lighting, etc.
Decorations in a Room	Painted walls, wallpaper, posters, pictures, windows, etc.
Noises	Music, voices, TV's, sounds from toys, street or city outside sounds, machine sounds, other children, etc.
Smells	Foods, liquids, perfume, soap, smoke, dirty diapers, trash, body odor, etc.
Touches	Holding, snuggling, diaper changing, dressing and undressing, face and hand wiping, crunchy food, etc.
Tastes	Food, liquid, spicy, sweet, sour, etc.
Movements	Rocking, swinging, crawling, walking, jumping, patting, bouncing, riding in a vehicle, being carried or held or picked up for diaper changes, etc.

WHY MIGHT A CHILD HAVE A SENSORY SENSITIVITY?

There are many reasons why a child may have a sensitive sensory system. As caregivers, sometimes we know these reasons and sometimes we do not. However, as caregivers, we can be aware of potential reasons and signs by learning about a child, and noticing how they are reacting during feedings as well as during other activities and routines throughout the day.

Common reasons a child might have a sensory sensitivity:

- Medical conditions or frequent medical procedures or hospitalizations (Autism spectrum disorders, visual impairments, hearing impairments)
- Children born early (prematurity)
- Children born exposed to substances (drugs and/or alcohol)
- Structural differences (specific syndromes, cleft lip/palate)
- Neuromuscular disorders (cerebral palsy)
- Developmental disabilities (Down syndrome)
- Social-emotional or environmental factors (limited experience, stressful experiences, force feeding, no access to positive and optimal caregiving)
- Frequent nasal congestion (limits ability to smell and taste; can lead to food refusals or reduced intake)

A child with cerebral palsy shows hypersensitivities to the touches he receives from his caregivers.

KEY ELEMENTS OF THE SENSORY SYSTEM[9]

KEY ELEMENTS	SENSORY SYSTEM CONSIDERATIONS
Listening to a Child	○ Notice what sensory preferences and needs a child displays during daily activities ○ Use a child's sensory preferences and needs to shape daily activities and make them more successful ○ Respect a child's signs when they are showing they are over or under stimulated by sensory information and provide necessary support, for example: • Change elements in activities based on a child's responses to sensory information (for example: feed a child in a quieter room after noticing she becomes frustrated and covers her ears in a noisy room)
Preparing the Environment	○ Make mealtime environments match the sensory needs of the child, for example: • Minimize distractions by changing (dimming) lights and (reducing) sounds in a room • Use soothing background music to support regulation (calming, body organization) and attention • Use lids to cover foods or liquids with strong smells • Offer utensils for children sensitive to touching foods with their hands • Face children away from "busy" rooms with lots of movement, colors, people and other visual distractions

Preparing the Child	○ Offer sensory based preparation activities that match a child's sensory needs before a meal, for example: • Let a child know that a mealtime is coming ("Five more minutes and then it's time to eat.") • "Wake-up" face and body activities (Refer to Appendix 9J) • Toothbrushing • Movement-based activities such as rocking, patting, bouncing or massage • Food exploration, including serving self and others foods
Preparing the Caregiver	○ Provide a comfortable position for the caregiver during feedings ○ Keep calm during feedings: Take deep breaths, play soothing music and talk quietly with the child ○ Understand that feeding a child with sensory sensitivities can be challenging and take time
Safe, Consistent and Comfortable	○ Limit frequent changes to mealtime routines–keeping the same feeder, chair, room, bowl, spoon, etc.–if change is necessary, make one change at a time ○ Show and tell a child what food/liquid he is being offered ○ Offer food or liquid slowly and never forcefully ○ Offer food or liquid first that are familiar to a child – then offer new flavors or textures

A young baby has a rich sensory experience mouthing on a bumpy baby chew toy while playing on his back. Early sensory experiences such as this build robust sensory systems.

SENSORY TIPS FOR EVERY CHILD[9]

TIP 1:	Listen to a child. A child will show you what his sensory preferences and needs are through his reactions and behaviors. Let a child show you what works best.
TIP 2:	Preparation is key. Preparing children before a meal is critical for a successful mealtime. Prepare the environment, the child's body and mind, and the caregiver.
TIP 3:	Preferences are different for everyone. Every child will have unique and different sensory preferences. These preferences can change often, too.
TIP 4:	Choose foods that are enjoyable. Offer items that a child can be successful eating and drinking and that will be enjoyable for her. Offer new items alongside these familiar items to increase a child's interest and comfort.
TIP 5:	Start with what is familiar. Children do best when consistent, familiar routines are used. Keep a schedule for meals, use the same feeder and feeding supplies, feed in the same chair and room and offer a child a familiar food/liquid first. Expand to new flavors and textures when a child is ready.
TIP 6:	Make changes one at a time. Children with sensitive sensory systems do well when changes are made one at a time versus all at once. Take your time when making changes to a mealtime, including offering a new flavor or texture.
TIP 7:	Offer lots of exploration time. Exploration of different non-food items and food items with different textures and flavors is a great way to support sensitive sensory systems. Let children explore items using all of their senses, but especially using their hands.
TIP 8:	Children learn best in the context of positive relationships. Offering positive interactions with a child during mealtimes (and beyond) is the best way to support this process.

FINAL THOUGHTS

All children have a sensory system that is special to them. These systems, whether highly sensitive or not, can impact mealtimes and feeding development. When caregivers discover how to best support a child's sensory preferences and needs, they allow children the chance to experience the world in a safer and more comfortable way. When met with sensory challenges, use this manual as a helpful resource along with seeking support from other caregivers.

For more information on different sensory strategies, refer to Appendix 9K and Appendix 9M.

SECTION 1.4: BREASTFEEDING BASICS

WHAT IS BREASTFEEDING?[12]

Breastfeeding, also known as nursing, is a primary way of feeding a baby. Breast milk is the most nourishing, ideal food for a baby, and breastfeeding is a powerful way to create the essential early connection between a mother and baby. When well-supported by a community, practically all mothers can breastfeed. Exclusive breastfeeding (providing only breast milk to a child – no formula, supplementation, water, food or other drinks) is strongly recommended for children 6 months and younger. After this time, children can begin trying age-appropriate complementary foods while continuing to receive breast milk.

When does breastfeeding begin?

Mothers should begin breastfeeding their babies as soon as possible within the first hour of life.

"Breastfeeding is one of the most effective ways to ensure child health and survival." – World Health Organization, 2018

WHAT IS THE IMPORTANCE OF BREASTFEEDING?[13]

BENEFITS OF BREASTFEEDING AND BREAST MILK	
FOR BABY	**FOR MOTHER**
Provides complete, optimal nutrition	Helps extend time between pregnancies
Promotes important brain development	Helps speed up recovery from childbirth
Provides protection from diseases and illnesses	Reduces risk of cancer and other illnesses
Helps speed up recovery from illnesses	Reduces costs compared to formula feeding
Reduces risk of death	Increases convenience and saves time (pick up baby and go, no bottle preparation, etc.)
Supports total growth, nutrition and well-being	Reduces hygienic demands (no bottle washing)
Supports a strong, early relationship with mother	Offers fulfillment for mother and supports early relationship with baby

Breastfeeding and breast milk offer numerous long-lasting benefits for both babies and mothers. Breast milk contains complete nutrition that aids overall child development, protection from illnesses (for baby and mother), reduced risk of death (for baby and mother), no added cost for families and the promotion of secure and satisfying early relationships that allow babies to thrive — breastfeeding and breast milk are truly remarkable.

Babies who receive only breastmilk are less likely to have asthma and allergies, and they have fewer instances of diarrhea, respiratory illnesses and ear infections.

REASONS WHY A CHILD MAY NOT BE BREASTFED OR RECEIVE BREAST MILK

There are many reasons why a child may not have the opportunity to be breastfed or receive breast milk. Sometimes we know these reasons and sometimes we do not. As caregivers, we can be aware of potential reasons and offer support to children and mothers alike. Also, if a child has one of the following reasons, it does not mean that they are unable to breastfeed. Children with health conditions actually benefit most from breast milk and breastfeeding. What it does mean is that they are at risk for having challenges with breastfeeding or they may lack the opportunity altogether.

Common reasons a baby might need special support to breastfeed or a child might not receive breastmilk:

① Medical conditions of the baby such as prematurity, illness, unable to be with mother after birth, etc.
② Medical conditions of the mother such as unable to be with child after birth, illness, disease, etc.
③ Structural differences such as specific syndromes or cleft lip or palate
④ Neuromuscular disorders (cerebral palsy)
⑤ Developmental disabilities (Down syndrome)
⑥ Social-emotional or environmental factors (baby does not have a mother, personal preference of the mother)
⑦ Educational and community support factors (mother does not know how to breastfeed, lack of support for mother from family or community)

This baby was abandoned at birth and placed in the care of a special institution that takes care of babies without families. Because her mother was gone, she was not able to breastfeed or receive breastmilk.

This young baby was born with a cleft lip and palate, which made breastfeeding more challenging.

This tiny newborn was born several weeks early. He needed special care at the hospital, which took him away from his mother. Breastfeeding was hard because he was so small and weak.

BREASTFEEDING AND BREAST MILK PRECAUTIONS[14,15]

Although breastfeeding and breast milk offer a multitude of benefits for a mom and her baby, there are a few reasons why a mother should not offer breastfeeding and/or breast milk to her baby.

Common reasons a mother SHOULD NOT breastfeed or offer breast milk:

- Mother is infected with HIV (human immunodeficiency virus) and she (1) cannot exclusively breastfeed for 6 months and (2) she is unable to or does not take antiretroviral drugs during the period of breastfeeding
- Mother is infected with T-cell lymphotropic virus type 1 or 2 (a virus spread by sexual contact, blood transfusions or sharing needles that can cause cancer)
- Mother has suspected or confirmed Ebola virus
- Mother uses street drugs such as cocaine, PCP, etc.
- Baby is diagnosed with galactosemia (a rare disorder that makes digestion of breast milk and regular formula dangerous)

New research shows that exclusive breastfeeding combined with the use of antiretroviral treatment can significantly reduce the risk of transmitting HIV to babies when mothers breastfeed.

Common reasons a mother should TEMPORARILY NOT breastfeed BUT CAN offer breast milk:

- Mother has active tuberculosis and she is not receiving treatment
- Mother has active varicella infection (chickenpox) that she developed during the five days before delivery up until the two days following delivery

Common reasons a mother should TEMPORARILY NOT breastfeed OR offer breast milk:

- Mother is infected with brucellosis (an infection caused by bacteria from infected animals or animal products) and she is not receiving treatment
- Mother has active HSV infection (herpes simplex virus) with lesions on the breast
- Mother is taking radiopharmaceuticals (medicines with radioactive traits used to diagnose or treat disease)
- Mother is taking certain medications that can harm the baby (alkaloids, antineoplastics, some anticonvulsants and certain levels of cyclosporine, amiodarone and lithium)

Mothers with tuberculosis can breastfeed when they have received treatment for at least 2 weeks and they are no longer considered contagious.

Mothers can offer breast milk without breastfeeding by using hand expression or a breast milk pump to remove milk from breasts and then offer to baby in a bottle.

COMMON BREASTFEEDING POSITIONS[16,17]

There are many different positions for breastfeeding a baby. The most common are shown in this manual. Each mother and child will find which position(s) works best for them. Each position offers different benefits; however, one benefit remains the same for all positionings: closeness for a mother and baby. When a mother is just beginning to breastfeed and learn about her baby, she may need extra support for the first few weeks. Although some babies quickly learn to latch to the breast and feed well from the start, many babies can be uncoordinated and extra support can be valuable.

If the current position does not feel right to a mother or for the baby, it's all right to try a different position. Sometimes mothers must try multiple positions until they find the "just right fit."

HOW TO CHOOSE A POSITION

Finding a good breastfeeding position for mother and baby will:

① Assist baby with getting a good latch, which helps baby receive the most milk
② Prevent sore nipples and breasts or nipple injuries (mastitis)
③ Support adequate weight gain of baby
④ Be comfortable for both mother and baby
⑤ Support longer durations of breastfeeding by the mother

A good latch is when a baby is well connected to the breast so that she can feed easily and be well nourished. A good latch can reduce the likelihood of soreness and discomfort for the mother when breast feeding.

CRADLE HOLD

HOW TO:

- Mother sits in a comfortable position.
- Baby lies facing mother on his side. (Use pillows, cushions or blankets if more comfortable for baby and mother.)
- Baby's body and side of head rest on mother's forearm.
- Baby's stomach should be facing mother's stomach.
- Baby's ear, shoulder and hip should be in a straight line with his head raised higher than his hips.

BEST FOR: All babies 0-12 months old

Mother supports baby using the same side arm and nursing breast.

CROSS-CRADLE HOLD

HOW TO:

- Mother sits in a comfortable position.
- Baby lies facing mother on her side. (Use pillows, cushions or blankets if more comfortable for mother and baby.)
- Baby's body and side rest on mother's forearm that is opposite of the nursing breast.
- Mother's arm supports baby's shoulders and neck allowing her to tilt her head for opening her mouth and latching.
- Baby's stomach should be facing mother's stomach.
- Baby's ear, shoulder and hip should be in a straight line with her head raised higher than her hips.

Mother supports baby using the opposite arm and nursing breast.

BEST FOR: All babies 0-12 months old

FOOTBALL HOLD

HOW TO:

- Mother sits in a comfortable position.
- Baby lies on his back, tucked between his mother's arm and chest. (Use pillows, cushions or blankets on mother's side or lap if more comfortable for mother and baby.)
- Baby's body is supported by mother's forearm.
- Mother's hand supports baby's shoulders and neck.

BEST FOR: All babies 0-12 months old. Mother's with larger breasts and/or discomfort after surgical birth.

Baby is on the side of mother and her legs are under her mother's arm.

SIDE-LYING POSITION

HOW TO:

- Mother lies on her side in a comfortable position.
- Baby lies on her side next to mother, stomach to stomach. (Use pillows, cushions or blankets if more comfortable for mother and baby).
- Mother supports baby's back using her arm that is closest to the floor, bed, blanket, etc.
- Can use rolled towel or blanket behind baby to support her back.

Baby and mother are both supported by a bed, couch, mattress, floor, etc.

BEST FOR: Most babies 0-12 months old. Recommended when baby is already nursing well sitting up.

Baby is supported by mother's body, leaving his body and head free to move.

SEMI-RECLINING POSITION

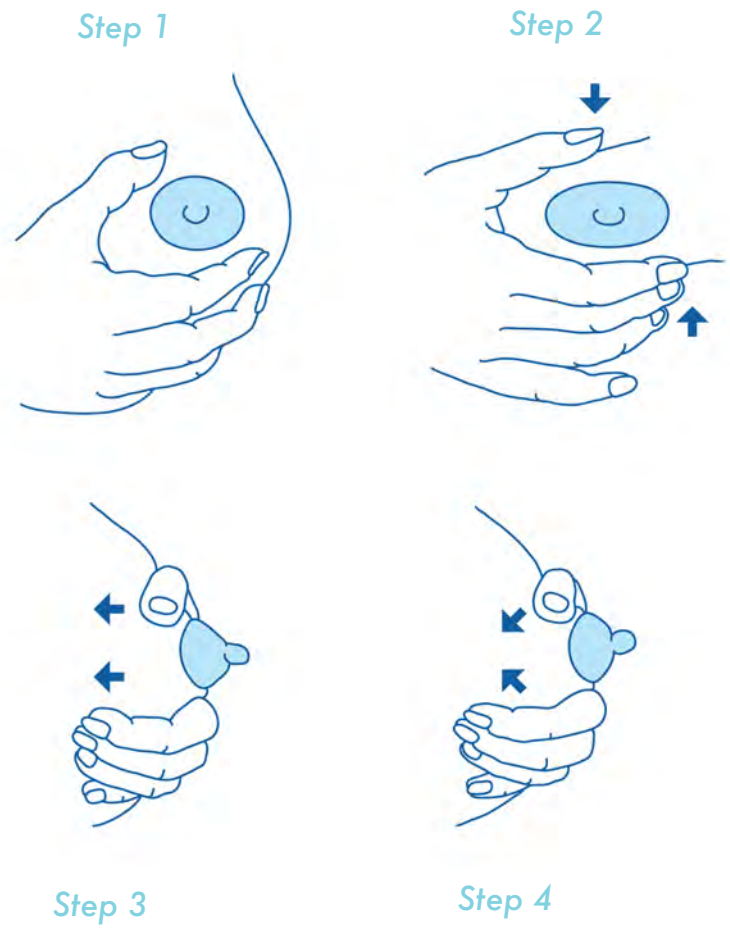
HOW TO:

- Mother sits/lies in a comfortable position.
  - Mother leans back (semi-reclined) seated in a chair, a bed or on the floor using pillows, cushions and blankets. (If in a chair, a foot rest is helpful to use.)
- Baby lies on top of mother (usually on his stomach).

BEST FOR: Most babies 0-12 months old. Mother's with fast flowing milk. Babies who need a slower flow of milk.

HOW TO GET A GOOD LATCH

When a baby is well-positioned, he will likely be well-latched. When a baby is well-latched, he will take in more nutrition leading to greater weight gain and growth.



Below are four steps for getting your baby to latch using the "nipple sandwich" technique:

Step 1: Mother places hand in "C" position around her breast, keeping her fingers and thumb away from the nipple.

Step 2: Mother gently squeezes her breast using her fingers and thumb, creating a narrower breast for baby to latch on. The nipple changes shape (from circular to oblong).

Step 3: Mother pushes her breast inward toward her chest/ribs, helping the nipple project forward for baby to latch on.

Step 4: Mother pushes her thumb inward even more, helping the nipple point slightly upward toward the inside-top of baby's mouth, which assists with latch. Then, mother encourages and supports baby with opening her mouth widely to latch by supporting the back of her head and gently pulling baby toward her breast.

Additional Latch Tips:

① Baby's body should be at the same height or lower than mother's nipple.
② Prior to latching, baby's head should slightly extend backward (while supported by mother's hand), allowing baby's mouth to open wide for latching.
③ Bring the baby to breast — avoid bringing the breast to baby.
④ Touch baby's top lip to the nipple to encourage an open mouth and latch.
⑤ Run nipple along baby's upper lip from corner to corner to encourage an open mouth and latch.
⑥ Position baby asymmetrically on the nipple by aiming baby's nose to the nipple. (Baby's mouth will appear off-center" – with the nipple.)
⑦ When latching, baby's tongue and bottom lip should connect with mother's breast first and then the top lip touches the breast.

KEY ELEMENTS OF BREASTFEEDING

KEY ELEMENTS	SUCCESSFUL BREASTFEEDING SIGNS
Feeding position matches baby's needs	○ Safe and supportive position that allows for good latch ○ Baby is comfortable ○ Position allows appropriate milk flow for baby ○ Position takes into consideration baby's size, skills and needs ○ Position allows for feeding to take 30 minutes or less
Feeding position matches mother's needs	○ Safe and supportive position that allows for good latch (and no pain for mother) ○ Mother is comfortable ○ Position can be maintained (comfortably) by mother for entire feeding ○ Position takes into consideration mother's size and needs
Feeding cues are understood and respected	○ Mother anticipates baby's hunger before baby starts to cry ○ Mother watches for baby's signs that he is hungry (Refer to Appendix 9L-1) ○ Mother watches for baby's signs that he is full (Refer to Appendix 9L-2) ○ Baby and mother enjoy feedings together
Mom and baby find a good latch	○ Baby able to latch in a timely manner ○ Baby able to nurse easily and efficiently ○ Baby feeds efficiently for 30 minutes or less ○ Baby gains weight and grows, showing she is getting enough milk ○ Mother is not in pain during, after or in between feedings
Social interaction is provided often	○ Mother smiles, talks, sings and gazes at baby during feedings ○ Baby enjoys feedings and actively participates ○ Mother enjoys feedings ○ Baby grows and thrives ○ Mother and baby grow closer and more well-connected

Signs of Trouble: Mothers and caregivers should watch for common signs that breastfeeding may not be going well such as nipple pain with feedings, breast engorgement, poor baby weight gain, infrequent wet or soiled diapers, frequent fussiness at the breast or difficulty getting baby to latch.

BREASTFEEDING TIPS

TIP 1:	Consider the individual needs of a mother and baby when choosing a feeding position. Every mother and child are different. Each pair are different shapes and sizes and have unique skills and needs. Each of these differences inform which position will work best.
TIP 2:	Consider the comfort of the mother. How does the mother's body feel when she breastfeeds her child? Does her back hurt? Does her arm become tired holding baby? Can she maintain the position for the length of the feeding? Find a position that not only meets the needs of the baby, but is also sustainable and healthy for the mother. Healthy and happy mothers are vital for growing healthy and happy children.
TIP 3:	As children grow, positions may change. As a child gets bigger and as their skills develop, the position they breastfeed in may need to change with them. It's normal and essential for positions to change over time to fit a child's growing needs.
TIP 4:	Finding the best position can take work. Sometimes mothers will need to try several positions until they find the one that works just right. Take your time, watch and see how a baby responds and make small changes as needed.
TIP 5:	Healthy mothers = healthy babies. It's important for mothers to take good care of themselves. This means eating healthy foods, drinking plenty of liquids, getting plenty of rest and avoiding high stress, smoking, drugs and alcohol, and certain medications.
TIP 6:	Seek out support as soon as possible. Although breastfeeding seems simple, it can take time and practice. It's common and acceptable for women to seek help, especially new mothers or mothers of babies with special needs. When mothers are struggling with breastfeeding, it's important they seek support as soon as possible from skilled family or community members.

FINAL THOUGHTS

Breastfeeding is a beautiful act of love that a mother offers to her child. And with this great act, come many incredible benefits for both baby and mom. Some mothers will not need any additional support when breastfeeding their child. However, many mothers do greatly benefit from the assistance, support and care of family and community members. Use this manual as a helpful resource for yourself if you are a mother, or when supporting mothers in your community. Additionally, when met with questions about breastfeeding or challenges, seek out the support of others. Often, sharing challenges or questions with other mothers, caregivers and team members can lead to greater problem-solving and creative solutions as well as alleviate caregiver distress.

For more information on Breastfeeding, refer to Appendix 9J-1, Appendix 9I-1 and Appendix 9N.

SECTION 1.5: BOTTLE FEEDING BASICS

WHAT IS BOTTLE FEEDING?

Ideally, all babies would be breastfed. However, this is not always possible. Bottle feeding offers another way to provide babies with necessary nutrition. There are many different types of bottles and nipples that can be used for feeding depending on a baby's needs. Additionally, breast milk and formula can both be offered in a bottle.

WHAT IS THE IMPORTANCE OF BOTTLE FEEDING

Bottle feeding is important because:

① It is often the first experience a baby has with feeding.
② It assists with the development of other important skills for feeding and talking such as chewing foods, eating or drinking off of utensils and cups.
③ It offers babies the frequent experience of closeness and interaction with a responsive and attuned caregiver.

WHAT ARE THE BENEFITS OF BOTTLE FEEDING?

Bottle feeding has many benefits for both babies and their caregivers. When good bottle feeding is provided to babies, feedings are safer, more efficient and more enjoyable.

Good bottle feeding:

① Helps babies feel warm and full
② Offers comfort and warmth from a caring adult
③ Teaches children they can depend on others to take care of them and meet their needs

BENEFITS OF GOOD BOTTLE FEEDING	RISKS OF POOR BOTTLE FEEDING
↓ OCCURRENCE OF ASPIRATION, ILLNESS, DEATH	**↑ OCCURRENCE OF ASPIRATION, ILLNESS, DEATH**
↑ efficiency of feedings (faster)	↓ efficiency of feedings (slower)
↑ oral intake during feedings	↓ oral intake during feedings → food refusals
↑ enjoyment during feedings (for children and caregivers), and positive feelings toward eating develop	↓ enjoyment during feedings (for children and caregivers), and negative feelings toward eating develop
↑ capacity for children to transition to greater challenges (solid foods, cup drinking, utensil use)	↓ capacity for children to transition to greater challenges (solid foods, cup drinking, utensil use)

TYPES OF BOTTLES AND NIPPLES[18]

There are many different types of bottles and nipples, including various shapes, sizes, styles and materials. It's important that the nipple shape, size and flow speed match a baby's mouth, sucking skills and developmental and physiological needs. So, as caregivers, it's helpful to understand the differences in order to make the best choice for each baby.

BOTTLE SHAPES: STANDARD ("STRAIGHT") OR BENT ("ANGLED")

Standard "straight" bottles are most common and typically the easiest to find. Bent "angled" bottles are helpful for keeping a baby's chin tucked while bottle feeding. They are also designed to reduce gas and fussiness by limiting a baby's opportunity for swallowing air when fed.

BOTTLE SIZES: SMALL AND LARGE

Smaller bottles (120 ml or less) are useful when the baby you're feeding is small and he isn't yet taking large volumes. Larger bottles are helpful because they hold greater volumes of liquid for the growing baby. Pro-Tip: Smaller bottles are easier for a baby to hold when they are learning how to feed themselves. Smaller bottle = lighter weight.

BOTTLE MATERIALS: PLASTIC AND GLASS

Plastic baby bottles are most common and typically the easiest to find. They also won't break if dropped and they are lightweight, which can be nice for a caregiver. Glass bottles are sturdier; however, they can break if dropped and they are much heavier to hold for caregivers and babies.

BOTTLE NIPPLE SHAPES

Nipples come in a variety of shapes. Standard nipples are typically tall or "long" and round on the top. Orthodontic nipples are made to fit the inside of a baby's mouth. They are typically wide at the base and tip and narrow in the middle. Other nipples are shaped to look like a woman's nipple. Nipples are made in different shapes because every baby's mouth is shaped differently. For example: Some babies need a shorter nipple to fit inside their small mouth.

From Left: Straight nipple, natural nipple, and two varying standard nipple sizes.

BOTTLE NIPPLE SIZES

The nipple size determines the actual flow of the liquid from the nipple. The size given to a nipple denotes the size of the hole. Typically, the smaller the size (number), the slower the flow of liquid from the nipple. The larger the size (number), the faster the flow of liquid from the nipple. It's important to understand the flow of the nipple because choosing the wrong size may lead to a baby who feeds in an unsafe or uncomfortable manner (too slowly, too quickly or swallows too much air).

Below are typical nipple sizes (or levels) in order from smallest hole (slowest rate) to largest hold (fastest rate).

Level #: Nipple levels can usually be found printed on the bottom or side of the nipple. Look closely as they are sometimes very small and hard to see!

NIPPLE SIZE/LEVEL	TYPICAL AGES
Ultra-Preemie Size	Premature babies → 3 months old
Preemie Size	Premature babies → 3 months old
Size/Level 1	0 → 6 months old
Size/Level 2	> 6 → months old
Size/Level 3	> 6 → months old
Size/Level 4	> 6 → months old

Remember: Nipple sizes/levels and associated ages are a general guideline and do not necessarily need to be strictly followed for every baby. Not every baby will use every size of nipple. Some babies will use the same size nipple for the entire time they are bottle fed. It is most important to choose a nipple size based on what the baby's needs are and what flow rate they are best able to safely manage.

Remember: Nipples should never be cut to change the flow rate. This can be dangerous for a baby.

A caregiver feeds a young baby using a Dr. Brown's standard shaped plastic bottle and standard nipple.

BOTTLE NIPPLE MATERIALS

Bottle nipples are typically made of silicone or latex. Many babies will often have a preference or a need for a specific material. For example: A baby with a weak suck may be more successful when sucking from a softer latex nipple. Note: Be mindful of latex allergies. Below are the primary differences between silicone and latex nipples.

Silicone	*Latex*
More Durable	Softer
Easier to clean	Can hold odor of formula or milk
Can last up to 1 year	Wears out faster

WHEN TO CLEAN AND REPLACE BOTTLES AND NIPPLES

Always boil in hot, soapy water or in a dishwasher if available

Always sterilize bottle and bottle parts in boiling water for five minutes

Always wash bottles and nipples after every single feeding

Regularly check nipples wear and tear

Always replace any bottles and nipples that show signs of excessive wear or

KEY ELEMENTS OF BOTTLE FEEDING

KEY ELEMENTS	SUCCESSFUL BOTTLE FEEDING SIGNS
Feeding position matches a baby's needs	○ Safe, supportive, and follows key elements of positioning (Refer to Chapter 1, Section 1) ○ Baby and caregiver are comfortable ○ Baby is engaged for feeding (not falling asleep) ○ Baby is calm for feeding (not fussy) ○ Feeding takes 30 minutes or less
Bottle, nipple and flow rate match a baby's needs	○ Rate is not too fast or too slow for baby ○ No leaking liquid from mouth, frequent coughing, choking or gagging ○ Baby is alert and engaged for feeding (not falling asleep) ○ Baby comfortably sucks, swallows and breathes while feeding – no gasping for breath ○ Baby is calm for the feeding (not fussy) ○ Feeding takes 30 minutes or less
Feeding cues are understood and respected	○ Caregivers anticipate baby's hunger before baby starts to cry ○ Caregivers anticipate baby's fullness promptly and do not overfeed or force feed ○ Baby enjoys feedings and actively participates
Breaks are provided as needed	○ Caregivers offer breaks for burping, diaper changes or positioning changes ○ Caregivers offer smaller, more frequent feedings, if needed ○ Caregivers are attentive to baby's signs of fatigue (Refer to Appendix 9L-2) ○ Baby feeds efficiently for 30 minutes or less
Social interaction is provided often	○ Caregivers smile, talk, sing and gaze at baby during feedings ○ Baby enjoys feedings and actively participates ○ Baby grows and thrives

BOTTLE FEEDING TIPS FOR BABIES

TIP 1:	Each baby needs individual consideration when deciding on a bottle, nipple and flow rate. Not every baby will do well with the same bottle, nipple and flow rate. Choose what will work best to match a baby's individual needs.
TIP 2:	A baby's developmental skill level will impact the bottle, nipple and flow rate they need. Choose based on a baby's needs, skill-level and age. For example: A 4-month-old baby who is very weak may do best using a slower flow nipple, despite her growing age.
TIP 3:	Pay attention to what the baby is telling you. Make changes to a bottle, nipple or flow rate when the baby is showing you that a change needs to be made.
TIP 4:	Always check the flow rate of the bottle before beginning a feeding. An ideal flow rate from a nipple is when a few drops of liquid drip out after turning the bottle upside down. The dripping should stop shortly afterward. If liquid is too fast for a baby, try a nipple with a smaller hole. If liquid is flowing too slowly for a baby and they are sucking too hard, try a nipple level with a larger hole.
TIP 5:	Finding the best bottle, nipple, and/or flow can sometimes take a lot of work (but it is worth it). Even a baby who is typically developing may require caregivers try different options until they find the one that works just right. Take your time, make one change at a time so that a baby is not overwhelmed, watch and see how a baby responds, and make small adjustments as needed.
TIP 6:	Good positioning will lead to good bottle feeding. Finding a safe and comfortable position for a baby during bottle feedings is critical. Provide a position that offers adequate physical support and make necessary adjustments.
TIP 7:	Always make a connection. Offer positive interactions with a baby while bottle feeding each and every day. Many babies will actually feed better when gently spoken and sang to, smiled at and engaged with during a feeding.

FINAL THOUGHTS

The primary goal of bottle feeding is to provide positive feeding experiences for both a baby and caregiver that also supports the nutritional intake and growth of the baby. Not all bottles, nipples and flow rates will work with every baby. Finding a bottle, nipple and flow rate that are a good match for a baby is essential. When experiencing challenges, seek support of others. Sharing past experiences, challenges and questions can lead to greater problem-solving and creative solutions and alleviate caregiver and child distress.

For more information on positioning, refer to Chapter 1, Section 1 and Chapter 2, Section 3.

For more information about bottle feeding challenges, refer to Chapters 2 and 7 and Appendix 9M.

SECTION 1.6: SPOON FEEDING BASICS

WHAT IS SPOON FEEDING?

Spoon feeding is typically the first feeding step that a child experiences after breast or bottle feeding. Spoon feeding is usually introduced around 6 months old. This starting age is important because it's when a child has stronger muscles in her head, neck and trunk and she has learned to control her body for sitting and eating solid foods. At this age, children are also learning to bring objects to their mouths ("mouthing"), and they are exploring the world by mouthing everything. It's an exciting and important stage in a child's development.

WHAT IS THE IMPORTANCE OF SPOON FEEDING?

Spoon feeding is important because:

① It is a primary step toward developing oral motor skills.
② It provides the chance to explore new textures.
③ It develops a child's sense of taste.
④ It assists with developing skills for cup drinking and chewing.
⑤ It is a fun and new experience and way for a child and caregivers to interact

BENEFITS OF SPOON FEEDING	DESCRIPTIONS (WHAT THIS LOOKS LIKE)
Oral Motor Skills 	○ Teaches children how to open and close their mouths ○ Teaches children how to remove food from a spoon using their lips ○ Teaches children how to move food around in the mouth using their tongues
Sensory Development	○ Introduces new and different food flavors, textures, temperatures and thicknesses for developing taste

Relationships and Language

- Provides children the chance to engage in meaningful interactions with caregivers
- Prepares children for social routines for mealtimes (hand washing, sitting to eat, taking turns, using language, following directions, etc.)

TYPICAL SPOON FEEDING TIMELINE: DEVELOPMENTAL STEPS FOR SPOON FEEDING[9]

There is a typical time frame (age range) for when a child learns to eat from a spoon. However, it is imperative to also consider a child's developmental skill level when deciding when to introduce spoons. Although a child may be a certain age, it is more important that he has the necessary skills in order to become successful eating from a spoon.

A child will show you when he is ready to eat from a spoon and which spoon works best.

Below are the typical developmental skills that support the process of learning to eat from a spoon and the developmental age at which they are often seen.

DEVELOPMENTAL AGE	DEVELOPMENTAL SKILL
2 Months	Child can bring hands to mouth when on tummy
3 Months	Child can bring hands to mouth when on back
4 Months	Child can bring hands to mouth when holding objects
9 Months	Child can hold and bang a spoon
12-14 Months	Child can bring a spoon with food to mouth – will turn spoon over when moving to mouth
15-18 Months	Child can scoop food onto a spoon and bring to mouth – some spilling
24 Months	Child can feed himself from spoon with his palm of hand facing up
31-32 Months	Child can feed himself well with minimal spilling
30-36 Months	Child can use a fork to poke foods

Learning to eat from a spoon takes practice and time. On average, children will master using a spoon by 2-3 years old. This means they will need extra support from caregivers for quite some time. Be patient.

TYPES OF SPOONS[9]

There are many different types of spoons of various shapes, sizes, styles and materials. Whatever the type of spoon chosen, it must match a child's mouth size and shape and her developmental needs. It's helpful for both caregivers and the child to understand the differences in order to make the best choice for every child.

SPOON SHAPES: WIDE AND NARROW; DEEP AND SHALLOW BOWLS

Spoons come in a variety of shapes, in particular, the bowl of the spoon can vary greatly. Spoons can have a wide or narrow bowl and the bowl can be shallow or deep. Deeper bowls require more effort and skill removing food from the spoon. Shallow bowls require less effort and skill and can be helpful when working with new feeders or children with poor oral motor skills. For example: A young child with a small mouth will have difficulty eating from an adult sized (wide and deep) bowl of a spoon. She will do better with a narrow and shallow bowl that fits her smaller mouth.

Top Photo (Left to Right): Narrow and Wide Spoons

Side Photos (Left to Right): Deep Bowl and Shallow Bowl of Spoons

When choosing a spoon, the shape of the bowl must match (fit) the size and shape of the child's mouth.

Select a handle that suits the primary feeder best.

SPOON SIZES: LONG AND SHORT HANDLES

Choosing a spoon with an appropriately sized handle depends on if the child is self-feeding or being fed by a caregiver. Smaller, child-sized handles can become tiring for caregivers to use, while longer handles can make aiming for the mouth more challenging for children feeding themselves. If both the caregiver and child are doing the feeding during a meal, try using two different sized spoons.

SPOON MATERIALS: METAL AND PLASTIC; HEAVY AND LIGHT

Spoons can be made of different materials (metal, plastic, coated). Children will often have a preference or need for a specific material. Although metal spoons are more durable, for children with sensitive mouths, the cold and hard feeling can be off-putting. Metal spoons are also heavier to hold and they can damage a child's gums or teeth if they bite down on them. Plastic spoons can be more comfortable for children and lighter when held, but they aren't as durable. They can also be dangerous for children with strong bite reflexes. Spoons with a coated bowl are helpful for children who are prone to biting or who are hypersensitive.

Caregivers must choose a spoon that is safe, allows for easy self-feeding and fits the child's unique sensory and physical needs.

WHEN TO CLEAN AND REPLACE SPOONS

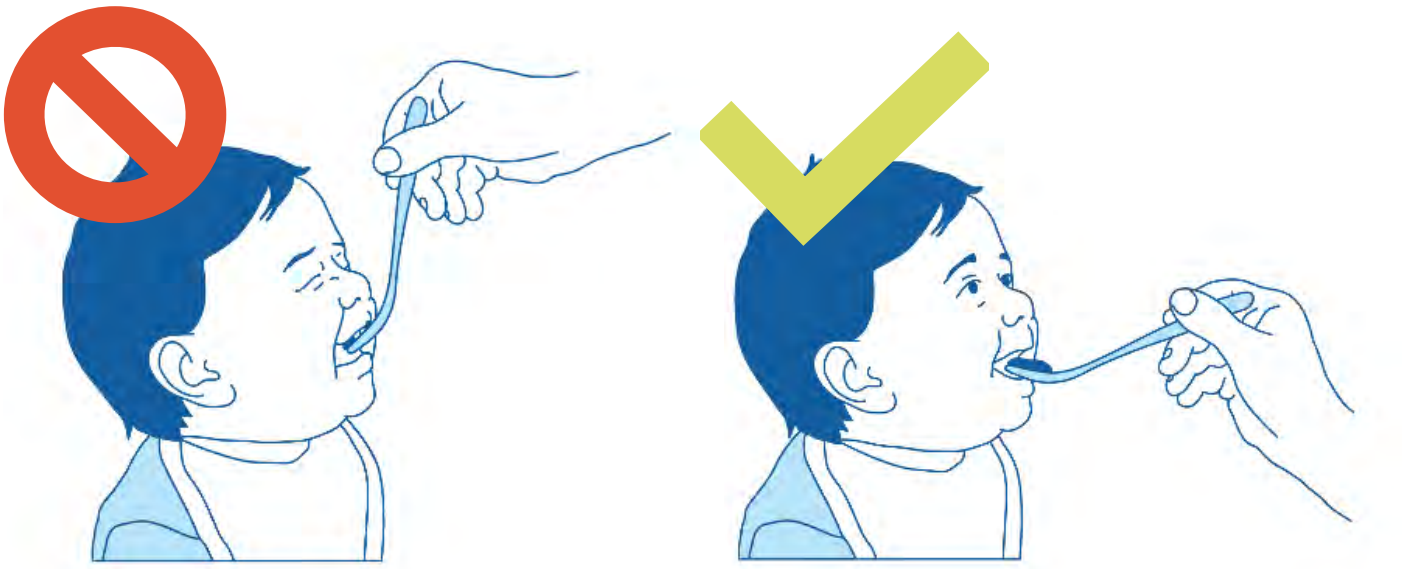
Before using new spoons, always wash them in hot, soapy water or in a dishwasher. Spoons should also always be washed after every single feeding. Always replace any spoons that show signs of excessive wear or that may be harmful to a child.

Young children enjoy feeding themselves using spoons that fit their smaller sized hands and mouths. When given the right spoons, feeding yourself becomes easier.

GENERAL INSTRUCTIONS FOR SPOON FEEDING[19]

- ***Step 1:*** Introduce spoons when a child shows they are physically ready (sitting up and holding head and neck upright, of an appropriate age and is showing interest in spoons and solid foods).
- ***Step 2:*** Offer tastes of food on a pacifier or finger if introducing a spoon is challenging or upsetting to a child.
- ***Step 3:*** Hold the spoon 25 to 30cm (10-12 inches) from the child's face. Let him see the spoon and wait for him to open his mouth to show he is ready.
- ***Step 4:*** Place the spoon on the child's bottom lip and let him suck or remove the food off of the spoon.
- ***Step 5:*** Place the spoon in the middle of the child's tongue.
- ***Step 6:*** Let the child try to remove the food from the spoon using his lips. Or pull the spoon directly out of the child's mouth.

- *If a child is not interested or is distracted, do not force or slip the spoon into his mouth. This can lead to food refusals.*
- *Do not place food at the top of the child's mouth and scrape off onto the top lip or gums. This is not where food naturally goes. It does not allow the child to be an active eater, using his lips and tongue and cheeks to remove the food themselves.*
- *Do not place a spoon deep in a child's mouth. This can lead to gagging and vomiting.*
- *Do not scrape food off of a child's lips or face. This can lead to spoon feeding refusals because it doesn't feel good.*



Improper (left) and proper (right) spoon feeding technique.

REMEMBER

- *It's ok if a child starts reaching for the spoon. Let him try to guide the spoon to his mouth.*
- *It's ok if a child gets messy during a mealtime! Clean up the mess afterward.*

KEY ELEMENTS OF SPOON FEEDING

KEY ELEMENTS	SIGNS OF SUCCESSFUL SPOON FEEDING
Appropriate Position (matches child's needs)	○ Safe, supportive and follows key elements of positioning including being fed in a seated, upright position ○ Child and caregiver are comfortable ○ Child is engaged and interested (awake, reaching for spoon, opening mouth for spoon, etc.) ○ Child is calm for feeding (not fussy)
Appropriate Spoon (matches child's needs)	○ Bowl of spoon fits comfortably and easily in child's mouth ○ Child comfortably and easily removes food from bowl – large amounts of food aren't left on spoon after bites ○ Child is not overly sensitive to spoon material and is not flinching, gagging, pulling away, etc. ○ Handle and weight of spoon are comfortable for caregiver and allow child to hold, scoop, lift and bring toward mouth when she begins feeding herself
Appropriate Pacing	○ Caregiver offers child ample time to take bites off of spoon before removing from her mouth ○ Caregiver offers child ample time to swallow bites before introducing another ○ Feeding takes 30 minutes or less
Appropriate Foods	○ Child is offered foods thinned with liquids when first learning to eat from a spoon ○ Child is gradually offered different food textures as she becomes more skilled eating from a spoon ○ Child is offered foods that stick to a spoon as she begins practicing feeding herself
Appropriate Bite Sizes	○ Child is offered small bites when she first begins eating from a spoon (1/2 teaspoon per bite) ○ Child is gradually offered larger bites as she becomes more skilled eating from a spoon

SPOON FEEDING TIPS FOR EVERY CHILD

TIP 1:	Not every child will do well with the same spoon. Consider children's individual needs. Finding the best spoon can sometimes take a lot of work. Even a child who is typically developing, may need to try several spoons until they find the one that works just right. Take your time, observe how a child does and make small changes as needed.
TIP 2:	Always consider a child's developmental skill level when choosing a spoon. Do not only consider a child's age when thinking about introducing spoons. Children need to be able to sit upright and have good head and neck control.
TIP 3:	Eating from a spoon takes time and practice. Learning to eat food from a spoon is a process, whether a child has special needs or not. The only way to learn is through lots of daily, frequent (and often messy) practice.
TIP 4:	Good positioning is key. Finding a safe and comfortable position for a child who is spoon feeding is critical. A stable position will also make self-feeding much easier.
TIP 5:	Start small and slow. Keep bite sizes on the small side, and use a slower rate of feeding during meals – especially when first introducing spoons to a child. The slower the rate and the smaller the bites, the easier and safer it will be for a child to eat and swallow. Remember, when a child first learns to eat from a spoon, bottle or breastfeeding will continue to be their primary source of nutrition.
TIP 6:	Children learn best in the context of positive relationships. Offering positive interactions with a child while spoon feeding is the best way to support this new learning process.
TIP 7:	Messy is OK. Spoon feeding can be messy. But getting messy is healthy because it teaches children how foods feel, widens their interests in trying foods and prepares them for feeding themselves.

FINAL THOUGHTS

Spoon feeding is a child's first opportunity to explore solid foods. Eating is a rich sensory experience, and the first tastes, smells and touches of foods can be fun and thrilling for a child. Knowing when a child is ready to try spoon feeding and finding a spoon that is a good match are essential to making mealtimes successful and enjoyable. Remember, when met with spoon feeding challenges, seek out the support of others. Often, sharing past experiences, challenges and questions with other caregivers and team members can lead to greater problem-solving and creative solutions, alleviating any caregiver and child distress.

For more information on spoon feeding readiness, introducing spoons, and encouraging spoon feeding, refer to Chapters 2 and 3 and Appendices 9H and 9L-3.

SECTION 1.7: CUP DRINKING BASICS

WHAT IS CUP DRINKING?

Cup drinking is usually the next feeding step that children experience during their first year of life after the introduction of the spoon. Most children can be introduced to a cup between 6-9 months old. This starting age is important because it's when a child is learning to crawl. This activity builds trunk (body), shoulder and neck strength that also supports the jaw for drinking from a cup. By this age, children have had practice eating from a spoon, which is excellent preparation for cup drinking. It's also a great example of how all parts of the body and development are connected.

WHAT IS THE IMPORTANCE OF CUP DRINKING?

Cup drinking is important because:

① It is critical in a child's development of oral motor skills.
② It assists with development of skills for chewing and using hands and fingers for self-feeding.
③ It is a fun, new experience and way for children and caregivers to interact.

BENEFITS OF CUP DRINKING	DESCRIPTIONS (WHAT THIS LOOKS LIKE)
Oral Motor Skills 	○ Teaches children how to stabilize (steady) the lips and jaw for supporting a cup ○ Shows children how to pull back the tongue for liquids ○ Teaches children how to open the mouth for different amounts of liquids ○ Shows children how to control faster flowing liquids using the lips, cheeks, tongue and jaw
Sensory Development	○ Offers children practice managing different sip sizes ○ Provides children the chance to try different liquid flavors, temperatures and thicknesses
Relationships and Language 	○ Offers children the chance to engage in meaningful interactions with caregivers ○ Prepares children for social routines for mealtimes such as: hand washing, sitting to eat or drink, taking turns, using language and following directions

TYPICAL CUP DRINKING TIMELINE: DEVELOPMENTAL STEPS FOR CUP DRINKING[9]

There is a typical time frame (age range) for when a child learns to drink from a cup. However, it is imperative for caregivers to consider the child's age, and his developmental skill level when deciding when to introduce cups. Although a child may be a certain age, it is more important that he has the necessary skills in order to become successful drinking from a cup.

Introducing cups is a process that takes practice and time. On average, children will master (open) cup drinking by around 3-4 years old. This means that they will need extra support from caregivers for quite some time. Be patient.

Below are the typical developmental skills that support the process of learning to drink from a cup and the developmental age at which they are often seen:

DEVELOPMENTAL AGE	DEVELOPMENTAL SKILL
6 Months	Child can take sips from a cup when held by a caregiver
12 Months	Child can hold cup and take sips with some spilling
20-22 Months	Child can hold small cup in one hand while drinking
30 Months	Child can pour liquid from a container

A young boy drinks from an open cup all by himself.

TYPES OF CUPS[9]

There are many different types of cups, including various shapes, sizes, styles and materials. The type of cup must match a child's mouth, oral motor skills and developmental and physical needs. It's helpful to understand the differences in order to make the best choice for every child. Ultimately, a child will let caregivers know which cup they prefer and works best.

CUP TYPES: OPEN, SIPPY, STRAW

Cups come in a variety of types including: open cups, sippy cups and cups with straws.

Open cups do not have a lid. They offer the greatest oral motor learning experience for a child. They require a child to use every part of their mouth, which in turn makes their mouth muscles grow stronger.

Sippy cups have a lid with a spout that keeps liquids from spilling. They offer convenience, as they can be moved around easily and create less of a mess. However, sippy cups do not offer the same skill development as open cups.

Straw cups have a straw and they can vary when it comes to having a lid. They are a good option for encouraging oral motor development and when combined with a lid, they can be very handy.

When choosing the type of cup, it's best to offer a variety of options for a child to practice with over time.

From Left: Handle Cup, Smooth Cup, Nosey "cut-out" Cup

CUP SHAPES: HANDLES, SMOOTH, CUT-OUT

Cups come in many different shapes. Cups can be smooth without handles, they can have one or two handles or they can have cut-outs that make drinking easier and safer for certain children.

Smooth cups without handles are very common and easy to find. They work well for children who have typical fine motor/hand skills.

Cups with handles are helpful for children who may need something to grip when drinking from a cup.

Cut-out cups work well for children who need to keep their heads and chins forward and down instead of tilting up and back to drink. They are helpful for caregivers who assist children with drinking. They allow you to see the liquid pour out, which helps control the sip size and rate of drinking for a child.

When choosing a cup, the shape must fit the size and shape of the child's hands and match their physical needs.

CUP SIZES: BIG AND SMALL

Cups come in a variety of sizes. Choosing a cup size depends on if the child is independently drinking or if they are being fed liquids by a caregiver.

Smaller, child-sized cups can become tiring for caregivers to use, while larger cups can make holding, lifting and aiming for the mouth more challenging for children drinking on their own.

Select a cup size that suits the primary feeder best.

CUP MATERIALS: GLASS, CERAMIC, PLASTIC, PAPER; HEAVY AND LIGHT

Cups are made of many different materials such as: glass, ceramics or plastic. Children will often have a preference or need for a specific material.

Glass and ceramic cups are more durable, but for children who have sensitive mouths, the cold and harder textures can be off-putting. These types of cups are heavier and harder to hold, they can damage a child's gums or teeth and be dangerous for children with strong bite reflexes.

Plastic and paper cups can be more comfortable for children and lighter and easier to hold, but they are not as durable and provide less stability for new cup drinkers who need to bite the lip of a cup for added support.

Caregivers must choose a cup that is safe, allows for easy self-feeding, and fits the child's unique sensory and physical needs.

A young girl takes a sip from an open, plastic cup.

WHEN TO CLEAN AND REPLACE CUPS

Before using new cups, always wash them in hot, soapy water or in a dishwasher. Cups should also always be washed after every single feeding. Cups should be regularly checked for wear and tear. Always replace any cups that show signs of excessive wear or that may be harmful to a child.

Avoid using glass or metal cups with young children first learning to use cups. These cups can damage teeth and gums, break in a child's mouth causing injuries and heighten a child's sensitivities making drinking a negative experience. Offer a softer, safer type of cup made of plastic.

GENERAL INSTRUCTIONS FOR CUP DRINKING[19]

① ***Step 1:*** Introduce cups when a child shows they are physically ready (sitting up and holding head and neck upright) of an appropriate age, and they are showing interest in cup drinking).

② ***Step 2:*** Offer small tastes of familiar soft foods or thickened liquids off of the lip of a cup if cup drinking is challenging or upsetting to a child. Small amounts are less overwhelming.

③ ***Step 3:*** Hold the cup far enough away from the child's face so he can see the cup and contents. Let him see the cup and wait for him to open his mouth to show he is ready.

④ ***Step 4:*** Place the cup on the child's bottom lip, tilt slightly and pour small sips at a time into his mouth.

⑤ ***Step 5:*** Let the child try to remove the liquid from the cup using his lips, jaw and tongue.

- *If a child is not interested or is distracted, do not force or sneak the cup into his mouth. This can lead to refusals.*
- *Do not pour liquids directly onto the tongue of a child's open mouth. This is not how we drink.*
- *Do not tip a cup too high or pour too quickly. This will make more liquids pour out too fast for a child to manage.*
- *Do not scrape liquids off of a child's lips or face. This can lead to refusals because it doesn't feel good.*

Remember: It's OK if a child starts reaching for the cup. Let him try to guide the cup to his mouth.

It's OK if a child gets messy during a mealtime. This is all part of the process to help them learn.

A little girl learns how to drink from a special "nosey" cut-out cup.

KEY ELEMENTS OF CUP DRINKING (AGES 6-9+ MONTHS)

KEY ELEMENTS	SIGNS OF SUCCESSFUL CUP DRINKING
Appropriate Position (matches child's needs)	○ Safe, supportive and follows key elements of positioning including being fed in a seated, upright position ○ Child and caregiver are comfortable ○ Child is engaged and interested (awake, reaching for cup, opening mouth for cup, etc.) ○ Child is calm for feeding (not fussy)
Appropriate Cup (matches child's needs)	○ Lip of cup fits comfortably and easily in child's mouth ○ Child comfortably and easily swallows liquids from cup – large amounts of liquid aren't spilled ○ Child is not overly sensitive to cup material and is not flinching, gagging, pulling away, excessive biting, etc. ○ Shape, size and weight of cup are comfortable for caregiver and allow child to hold, lift and bring toward mouth when self-feeding
Appropriate Pacing	○ Caregiver offers child ample time to take single sips from cup before removing from her mouth ○ Caregiver offers child ample time to swallow sips before introducing another ○ Caregiver offers child one sip at a time from a cup ○ Feeding takes 30 minutes or less
Appropriate Liquids	○ Child is offered thicker (slower flowing) liquids when first learning to drink from a cup such as yogurt drinks or milk (if appropriate) ○ Child is gradually offered thin liquids as she becomes more skilled drinking from a cup ○ Child is offered thicker (slower) liquids as she begins practicing drinking independently ○ Child is offered thickened (slower) liquids if she shows signs of difficulty with thin (faster) liquids such as: coughing or choking.
Appropriate Sip Sizes	○ Child is offered small, single sips when she first begins drinking from a cup ○ Child is gradually offered larger sips as she becomes more skilled drinking from a cup

CUP DRINKING TIPS FOR EVERY CHILD

TIP 1:	Not every child will do well with the same cup. Consider children's individual needs and abilities. Finding the best cup can sometimes take a lot of work. Even a child who is typically developing, may need to try several cups until they find the one that works just right. Take your time, observe how a child does and make small changes as needed.
TIP 2:	Always consider a child's developmental skill level when choosing a cup. Do not only consider their age when thinking about introducing cups. Children need to be able to sit upright and have good head and neck control.
TIP 3:	Drinking from a cup takes time and practice. Learning to drink from a cup is a process, whether a child has special needs or not. The only way to learn is through lots of daily, frequent practice.
TIP 4:	Good positioning is key. Finding a safe and comfortable position for a child who is cup drinking is critical. A stable position will make independent drinking that much easier, too.
TIP 5:	Start small and slow. Keep sip sizes on the small side, and start with a slower rate of sips – especially with new drinkers. The slower the rate and the smaller the sips, the easier and safer it will be for a child to manage and swallow. Remember, when a child first learns to drink from a cup, bottle or breastfeeding continue to be their primary routes of liquid nutrition.
TIP 6:	Children learn best in the context of positive relationships. Offering positive interactions with a child while cup drinking is the best way to support this new learning process.
TIP 7:	Messy is OK. Cup drinking can be messy. But getting messy is healthy because it teaches children how liquids feel, widens their interests in trying more to drink and it prepares them for drinking independently.

FINAL THOUGHTS

Cup drinking is an exciting experience for a child, but sometimes it can be challenging. Knowing when a child is ready to try cup drinking and finding a cup that is a good match are essential to making mealtimes successful and enjoyable. When met with cup drinking challenges, seek out the support of others. Often, sharing past experiences, challenges and questions with other caregivers and team members can lead to greater problem-solving and creative solutions and alleviate caregiver and child distress.

For more information on cup drinking readiness, introduction of cups, and encouraging cup drinking, refer to Chapters 2 and 3.

SECTION 1.8: SELF-FEEDING BASICS

WHAT IS SELF-FEEDING?

Self-feeding is when children feed themselves using their own fingers, utensils and cups. It is the process of setting up, arranging and bringing food and liquid from a plate, bowl or cup to their mouth. Self-feeding using the fingers typically begins around 6-7 months old when children start eating solid foods and show a growing interest in trying foods using their hands. By 12-14 months old, children take on more of an active role using spoons and cups on their own to feed themselves. Regardless of the method for self-feeding, when offered these experiences at the right time in life, children can learn these vital lifelong skills.

WHAT IS THE IMPORTANCE OF SELF-FEEDING?

Learning to self-feed is an exciting and motivating time in a child's life. It's also an important skill that positively impacts many aspects of a child's development.

Self-feeding is important because:

① Children experience new sensations including different textures and temperatures.
② It helps develop important skills such as using the fingers and hands for complex movements.
③ It builds feelings of independence and confidence for children.
④ It helps children understand their own feelings of hunger and fullness.
⑤ It is a fun and rewarding experience for children and caregivers.

BENEFITS OF SELF-FEEDING	DESCRIPTIONS (WHAT THIS LOOKS LIKE)
Fine Motor Skills 	○ Teaches children how to use their fingers and hands for grasping and releasing foods, utensils and cups ○ Teaches children how to pick up and hold various sized foods and objects ○ Helps children learn how to bring foods, utensils and cups to the mouth
Sensory Development 	○ Provides the chance to experience and explore different food textures, temperatures and thicknesses ○ Prepares children for becoming more comfortable trying new foods after touching them first

Relationships and Language	○ Offers the chance to engage in meaningful interactions with caregivers ○ Prepares children for social routines for mealtimes such as: hand washing, sitting to eat, serving themselves and others, pouring and scooping, using language and following directions
Independence and Confidence	○ Offers children the chance to do tasks on their own which helps brain development ○ Offers a fun and rewarding experience for children that helps them feel good and enjoy mealtimes
Learning About Self	○ Allows children the chance to listen to their bodies and recognize when they are hungry and full ○ Teaches children concepts such as how to take small bites and sips, slow down when eating and drinking, chew food well, etc.

A group of young children happily feed themselves their afternoon lunch.

***Remember:** self-feeding does not make more work. When children learn to feed themselves, it actually leads to less intensive work for caregivers.*

TYPICAL SELF-FEEDING TIMELINE: DEVELOPMENTAL STEPS FOR SELF-FEEDING[9]

Starting around 6-7 months old is the typical timeframe (age range) when a child learns to feed herself using hands, utensils and cups. However, it is still imperative for caregivers to consider not only the child's age, but also her developmental skill level when deciding when to encourage self-feeding.

Although a child may be a certain age, it is more important that she has the necessary skills to become a successful self-feeder.

Below are the typical developmental skills that support the process of learning to eat using hands, utensils and cups and the developmental age at which they are often seen.

DEVELOPMENTAL AGE	DEVELOPMENTAL SKILL
2-3 Months	Child can bring hands to mouth when on tummy and back
3-4 Months	Child recognizes breast and/or bottle
4 Months	Child can bring hands to mouth when holding objects
5 Months	Child can independently hold bottle with one or both hands
5-6 Months	Child can mouth solid foods such as baby cookie/cracker/biscuit, etc.
6-7 Months	Child can feed self cookies/crackers/biscuits and drink from a cup held by caregiver
9 Months	Child can independently feed self using fingers and hold a spoon
12 Months	Child can hold and drink from cup with minimal spilling
12-14 Months	Child can bring loaded spoon to mouth
15-18 Months	Child can scoop food with spoon and bring to mouth
20-22 Months	Child can drink from a cup while holding it in one hand
24 Months	Child can bring spoon to mouth with a more mature grasp (palm up)
30 Months	Child can pour liquids from one container to another
31-32 Months	Child can independently feed self with minimal spilling
30-36 Months	Child can stab or pick up food using a fork

Offering a child many opportunities each day to explore a variety of foods, cups and utensils will speed along the process of learning how to feed themselves.

TYPES OF SELF-FEEDING

There are many ways a child learns to feed themselves. Initially, they learn how to use their fingers and hands for eating. Soon after, they begin learning the process of feeding themselves using various utensils and cups. As a caregiver supporting self-feeding skills of children, it is critical to offer every child many opportunities to practice these skills and during appropriate windows of time.

FINGER FEEDING

Finger feeding is the first way a child learns to feed himself. Children grasp and pick up foods with their hands and bring them to their mouths to eat and enjoy. It's a very rewarding activity! Finger feeding also allows children the opportunity to explore foods and get familiar with different sensations on their hands. This is a very important part of learning to eat. Children are much more likely to eat a food that they are able to first touch. Therefore, encouraging finger feeding; however messy it may be, is a critical part of learning to eat.

Finger feeding should be introduced around 6-7 months and when a child is showing the necessary skills to be successful and safe such as:

① Showing good head and neck strength.
② Sitting upright with little to no support.
③ Showing interest in foods.
④ Reaching and grasping for items.

UTENSILS, BOWLS AND PLATES:

There are many different types of utensils of various shapes, sizes, styles and materials. There are also many ways utensils can be adapted to fit the special needs of a child. Whatever the type of utensil chosen, it must match a child's mouth and her developmental and physical needs. Also, remember that learning to use these items will take time, so caregivers will need to provide a child with lots of support and frequent opportunities.

Spoons are often the first utensil for a child to use, as they are easiest to scoop food onto and move to the mouth. For young children who do not have good control of their hands and arms, spoons can be the best tool to teach self-feeding.

A little girl proudly holds her spoon as she feeds herself successfully with it for the very first time.

Bowls and plates come in a variety of types. Bowls and plates that stick to tables (suction cups on bottom) can be helpful for children who have a hard time holding one in place for scooping.

Placemats that stick to a surface can also be helpful for keeping bowls and plates in place on tables and floors.

Other common feeding items:

Forks and chopsticks can be offered to children for self-feeding; however, these utensils are often more difficult to use, especially for children with motor challenges.

Sporks are utensils that look like a spoon and a fork. This can be a great "in-between" tool for a child who is able to use a spoon and ready to learn how to use a fork.

Self-feeding using utensils, bowls and plates should be introduced around 8-9 months and when a child is showing the necessary skills to be successful and safe such as:

- Showing good head and neck strength.
- Sitting upright with little to no support.
- Showing interest in utensils, bowls and plates.
- Reaching and grasping for items.

Little boys eat a special yogurt by drinking it from their bowls.

CUPS:

There are many different types of cups, including various shapes, sizes, styles and materials. As with utensils, the type of cup must match a child's mouth, oral motor skills, developmental and physical needs.

Cups with lids and spouts can be helpful "first cups." However, open cups without lids offer the greatest benefits, and children often feel very motivated and proud to use them.

Self-feeding using cups should be introduced around 6-9 months and when a child is showing the necessary skills to be successful and safe such as:

- Showing good head and neck strength.
- Sitting upright with little to no support.
- Showing interest in cups.
- Reaching and grasping for items.

A child drinks from a special "nosey" cut-out cup, which makes learning to drink easier for her.

For more information on different cups and spoons, refer to Chapter 1, Section 7

Children feed themselves food using special maroon spoons.

A little girl takes a break from feeding herself a meal.

Young children drink from plastic sippy cups with the tops removed.

WHY DON'T SOME CHILDREN FEED THEMSELVES?

① *Physical:* A child's body and their capacity to use it appropriately and efficiently for feeding themselves.

② *Emotional:* A child's personal experiences that shape or motivate their interest in feeding themselves.

③ *Environmental:* A child's environment and how it helps or hinders opportunities for learning to self-feed.

REASONS	EXAMPLES
Physical	○ Unable to sit on own with stability to eat, drink and feed self ○ Unable to physically bring cup or food to mouth ○ Sensory avoiding issues such as a dislike of touching foods for feeding self or a need to smell foods when brought to mouth. ○ Mouth pain, problems with mouth/teeth or any part of the swallowing mechanism ○ Medical conditions that make learning to self-feed hard such as CP, Down syndrome, ASD, FASD, brain injury, etc. ○ Frequent choking when eating, drinking or being fed by another person which makes feedings scary
Emotional	○ Not being adequately fed when hungry and unable to recognize on own when in need of food or drink ○ Being force fed by caregivers leading to eating refusals, including self-feeding ○ Unpleasant mealtime experiences leading to eating refusals, including self-feeding refusals ○ Unfamiliar with mealtime experiences (how to use utensils, cups, foods, liquids, task of self-feeding)
Environmental	○ Not offered opportunities to try to feed self (finger feeding or using cups, bowls and utensils) ○ No access to appropriate utensils and cups for self-feeding ○ Limited time at meals to allow children opportunities to self-feed ○ Limited caregivers (staffing issues) that prevent children from having opportunities to feed selves

KEY ELEMENTS OF SELF-FEEDING

KEY ELEMENTS	SIGNS OF SUCCESSFUL SELF-FEEDING
Appropriate Position (matches child's needs)	○ Safe, supportive and follows key elements of positioning including being fed in a seated, upright position with whole body support ○ Child and caregiver are comfortable ○ Child is engaged and interested (awake, reaching for cup or spoon, opening mouth for food or liquid, etc.) ○ Child is calm for feeding, not fussy
Appropriate Utensil and Cup (matches child's needs)	○ Finger foods appropriately match child's fine motor skills ○ Utensils, bowls and cups match child's size, skills and physical needs ○ Child comfortably and easily removes food or liquids using hands, utensils, bowls and cups ○ Child is not overly sensitive to feeding materials and is not flinching, gagging, pulling away, etc. ○ Handle and weight of utensil/bowl/cup allows child to hold, scoop, lift and bring toward mouth when she feeds herself
Appropriate Opportunity	○ Child has ample time and opportunity to explore foods, utensils, bowls and cups ○ Child has ample time and opportunity to feed self ○ Feeding takes 30 minutes or less
Appropriate Foods and Liquids	○ Child is offered appropriate foods that support easy finger feeding, spoon feeding and cup drinking ○ Child is gradually offered different foods and liquids as she becomes more skilled at feeding herself
Appropriate Models and Support	○ Caregivers eat and drink alongside child to show her how to use her hands, utensils, bowls and cups ○ Child eats and drinks alongside peers to show her how to use her hands, utensils, bowls and cups ○ Caregivers offer appropriate support for self-feeding during meals as needed by the child

SELF-FEEDING TIPS FOR EVERY CHILD

TIP 1:	Always consider a child's individual needs and development level when introducing self-feeding. Not every child will be interested or start trying to feed themselves at the same time.
TIP 2:	Feeding yourself takes time and practice. Learning to feed yourself is a process, whether a child has special needs or not. The only way to learn is through lots of daily, frequent practice and thoughtful support from caregivers.
TIP 3:	Finding the best method can sometimes take a lot of work. Even a child who is typically developing, may need to try several spoons, cups, positions or food sizes until they find what works just right. Take your time, observe how a child does and make small changes as needed.
TIP 4:	Good positioning is key. Finding a safe and comfortable position for a child who is learning to feed themselves is critical. A stable position will make self-feeding much easier and more successful.
TIP 5:	Start small and slow. Try offering a child the chance to feed themselves for a small portion of a meal, and then help them with the rest. Make it a team effort. Take turns feeding the child (you offer a bite and then the child takes a turn). Slow but steady practice is a nice way to introduce this new experience.
TIP 6:	Children learn best in the context of positive relationships. Offering positive interactions with a child while they learn to feed themselves is the best way to support this new learning process.
TIP 7:	Messy is OK. Learning to feed yourself can be messy. However, getting messy is healthy because it teaches children how foods feel, widens their interests in trying foods/liquids and gives them the practice they need to become better self-feeders.
TIP 8:	All children deserve the chance to learn this important life skill. Learning to feed yourself is an important skill that can make a big difference for a child. Children with and without disabilities should be given the opportunity to participate in this powerful activity.

FINAL THOUGHTS

Learning how to self-feed is a challenging, but incredibly rewarding experience for a child. When caregivers offer children the opportunity to grow these skills, children learn more than just how to eat and drink. They develop a valuable skill for life. Use this manual as a helpful resource. Remember: When met with challenges, seek out the support of others. Often, sharing past experiences, challenges and questions with other caregivers and team members can lead to greater problem-solving and creative solutions and alleviate caregiver and child distress.

For more information on encouraging self-feeding, refer to Chapters 2, 3 and 4.

For more information on creative ways to help children with self-feeding, refer to Chapter 9I.

SECTION 1.9: FOOD TEXTURE AND LIQUID CONSISTENCY BASICS

WHAT ARE COMMON FOOD TEXTURES AND LIQUID CONSISTENCIES?

Foods and liquids come in a variety of different textures and consistencies. As young babies, we are given only liquids. As we grow and develop our feeding skills, we experience different solid food textures such as blended cereals, vegetables, mashed fruits and soft table foods. Finally, as our skills fully mature, we can eat all types of foods, including tougher meats and breads. For children who may experience challenges with eating and drinking, finding the right food texture and liquid consistency that is easiest and safest can be hard. Because of this, it's helpful for caregivers to understand different textures and consistencies and which may be best suited for a child based on his skills and needs.

TYPES OF TEXTURES AND CONSISTENCIES[20]

There are many different types of food textures and liquid consistencies. Foods and liquids are either naturally these textures and consistencies or they can be altered to become a more well-suited texture or consistency for a particular child. Food and liquid can be altered by using tools such as utensils, blenders or thickening agents.

SOLID FOOD TEXTURES	DESCRIPTION	EXAMPLE FOODS
Pureed/Extremely Thick	○ Usually eaten with a utensil ○ Cannot drink from a cup or straw ○ Does not require chewing ○ Smooth, no lumps ○ Does not pour ○ Falls off spoon in single spoonful and holds shape on plate/tray/table	Blended vegetables, fruits and meats, thick cereals
Minced and Moist	○ Can eat with utensil, chopsticks or sometimes hands ○ Can be shaped and scooped on plate/tray/table ○ Small lumps visible ○ Lumps are easy to squish with tongue ○ Moist and soft ○ Minimal chewing is required ○ Does not require biting	Finely minced meats, finely minced or mashed fruits, vegetables and fish, thick cereals with small lumps

Soft and Bite Sized	○ Can eat with utensil, chopsticks or hands ○ Soft, tender and moist bite-sized pieces ○ Can be cut without a knife ○ Can be mashed or broken down with utensil ○ Chewing is required ○ Does not require biting	Cooked-tender meats, flaky fish, mashed fruits, steamed or boiled vegetables, soft cheese and eggs, soaked breads that are "moist" to touch
Regular	○ Normal, everyday foods of varying textures (soft, hard, crunchy, fibrous, chewy, dry, stringy, crispy, crumbly, etc.) ○ Includes mixed or dual consistencies (foods + liquids → soups and stews) ○ Age-appropriate ○ Developmentally appropriate based on skill-level of child ○ Chewing and biting may be required based on food texture	All meats, vegetables, fruits, cheese, eggs, breads

LIQUID CONSISTENCIES	DESCRIPTION	EXAMPLE LIQUIDS
Thin	○ Fastest flowing liquid ○ Flows like water ○ Can drink from any nipple, cup, syringe or straw	Water
Slightly Thick	○ Slightly slower flowing than water ○ Slightly thicker than water ○ Can drink from any nipple, cup, syringe or straw	Breastmilk, formula
Mildly Thick	○ Slower flowing than slightly thick liquids ○ Thicker than slightly thick liquids ○ Flows off of spoon quickly, but slower than thin liquids ○ Can drink from spoons, most open cups and some closed cups and straws ○ More effort required to drink from straw	Fruit nectars
Moderately Thick	○ Slower flowing than mildly thick liquids ○ Thicker than mildly thick liquids ○ Flows off of spoon slowly in dollops ○ Can drink from spoons and open cups ○ Smooth texture without lumps ○ No chewing or processing required	Runny pureed fruits and rice cereals, sauces, gravies, honey

Extremely Thick/Pureed	○ Slowest flowing liquid ○ Thickest liquid ○ Usually eaten with a utensil ○ Cannot drink from cup or straw ○ Does not require chewing ○ Smooth, no lumps ○ Does not pour ○ Falls off spoon in single spoonful and holds shape on plate/tray/table	Blended vegetables, fruits and meats, thick cereals

TRANSITIONAL FOODS	DESCRIPTION	EXAMPLE FOODS
△ Texture Changing	○ Foods that change texture (transition) when eating ○ Change due to added moisture (saliva), temperature or pressure ○ Minimal chewing needed and do not require biting ○ Good for teaching new skills such as chewing	Ice chips, ice cream/sherbet, wafers, waffle cones, some biscuits/cookies/crackers, mashed potato crisps, etc.

WHY MIGHT A CHILD NEED A DIFFERENT TEXTURE OR CONSISTENCY?

There are many reasons why a child may need to be offered a certain food texture or liquid consistency. As caregivers, sometimes we know these reasons and sometimes we unfortunately do not. However, as caregivers, we can discover potential reasons and signs by learning about a child, and noticing how they are doing before, during, after and in-between feedings.

Common reasons a child might need a different food texture or liquid consistency:

- Medical conditions involving reflux, the lungs or heart
- Children born early (prematurity)
- Children born exposed to substances (drugs and/or alcohol)
- Structural differences such as cleft lip or palate
- Neuromuscular disorders such as cerebral palsy
- Developmental disabilities such as Down syndrome
- Social-emotional or environmental factors (limited experience, no caregiver, stressful experiences)

A boy is served a tray full of many different food textures.

COMMON SIGNS A CHILD MIGHT NEED A DIFFERENT FOOD TEXTURE OR LIQUID CONSISTENCY:

- Coughing
- Congestion
- Noisy or "wet" sounding voice or breathing
- Upper respiratory infections
- Difficulty breathing while eating
- Crying or unhappy at meal times
- Oral aversions or "refusals" to eat or drink
- Choking on food or liquid
- Unusually long meal times (more than 30-40 minutes per meal)
- Difficulty chewing
- Avoiding certain food textures or liquid consistencies
- Vomiting
- Concerns with weight and nutrition

LEFT: Children with Down syndrome sometimes need different textures or consistencies due to low muscle tone in the mouth and throat.

RIGHT: Children with cerebral palsy sometimes need different food textures or liquid consistencies due to tight muscle tone in the body and difficulty controlling muscles for eating and swallowing.

WHAT IS THE IMPORTANCE OF CHOOSING THE RIGHT TEXTURE AND CONSISTENCY?

Choosing the right texture and consistency for a child helps make mealtimes safe and comfortable. Offering a texture and consistency that fits a child's skill level is critical in supporting successful feeding. Additionally, for children with difficulties eating and drinking, modifying food textures and liquid consistencies is a strategy that can be used to increase child safety and well-being. More specifically, certain textures and consistencies can protect a child's airway and make feedings less tiring and stressful. This improves a child's ease with feeding and aids in her overall health and nutrition.

When children can eat and drink safely and comfortably, they tend to eat and drink more. They also grow healthy and strong.

Choosing an appropriate texture and consistency is important because:

① It is a primary step in a child's development of oral motor skills.
② It allows a child to experience new textures and sensations in a safe way.
③ It offers a safer feeding experience for a child.
④ It offers a more comfortable and enjoyable feeding experience for a child.

BENEFITS OF APPROPRIATE TEXTURES AND CONSISTENCIES	DESCRIPTIONS(WHAT THIS LOOKS LIKE)
Oral Motor Skills 	○ Teaches children how to use their mouths in different ways based on the textures and consistencies ○ Teaches children how to eat and drink more challenging foods and liquids
Sensory Development	○ Provides children the chance to try new, different food textures and liquid consistencies ○ Prepares children for a variety of foods and liquids adults eat and drink
Health and Well-being 	○ Creates a safer eating and drinking experience ○ Offers a more comfortable and enjoyable eating and drinking experience ○ Reduces the occurrence of illness, meal refusals, malnourishment, dehydration and death

TYPICAL DEVELOPMENTAL FOOD EXPECTATIONS TIMELINE: SOLID FOOD TEXTURES

There is an important and typical time frame (age range) for when a child learns to eat each food texture. However, it is necessary for caregivers to consider not only the child's age, but also his developmental skill level and overall readiness when deciding when to introduce each texture. Although a child may be a certain age, it is more important that he has the necessary skills and he is safe to transition to a new food texture.

Below are the typical developmental skills that support the process of learning to eat each food texture and the developmental age at which they are often seen.

AGE	DEVELOPMENTAL SKILL	FOOD TEXTURES
0 – 5/6 Months	○ Sucking	○ Liquids via breast and/or bottle
5-6 Months	○ Sucking ○ Tongue thrust lessens ○ Mouth opens for spoon ○ Food moves from front of tongue to back	○ Smooth pureed foods
7-9 Months	○ Up and down munching pattern for chewing develops ○ Tongue thrust lessens even more ○ Movement of tongue from side to side develops	○ Thicker, smooth pureed foods ○ Foods that dissolve with saliva such as teething biscuits, buttery crackers, etc. ○ Soft table foods such as bananas, avocado, well-cooked carrots and squash, etc.
12-14 Months	○ Munching pattern continues to develop ○ More mature chewing (rotary chew) emerges	○ Same as above
14-18 Months	○ Rotary chew continues to develop ○ Lip movement and closure increases	○ Soft meats and mixed textures such as cereal with milk, soup, rice and beans, etc.
18-24+ Months	○ Rotary chew is fully developed ○ Lip closure is adequate for chewing and swallowing ○ Jaw stability improves and allows biting through foods of different thicknesses	○ Meats ○ Raw fruits and vegetables ○ Mixed textures

TYPES OF SOLID FOOD TEXTURES

There are many different types of solid food textures. A child who is developing typically will eventually try all textures as she grows older and as her skills develop. However, for a child who has challenges eating, she may need certain textures (and avoid eating others) to ensure her health and comfort when feeding. Whatever the type of texture offered, it should be age-appropriate and it must match a child's skills and physical needs. So, it's helpful to understand the differences in order to make the best choice for every child. Ultimately, a child will let caregivers know which food textures she is able to manage and when she is ready to try something new.

PUREED

Pureed foods are blended foods that are smooth (no lumps) and not sticky. With the right blender or tools, most foods can be made into purees.

BEST FOR: Most children 6 months and older

ESPECIALLY GOOD FOR:

- new eaters
- younger children 6-9 months old
- children with limited chewing skills
- children with limited tongue movement or control
- children with missing teeth/dental issues
- children who tire easily with munching and chewing
- children who experience pain or discomfort with chewing and/or swallowing

A puree is too thick if it sticks to a utensil or does not fall off of a utensil when tilted.

MINCED AND MOIST

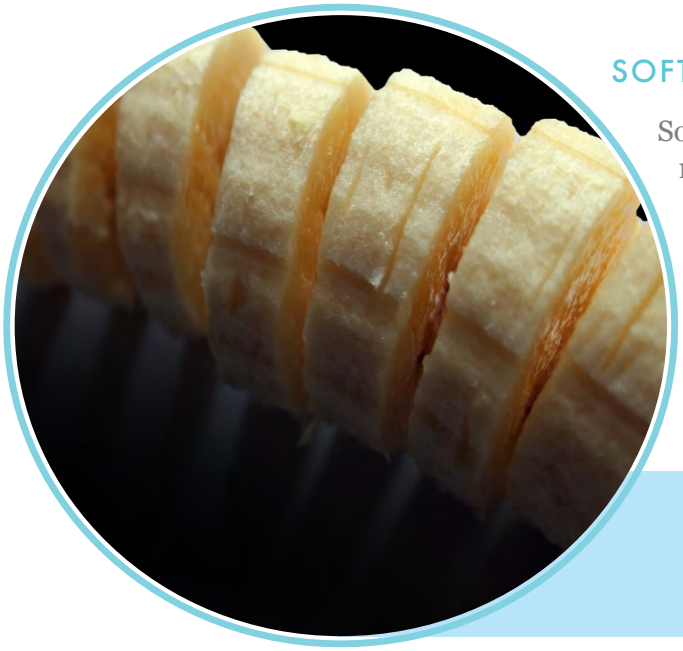
Minced and moist foods are soft, wet and have visible lumps. They can be eaten using the fingers or utensils, and the lumps are easily squished using fingers or utensils. When swallowed, these foods turn into a puree. Many minced and moist foods can easily be mashed with a utensil (for example: avocado, baked sweet potato flesh, banana). Minced meats and fish can be served with thick non-pouring gravies or sauces. Breads must be "soaked" in liquids and not served dry. Cereals should be served very thick, smooth and extra liquids should be drained. Rice should not be sticky, glutinous or grainy.

BEST FOR: Most children 7 months and older

ESPECIALLY GOOD FOR:

- new eaters
- younger children 7-12 months old
- children with some munching skills
- children with some tongue movement or control
- children with missing teeth or dental issues
- children who tire easily with munching and chewing
- children who experience pain or discomfort with chewing or swallowing

If a food cannot be finely minced, it should be pureed.



SOFT AND BITE-SIZED

Soft and bite-sized foods are tender, moist and small in size to make eating safer and easier. They can be eaten using the fingers or utensils, and they can easily be cut through without the use of a knife. Meats should be served tender and no bigger than 8 millimeters (width of fingernail), and fish should be soft and flaky. Breads must be "soaked" in liquids and not served dry. Cereals should be served smooth with soft lumps and extra liquids should be drained. Rice should not be sticky, glutinous or grainy.

If a food cannot be soft and bite-sized, it should be served minced and moist.

BEST FOR: Most children 9 months and older

ESPECIALLY GOOD FOR:

- children with adequate chewing skills
- children with adequate tongue movement and control
- children who tire easily with munching and chewing may still do well with these foods or when given in smaller amounts paired with minced and moist and/or pureed foods
- older children learning how to feed themselves using utensils

Soft and bite-sized foods require that a child is able to chew foods. If a child is not yet chewing but given these foods, they are more likely to choke. Caregivers must always be cautious when trying new foods and be present with children when they are eating.

REGULAR

Regular foods are normal "table foods" that suit a child's age and her skill level. They can be eaten using the fingers or utensils, and they may require biting and chewing.

Regular food textures can be: smooth, lumpy, sticky, crispy, crumbly, crunchy, hard, tough, fibrous and chewy. Breads may be served dry and rice can be sticky, glutinous or grainy.

BEST FOR: Most children between 18-24 months and older

Because regular foods require more oral motor skills, they also require a child have good endurance to last the length of the meal and not tire easily.

ESPECIALLY GOOD FOR:

- children with adequate chewing skills
- children with adequate tongue movement and control
- children who do not tire easily with chewing
- older children learning how to feed themselves using utensils

TYPES OF LIQUID CONSISTENCIES

There are several different liquid consistencies. Most children who are developing typically will only need thin liquids. However, for a child who has challenges with swallowing, he may need certain liquid consistencies (and avoid others) to ensure his health and comfort when feeding. Whatever the type of consistency offered, it should be age-appropriate and it must match a child's skills and physical needs. So, it's helpful to understand the differences in order to make the best choice for every child. Ultimately, a child will let caregivers know which consistency he is able to manage and when he is ready to try something new.

THIN

Thin liquids are the fastest flowing liquids. They flow the fastest because they are the least dense. Thin liquids can be taken from any nipple, teat, cup, syringe or straw.

BEST FOR: Most children 0 months and older

ESPECIALLY GOOD FOR:

- children with adequate swallowing skills
- children with adequate oral motor skills
- children with healthy bodies free from respiratory illness and fevers

SLIGHTLY THICK

Slightly thick liquids flow a little slower than water because they are more dense. They are similar in thickness to commercial baby formulas. They can be taken from a nipple, cup, syringe or straw. Slightly thick liquids can be helpful for babies who frequently spit up.

BEST FOR: Most children 0 months and older

ESPECIALLY GOOD FOR:

- children with adequate swallowing skills
- children with adequate oral-motor skills
- children with gastroesophageal reflux disease (GER, GERD) or reflux

Slightly thick liquids can be helpful for babies who frequently spit up.

MILDLY THICK

Mildly thick liquids flow quickly off of a spoon, however, more slowly than thin and slightly thick liquids. They can be taken from spoons, some nipples and straws, most cups and syringes. Some liquids are naturally mildly thick such as fruit nectars. For liquids that are not naturally mildly thick, thickening agents can be used.

BEST FOR: Most children 0 months and older (*babies younger than 6 months should only be given breast milk or formula.)

ESPECIALLY GOOD FOR:

- children with adequate swallowing skills
- children with adequate oral-motor skills
- children with slightly reduced oral motor skills
- children who have difficulty with thin liquids (impaired swallowing skills)

MODERATELY THICK

Moderately thick liquids flow easily, but slowly off of a spoon. They are smooth without bumps, and can be taken from spoons and some cups. These liquids require no chewing, less effort and they allow a child more time to prepare for a swallow. There are liquids that are naturally moderately thick such as runny pureed foods, certain sauces and gravies. For liquids that are not naturally moderately thick, thickening agents can be used.

BEST FOR: Most children 0 months and older (*babies younger than 6 months should only be given breast milk or formula that is thickened)

ESPECIALLY GOOD FOR:

- children with significantly reduced oral motor skills
- children who have difficulty with thin, slightly and
- children who do best with a slow, controlled liquid

EXTREMELY THICK OR PUREED

Extremely thick liquids are similar to pureed foods. They are blended until smooth (no lumps) and not sticky. With the right blender or tools, most foods and liquids can be made into extremely thick liquids. Extremely thick liquids cannot be taken using a cup or straw – a spoon or sometimes a fork must be used. These liquids require no chewing, less effort and they allow a child more time to swallow. There are items that are naturally extremely thick such as pureed baby foods. For liquids that are not naturally extremely thick, thickening agents can be used.

BEST FOR: Most children 6 months and older

ESPECIALLY GOOD FOR:

- younger children 6-9 months old
- children with limited oral-motor skills
- children with missing teeth or dental issues
- children with frequent respiratory illnesses and fevers
- children who have difficulty with thin, mildly and moderately thick liquids (impaired swallowing)
- children who do best with a slow, controlled liquid
- children who tire easily with munching and chewing
- children who experience pain or discomfort with chewing and/or swallowing

If a child is showing signs such as frequent coughing or choking with moderately thick liquids, this may mean they have a swallowing problem. Try offering extremely thick liquids.

For more information on thickening foods and liquids, refer to Appendices 9C, 9D, and 9E.

For more information on how to advance a child's diet, refer to Appendix 9F.

KEY ELEMENTS OF FOOD TEXTURE AND LIQUID CONSISTENCIES

KEY ELEMENTS	TEXTURE AND CONSISTENCY CONSIDERATIONS
Age-Appropriate	○ Foods and liquids match child's age level ○ Foods and liquids aren't too challenging for age ○ Foods and liquids aren't too easy for age ○ Foods and liquids change as the child grows and develops
Developmentally Appropriate	○ Foods and liquids match child's developmental skill level ○ Foods and liquids match child's physical abilities (positioning, body strength and control, use of hands, etc.) ○ Foods and liquids match child's other abilities (alertness, interest and "readiness" for feeding, visual skills, etc.) ○ Foods and liquids change as child grows and develops
Match Oral-Motor and Swallowing Skills	○ Foods and liquids match child's tongue movement and control skills ○ Foods and liquids match child's lip, cheek and jaw skills ○ Foods and liquids match child's swallowing skills ○ Foods and liquids match child's dentition (teeth, missing teeth)
Efficient	○ Foods and liquids match child's endurance (energy) level ○ Feeding takes 30 minutes or less
Safe and Comfortable	○ Foods and liquids support safe feedings for child ○ Foods and liquids support comfortable feedings for child ○ Foods and liquids support health of the child ○ Foods and liquids support happiness and well-being of the child

FOOD TEXTURE AND LIQUID CONSISTENCY TIPS FOR EVERY CHILD

TIP 1:	Always consider the individual needs of a child when choosing a texture or consistency. Not every child will do well with all foods and liquids at their current ages. Children have many different strengths and special challenges that must be considered.
TIP 2:	Always consider a child's skill level when choosing a texture or consistency. Do not only consider a child's age when thinking about what to offer.
TIP 3:	Finding the best texture or consistency can take a lot of work. Caregivers may need to try a texture/consistency several times or different textures/consistencies until they find what works just right for a child. Take your time, observe how a child responds and make small changes as needed.
TIP 4:	Good positioning is key. Finding a safe and comfortable position for every child is critical. A stable position will always make eating and drinking easier and safer.
TIP 5:	Start small and slow. Offer several "trials" of a new texture or consistency in small amounts when first starting out with a child. Starting slowly lets caregivers learn how a child is managing a texture or consistency. The slower the rate and the smaller the bites/sips, the easier and safer it will be for a child.
TIP 6:	Children learn best in the context of positive relationships. Offering positive interactions with a child during mealtimes is the best way to support this process.
TIP 7:	Messy is okay! Learning to eat and drink new textures and consistencies can be messy. However, getting messy is healthy because it teaches children how foods and liquids feel, and widens their interests in trying different items.

FINAL THOUGHTS

Most children advance through all food textures and drink thin liquids easily without challenges. However, when a child displays trouble eating and swallowing, knowing how to change the foods and liquids offered to make mealtimes safer and easier is beneficial and empowering. The slower the rate and the smaller the bites or sips, the easier and safer it will be for a child.

SECTION 1.10: INTERACTION BASICS

WHAT IS INTERACTION?

Interaction is another way of saying "relationships." In this manual, we use the terms interchangeably. The relationships children have with their caregivers, including the day-to-day moments they share during feedings, are interactions. Positive, intentional interactions are necessary for children to grow healthy and thrive. A child's development will become more robust as he is offered consistent and nurturing interactions with his caregivers.

Enjoyable connections with others that happen often strengthen a child's development.

WHY IS INTERACTION IMPORTANT FOR FEEDING?

Early skills such as feeding must be learned. They are created by the relationships and events that a child experiences with her caregivers[21]. Regulation, or a child's ability to become and stay calm, is essential for development, especially for feeding. For a child to be able to eat well, she must first be calm. Once calm, children are better able to interact with others, eat and feed themselves with greater chance for success. While children are developing, they need extra support from caregivers to become and stay calm. Reliable, safe and positive relationships with caregivers are the first way that a child begins learning how to become calm.

Regulation, or a child's ability to become and stay calm, is essential for development, especially for eating and self-feeding.

KEY ELEMENTS OF INTERACTION: OPTIMAL CAREGIVER QUALITIES[22]

In this section we will explain key elements that make an effective, optimal caregiver. Optimal caregiving is different from custodial caregiving. Custodial caregiving is when a person takes care of the basic standard needs of a child (e.g., provides food, water and may assist with other daily activities such as bathing, diapering and toileting). Optimal caregiving is when a person takes care of a child's daily needs, but they also provide positive, loving interactions. These positive and meaningful interactions boost the quality of life of the child, leading to improved health outcomes. It is essential that caregivers consider these elements when supporting all children, and that they learn how to provide optimal care.

Being attuned means: Being highly aware of a child's needs.

PRESENT, ATTENTIVE, RESPONSIVE AND ATTUNED CAREGIVING

	OPTIMAL CAREGIVER QUALITIES
Present	Be fully present during interactions with a child – physically and mentally. Caregivers pay close attention to what is happening in the moment (i.e., not thinking about work that needs to be done) to best understand what a child needs and how to support those needs. *"I see you and you see me."*.
Attentive	Be observant of the physical and emotional needs of a child. Caregivers are attentive to a child's needs to help him feel understood. Children will continue to express their needs and feelings, knowing that their caregivers are intently listening and watching. *"You understand me, and that makes me feel good."*
Responsive	Be consistent and quick to respond to a child's needs. Caregivers respond in a timely manner and children learn to trust that caregivers will keep them safe. When consistent care (i.e., same caregiver, schedule, bottle/cup/spoon, room for feedings, feeding position, etc.) is offered responsively, children develop strong relationships that are essential for life. *"I feel safe with you. You are always here for me."*
Attuned	Be deeply connected to a child and learn her individual wants and needs. Caregivers are attuned to a child's needs in order to respond consistently and respectfully to each child. This creates a feeling of dependability for a child. *"I can count on you because you always take good care of me."*

INTERACTION TIPS FOR EVERY CHILD

TIP 1:	Healthy relationships help development of the brain. Positive interactions between children and caregivers support the growth and development of a child's brain. Strong brains grow from quality time with caregivers.
TIP 2:	Healthy relationships help heal brains. Positive relationships are the primary way caregivers can reduce the impacts of challenges and stresses children experience. Caregivers can offer positive interactions by being present, attentive, responsive and attuned.
TIP 3:	Healthy relationships help children thrive. Children who are nurtured by caregivers through positive interactions are actually healthier and more well nourished (body and mind).
TIP 4:	Optimal caregiving doesn't take extra time. Caregivers can offer positive interactions throughout daily activities and routines that they are already doing by using simple strategies.
TIP 5:	Children learn best in the context of positive relationships. Offering positive interactions with a child during mealtimes (and beyond) is the best way to support the learning process.

FINAL THOUGHTS

Positive relationships are the foundation for raising healthy children. When children receive optimal caregiving from the start, they reap substantial benefits for the rest of their lives. When children do not have anyone to consistently depend on, and when they do not experience positive relationships, their growth and development can be severely stunted. This includes developing smaller less powerful brains and bodies, learning how to connect and relate with others as well as becoming successful adults in our communities. Because of this, caregivers play a vital role in developing not only physically strong children, but emotionally strong children. Every activity and routine throughout the day is an opportunity to positively impact a child's life.

For more information on interaction and specific ways to support interaction during every activity and routine, refer to Chapters 8 and Appendix 9K.

PART 2:
FEEDING ACROSS THE AGES: INFORMATION FOR SUPPORTING FEEDING DEVELOPMENT AND FINDING SOLUTIONS FOR FEEDING CHALLENGES

PART 2 | CHAPTER 2

THE FIRST YEAR OF LIFE: 0-12 MONTHS OLD

"One generation plants the trees; another gets the shade."

Chinese Proverb

SECTION 2.1: IMPORTANT DEVELOPMENTAL MILESTONES FOR FEEDING: 0-12 MONTHS OF AGE

THE IMPORTANCE OF DEVELOPMENTAL MILESTONES

During the first year of life, babies make many advancements in their development. At times, it can feel like a baby is changing every single day. Skills that babies acquire must be viewed holistically. All areas of development are connected and influenced by one another. When caring for babies 0-12 months old who may need extra help with feeding, it is critical to consider all areas of development to know how best to provide support.

For more information about each developmental domain, refer to the Introduction.

EXAMPLE OF A HOLISTIC VIEW OF FEEDING (0-12 MONTHS OLD):

DEVELOPMENTAL AREA	DEVELOPMENTAL MILESTONES (SKILLS)
Adaptive	Baby receives good sleep mixed with periods of being awake and alert.
Motor | Communication | Cognitive	Baby brings her hands to her mouth to indicate she is hungry.
Social-Emotional | Communication | Vision	Baby expresses excitement when she sees the bottle.
Social-Emotional | Communication | Hearing	Baby becomes calm before the feeding when spoken to by her caregiver.
Adaptive| Motor	Baby comfortably and safely sucks from the bottle.

Feeding is a complex process and all areas of development are involved. Even when just one area is not working well, it can create challenges for a baby and her caregivers. Therefore, it is critical to look at babies broadly to understand their full range of capacities and needs.

By understanding these basic milestones of development (also known as skills) and how they work together, caregivers can more easily identify when development is going well and when there may be a problem.

The earlier challenges can be identified, the sooner support can be provided resulting in happier and healthier babies.

Remember: Development is a process and there is a large range of times when babies and children gain skills. The timeframes and skills shared in this manual are provided as a reference guide. We have chosen to include the most prominent skills across each developmental area and how they relate to feeding. Caregivers who work with children of all ages should become familiar with these milestones to best meet the needs of the children they serve.

Two babies enjoy each other's company during floor time play.

COMMON DEVELOPMENTAL SKILLS[23,24,25,26]:

BABIES 0-3 MONTHS OLD:

Adaptive: 	⇒ Moves head toward bottle and/or breast when offered ⇒ Sucks and swallows well when feeding – seldom coughs or chokes and feedings take no more than 30 minutes at a time ⇒ Drinks 60 to 180 ml (2 to 6 fl. oz.) of liquid each feeding around six plus times per day ⇒ Sleeps for two to four hour stretches
Communication: 	⇒ Turns head toward voices and sounds ⇒ Makes different cries for different needs such as hungry, uncomfortable, pain, tired, etc. ⇒ Makes different noises other than crying such as cooing or gurgling ⇒ Shows interest in looking at faces
Fine and Gross Motor: 	⇒ Lifts and holds head up while lying on stomach ⇒ Brings hands to mouth ⇒ Attempts to reach for or grab toys and other objects held above chest ⇒ Stretches and kicks when on back
Cognitive: 	⇒ Notices and explores own hands ⇒ Mouths toys or objects ⇒ Looks back and forth between faces and objects ⇒ Watches faces or objects move slowly in front of face
Social-Emotional: 	⇒ Gazes at others ⇒ Recognizes familiar voices, faces and objects ⇒ Smiles and makes sounds with others ⇒ Becomes calm with touching, rocking, bouncing, patting, gentle sounds or when comforted/spoken to
Vision: 	⇒ Moves eyes to watch objects and faces while lying on back ⇒ Stares at objects or faces if held 20 to 25 cm (8 to 10 inches) away ⇒ Looks at faces of others with great interest ⇒ Looks at hands
Hearing: 	⇒ Responds to voices and sounds in environment ⇒ Reacts to loud sounds by becoming startled or moving body ⇒ Turns head toward voices and sounds ⇒ Vocalizes when spoken to by others

COMMON DEVELOPMENTAL SKILLS[23,24,25,26]:

BABIES 3-6 MONTHS OLD:

Adaptive: 	⇒ Sucks on finger(s) or hands ⇒ Shows interest in solid foods (around 5 to 6 months old) ⇒ Drinks 180 to 240 ml (6 to 8 fl. oz.) of liquid at each feeding, four to six times per day ⇒ Sleep for four to 10 or more hour stretches at night
Communication: 	⇒ Listens and responds when spoken to by others ⇒ Repeats simple sounds and facial expressions ⇒ Begins to babble using a greater variety of sounds ⇒ Expresses pleasure and displeasure using different kinds of sounds
Fine and Gross Motor 	⇒ Rolls from back to stomach and from stomach to back ⇒ Reaches both hands to play with feet while lying on back ⇒ Uses both hands to explore objects and reach ⇒ Sits for at least five seconds with support from a caregiver
Cognitive: 	⇒ Explores objects in a variety of ways ⇒ Repeats movements with arms and legs to cause actions to happen again (cause and effect) ⇒ Follows a disappearing object ⇒ Drops objects on purpose
Social-Emotional: 	⇒ Smiles and laughs and seeks comfort from others ⇒ Calms with rocking, touching, bouncing, patting, and gentle sounds ⇒ Pays attention to their name when it's called
Vision: 	⇒ Reaches for objects and may bat at them with hands ⇒ Recognizes familiar faces and objects such as his bottle ⇒ Turns head to see an object or face ⇒ Picks up an object that is dropped
Hearing: 	⇒ Repeats familiar sounds ⇒ Makes more sounds and uses a wider variety of sounds such as "baba, "mama," etc. ⇒ Uses a greater variety of high, low, soft and loud sounds ⇒ Reacts calmly and without great upset to everyday sounds

COMMON DEVELOPMENTAL SKILLS[23,24,25,26]:

BABIES 6-12 MONTHS OLD:

Adaptive: 	⇒ Takes foods from a spoon and tries to feed self finger foods ⇒ Holds or supports bottle when drinking ⇒ Drinks from an open cup with support ⇒ Cooperates in dressing/undressing activities
Communication: 	⇒ Responds with gestures to certain words (“up,” “bye”) ⇒ Follows simple directions (“Give me ___”) ⇒ Makes several more sounds ⇒ May say one to two words meaningfully
Fine and Gross Motor: 	⇒ Picks up small item using thumb and finger ⇒ Pokes using a finger ⇒ Stands alone while holding onto something for support ⇒ Walks three or more steps with support
Cognitive: 	⇒ Repeats familiar movements such as clapping, waving, banging objects, etc. ⇒ Moves to get objects ⇒ Looks at pictures in books or magazines ⇒ Realizes objects and people exist even when they cannot be seen
Social-Emotional: 	⇒ Reaches for familiar adults ⇒ Shows affection for familiar adults ⇒ Repeats facial expressions, actions and sounds of others ⇒ Shows preferences for certain activities, objects, places and people
Vision: 	⇒ Shows preferences for certain colors ⇒ Reaches for objects and grasps with greater accuracy ⇒ Locates small objects ⇒ Watches objects that are moving quickly
Hearing: 	⇒ Listens when spoken to ⇒ Understands words for familiar items (e.g., bottle, bath) ⇒ Repeats the sounds of others more often ⇒ Makes more sounds, sound combinations and may even say one to two words meaningfully

SECTION 2.2: BASIC FEEDING GUIDELINES FOR THE CHILD 0-12 MONTHS OLD

TYPICAL FEEDING DEVELOPMENT

A child's feeding skills are directly related to her entire body's movement and overall development. The "hips and the lips" are connected. How a child sits upright, reaches for food, expresses hunger with sounds and recognizes her bottle — are all examples of how the entire body is connected during a mealtime. Therefore, if there is a problem in even one area of development, there is a chance feeding development may be affected.

When feeding development is going well, a typical progression of skills for a baby 0-12 months old can look similar to this:

AGE IN MONTHS	TYPICAL FEEDING SKILLS AND DEVELOPMENT
0 – 3 Months	○ Sucking and swallowing when born ○ Rooting reflex present to help baby find liquids ○ Requires total support of caregiver for positioning during feedings ○ Feedings every two to four hours ○ 30 to 120 ml (1 to 4 fl. oz.) of liquid taken per feeding ○ Breast milk or formula only provided via breast and/or bottle
3 – 6 Months	○ Improved head and neck control ○ Sucking and mouthing on hands and objects ○ Held in more upright position for feedings by caregivers ○ Four to six feedings each day ○ 180 to 240 ml (6 to 8 fl. oz.) of liquid taken per feeding ○ Breast milk or formula provided and solid foods are slowly introduced
6 – 9 Months	○ More active participant in feedings ○ Sitting upright with little to no support ○ Fed in upright seated position with support from chair or feeder ○ Taking more solid foods such as smooth purees, soft mashed foods, etc. ○ Learning to eat and drink from a spoon and cup ○ Taking solids and breast milk or formula via breast, bottle or cup ○ Early chewing patterns begin ○ Taking larger amounts of foods/liquids at meals, less often throughout day
9 – 12 Months	○ Holding a bottle or cup during feedings and self-feeding finger foods ○ Eating foods with different textures such as chopped table foods ○ Biting down through certain foods using gums or teeth ○ Moving foods to sides of mouth using tongue ○ Showing more mature chewing patterns ○ Taking larger amounts of foods/liquids at meals, less often throughout day

During the first year of life, many changes take place in a baby's feeding development. Babies move from being fed solely by breast or bottle, to taking a good portion of their nutrition each day from solid, whole foods. Understanding what these transitions look like and approximately when they should happen will make it easier for caregivers to guide these transitions (for example, sitting upright in a chair, introduction of solid foods, cup drinking, spoon feeding) in a timely manner.

A caregiver and newborn baby gaze and smile at each other.

For information on breastfeeding, refer to Chapter 1, Section 4.

For more information on types of bottles, cups and spoons, refer to Chapters 1 and Appendix 9G.

For a quick reference guide, refer to the Feeding Skill Timeline in Appendix 9A.

BOTTLE FEEDING

Babies 0-12 months of age receive the majority of their nutrition through liquids (i.e., breast milk, formula). Babies are first offered liquids via the breast and/or a bottle. As a baby grows stronger over the first year of life, bottle feeding will gradually be replaced with more opportunities for eating solid foods and drinking liquids using a cup.

By 12 months old, most babies transition from bottle to cup drinking. Some children older than 12 months will continue to take a bottle before naps or bedtime. However, weaning entirely from the bottle between 12-18 months old is ideal. Breastfeeding can continue for as long as a mother and child would like.

A caregiver and child gaze at one another during a bottle feeding. Feedings are one of the best times to interact with a child.

EXTENDED BOTTLE USE HAS RISKS:

Children can develop problems with their teeth such as tooth rotting, decay and malformation. When teeth and mouths hurt, children stop eating.

Children can experience difficulties learning important feeding skills such as chewing foods and drinking from cups.

TYPICAL BOTTLE-FEEDING AMOUNTS FOR THE CHILD 0-12 MONTHS OLD

AGE	NUMBER OF FEEDINGS	AMOUNT OF BREAST MILK OR FORMULA
0-3 Weeks	Eight to twelve feedings a day	30-90 ml (1 to 3 fl. oz.) every two to three hours 240-720 ml (8 to 24 fl. oz.) total
3 Weeks – 3 Months	Six to eight feedings a day	90-120 ml (3 to 4 fl. oz.) 720-960 ml (24 to 32 fl. oz.) total
3-6 Months	Four to six feedings a day	120-240 ml (4 to 8 fl. oz.) 720-960 ml (24 to 32 fl. oz.) total
6-9 Months	Six feedings a day	180-240 ml (6 to 8 fl. oz.) 960 ml (32 fl. oz.) total
9-12 Months	Three to five feedings per day	210-240 ml (7 to 8 fl. oz.) 720 ml (24 fl. oz.) total
12+ Months	Up to four times a day	120 ml (4 fl. oz.) cow/soy/milk/yogurt

A caregiver carefully bottle feeds a newborn baby. She will need smaller, more frequent feedings during her first few months of life.

WEANING FROM THE BOTTLE

The ideal time to wean a baby from the bottle is between 12-18 months old. Generally, weaning from a bottle is a gradual process that can start before 12 months old. A baby may be introduced to a cup as early as 6 months old and should have had ample opportunities to explore and use a cup before completely removing the bottle.

SIGNS A BABY IS READY FOR BOTTLE WEANING

Able to sit up right on his own

Able to eat from a spoon

Shows increased interest in solid foods

Shows increased interest in cup drinking

TIPS FOR WEANING A BABY OFF OF A BOTTLE[27]:

① *Choose to wean a baby during a relatively stress-free time.* For example: It is not a good idea to start a wean if a baby has recently arrived at your center, recently been transferred to a new room, if he is sick or just getting over being sick, if a primary caregiver is gone or has left a facility permanently or if he has had a big change in his home (such as a new baby arriving).

② *Introduce lots of opportunities for cup drinking before weaning and start at an early age.* For example: Offer an empty cup to a baby to hold and play with as early as 3 to 6 months old. Help a baby hold the cup, and slowly tilt small amounts of liquids into her mouth. Cups with handles can be helpful for a baby first starting out.

③ *Try substituting an open cup or closed sippy cup for a bottle during one daily feeding.* Choose a feeding when the baby usually takes a smaller amount. Offer the cup at this same time each day for one to three weeks. Each week after, offer the cup at an additional feeding, slowly reducing the number of bottles the baby receives during the day.

④ *Consistency is key.* Consistently offer the baby the cup at the chosen feeding time each and every day.

⑤ *Communication is important.* Every caregiver must be aware that a baby is transitioning from the bottle to a cup.

⑥ *Sucking can be a helpful way for babies to become calm (and regulate) their bodies.* Because of this, some babies may take longer to wean from the bottle – beyond the ideal window of time. Offering these babies access to pacifiers for sucking or cups that look similar to a bottle may be necessary.

⑦ *Offer additional comforts during weaning.* Special comforts can include: A special blanket or lovey (as age-appropriate), play soothing music or sing to the baby, let the baby know how this might be hard for her (for example: "You want your bottle. It's hard learning something new.") and spend extra time cuddling with her.

INTRODUCING CUPS

Babies 0-12 months old receive the majority of their nutrition through liquids (i.e., breast milk, formula). As a baby grows stronger over the first year of life, breast and bottle feeding will gradually be replaced with more opportunities for cup drinking. Most babies can be introduced to a cup between 6-9 months old. This is a terrific time since babies this age are eager to learn new skills. If cup drinking opportunities are postponed for too long (for example, after the child grows to be 12 months old), it can make cup drinking and bottle weaning much more difficult. As with bottle feeding, signs that a baby is ready for cup drinking are similar:

By 12 months old, most babies have made or are in the process of transitioning from breastfeeding or bottles to cups.

SIGNS A BABY IS READY FOR CUP DRINKING

Able to sit up right on her own

Able to eat from a spoon

Shows increased interest in solid foods

Shows increased interest in cup drinking

Also similar to bottle feeding, is the amount of fluids offered to a baby via cup over the course of the day. When cups are initially introduced, a baby will continue to be primarily fed using a bottle. As a baby is learning how to drink from a cup, the amount of liquids they drink from it will be very small. Do not expect a baby to take the same amount of liquid from a cup that they usually take from a bottle. Slowly, as a baby becomes more comfortable and skilled, her cup drinking volumes will increase.

TIPS FOR INTRODUCING A CUP:

① *Offer lots of practice.* Allow lots of opportunities for exploring and playing with cups before asking a baby to drink from one. For example: Offer an empty cup to a baby to hold during a mealtime.

② *Small, slow, and thick.* Offer small amounts of liquid slowly. Offer thicker liquids or a smooth puree in a cup at first. Thicker liquids move slower, giving a baby more time to prepare for the liquid.

③ *Offer help in the beginning.* Help a baby hold the cup, and slowly tilt small amounts of liquid into his mouth. Cups with handles can be helpful for a baby first starting out.

④ *Offer a cup that suits the baby.* For example: A smaller size cup so that a baby can put her hand around it. Or try a closed cup with a soft spout that is similar to a bottle.

⑤ *Consistency is key.* Consistently offer the baby the same cup at the same time each and every day.

⑥ *Communication is important.* Every caregiver must be aware that a baby is transitioning to a cup and support routine cup offerings.

Cup drinking is a skill that takes practice and time. On average, babies will master cup drinking in approximately three to six months. This means that they will need extra support from caregivers during this transition.

INTRODUCING SOLIDS

Babies 0-12 months old receive the majority of their nutrition through liquids, such as breast milk or formula. At 6 months old, most babies are ready to be offered their first tastes of solid foods. As a baby grows stronger over the first year of life, a baby's consumption of liquids will slowly reduce with increased opportunities for eating solid foods. When babies eat solid foods, they are exposed to many new tastes and textures. It's an exciting time in life.

SIGNS A BABY IS READY FOR SOLID FOODS

Able to sit up right on his own

Able to hold head upright with good control

Able to reach out and grab objects

Shows increased interest in solid foods

Opens mouth in anticipation of food on utensil

As with cup drinking, when solid foods are first introduced, a baby will take small amounts. The main source of nutrition will continue to be liquids from the bottle or breast. As a baby is learning how to eat solids and as her body becomes used to them, the amount of foods she eats will increase over time. Do not expect a baby to take large amounts of solid foods right away.

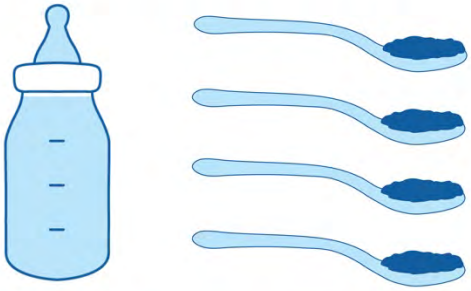
A caregiver offers solid foods to several young new eaters.

Transitioning to solid foods is a process that involves skill and takes plenty of practice and time (and it will be messy). On average, babies will master eating solid foods by around 2 to 3 years old. This means that they will need extra support from caregivers for quite a bit of time

TYPICAL SOLID FOOD AMOUNTS FOR THE CHILD 0-12 MONTHS OLD

6 MONTHS

1-2 meals per day



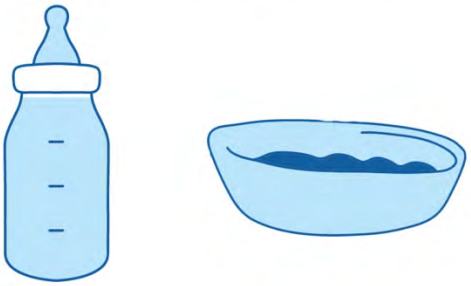
840-960 ml
milk per day (on average)

+

30-60 g
baby food per meal

7-9 MONTHS

2-3 meals per day



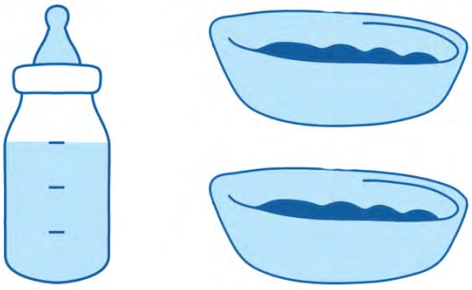
840-960 ml
milk per day (on average)

+

56-112 g
baby food per meal

10-12 MONTHS

3 meals per day



540-720 ml
milk per day (on average)

+

112-168 g
baby food per meal

TIPS FOR INTRODUCING SOLID FOODS:

① *Offer lots of practice.* Allow lots of opportunities for exploring foods before asking a baby to eat them. For example: Eat foods around a baby so he will see how the food looks and experience its smell. Let a baby touch an offered food with his hands before ever offering it to him to eat.

② *Choose to introduce foods during a relatively stress-free time.* For example, it is not a good idea to begin introducing solid foods if a baby has recently arrived at your center, recently been transferred to a new room, if she is sick or just getting over being sick, if a primary caregiver is gone or has left a facility permanently or if she has had a big change in her home such as a new baby arriving.

③ *Seat baby upright for all meals.* Use a chair or hold baby in your arms with good positioning.

④ *Slow and small.* Offer one food at a time in the beginning to see if a baby has allergic or other negative reactions to foods. Offer small amounts of food at a time in order to not overwhelm a baby.

⑤ *Eat together.* Eat along with a baby, known as "family style," to teach a baby what eating is like. Babies best learn through seeing and doing.

⑥ *Offer a spoon that suits the baby.* For example, a smaller size spoon that fits comfortably inside her mouth. Solid foods can also be introduced on a caregiver's clean finger.

⑦ *Consistency is key.* Consistently offer a baby solid food at the same times each and every day.

⑧ *Communication is important.* Every caregiver must be aware that a baby is transitioning to solid food.

Young babies are learning all about solid food as they take tastes off of a spoon when offered by their caregiver.

Babies are more likely to eat a food that they are able to touch and explore

KEY POINTS FOR THIS AGE

During the first year of life, babies are growing incredibly fast and each day brings opportunities for countless moments to learn. Because babies are developing so many new skills over this first year of life, caregivers play an essential role. A supportive caregiver is able to understand when a baby is ready to try something new such as solid foods. They also know when she may need extra time or support taking a bottle or drinking from a cup. For babies to become successful eaters, they must be supported by knowledgeable and attentive caregivers.

IMPORTANT POINTS TO REMEMBER:

① All areas of a baby's development are connected. Growth in one area leads to growth in another, including feeding skills.

② When feeding is going well, babies can handle new challenges such as transitioning to cup drinking and learning to eat solid foods.

③ Caregivers must understand what's expected for babies so that they know when to offer new experiences (for example, cup drinking, solid foods) and when a baby may need more time or support.

④ The first year of life is an exciting time as babies are expanding their tastes and growing their interest in eating real, whole foods.

SECTION 2.3: FEEDING POSITIONING FOR THE CHILD 0-12 MONTHS OLD

THE IMPORTANCE OF FEEDING POSITIONING

The way we position a baby during a feeding is very important. Certain positions can make feeding much easier for a baby, and some positions can make feedings more challenging and even unsafe.

Good positioning has many benefits for babies and caregivers such as:

- ✓ More timely feedings
- ✓ Increased ability to accept different textures
- ✓ Better oral intake
- ✓ Improved growth and nutrition
- ✓ Reduced occurrence of illness and death

✓ When positioning is good, babies and caregivers are happier and feedings are a positive experience.

Poor positioning has many risks such as:

- ∅ Inefficient and longer feedings
- ∅ Reduced ability to accept different textures
- ∅ Inadequate oral intake
- ∅ Poor growth and nutrition
- ∅ An increased occurrence of illness and death

∅ When positioning is poor, feedings can be a stressful, negative experience for babies and their caregivers.

This section covers the best positions for bottle feeding babies and which positions are best suited for each baby. This section will also discuss the best positions for finger and spoon feeding for babies 6-12 months old, and who is best suited for each position[7].

BENEFITS AND RISKS OF POSITIONING FOR FEEDING:

BENEFITS OF GOOD POSITIONING	RISKS OF POOR POSITIONING
↑ Efficiency of feedings	↓ Efficiency of feedings
↑ Capacity for successfully taking different foods	↓ Capacity for successfully taking different foods
↑ Baby's intake during feedings	↓ Baby's intake during feedings
↑ Baby's enjoyment of feedings	↓ Baby's enjoyment of feedings
↑ Baby's interest in and capacity for feeding themselves	↓ Baby's interest in and capacity for feeding themselves
↑ Baby's overall growth and nutrition	↓ Baby's overall growth and nutrition
↓ Occurrence of aspiration, illness, death	↑ Occurrence of aspiration, illness, death

A caregiver practices good positioning while feeding a young baby.

KEY POINTS WHEN CHOOSING A FEEDING POSITION FOR A BABY 0 – 12 MONTHS OLD:

- Is the baby's head and neck well supported?
- Is the baby's trunk (body) well supported?
- Is the baby upright enough?
- Is the flow of the bottle too fast or too slow for the baby?
- How is gravity impacting how the baby feeds?
- Is the feeder/caregiver comfortable in this position?

Additionally, you may need to consider other individual needs of a baby such as:

① *What is the size of the baby?* A larger baby may be more challenging to hold in certain positions.

② *How strong is the baby?* A weaker baby may need a position that offers the most support, whereas a stronger baby may need a position that requires less.

③ *Does the baby appear comfortable in the position?* An uncomfortable baby is a baby who will not feed well.

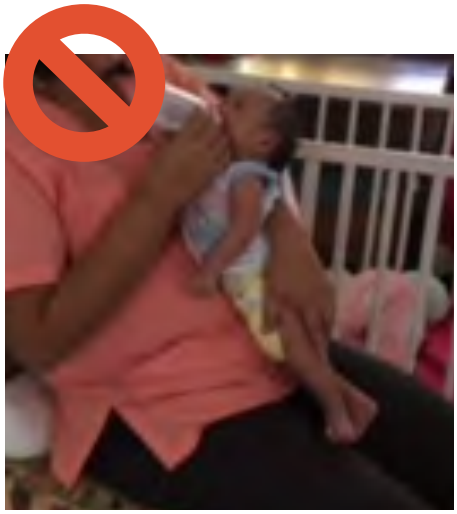
④ *Is the baby fussy?* A fussy baby is a baby who will not feed well.

⑤ Is the baby coughing or choking often in this position? A coughing or choking baby is at risk for poor nutrition, illness and unsuccessful feedings.

EXAMPLES OF GOOD AND POOR POSITIONING FOR BOTTLE FEEDING

GOOD POSITIONING

- Baby is elevated with head higher than hips
- Head and neck are well supported by caregiver's arm and chest
- Baby is tucked close to caregiver's body
- Arms and legs are tucked toward baby's body so he can touch bottle
- Hips are slightly bent
- Bottle is in a neutral position



POOR POSITIONING

- Baby's head and neck are not well supported
- Head and neck are extended too far back
- Baby's hips are not flexed
- Baby's back is arched
- Arms are unsupported without access to bottle
- Baby looks uncomfortable
- Bottle is tilted too high to accommodate baby's extended head

POOR POSITIONING

- Baby is lying down flat on back while feeding
- No caregiver is present
- This position is very dangerous and can cause sickness and death
- Never feed a child or let them feed themselves lying flat on their back
- Caregivers must always be present for feedings

Holding babies while feeding is essential for healthy development.

EXAMPLES OF GOOD AND POOR POSITIONING FOR EARLY SPOON FEEDING

GOOD POSITIONING

- Baby is in well-supported chair and upright position
- Head, neck and trunk are well supported
- Hips are flexed
- Knees are bent at 90-degree angle
- Feet are supported with cushions
- Arms are free for touching foods and supported by tray

POOR POSITIONING

- Baby's head and neck are not well supported by chair
- Head and neck are extended too far back
- Trunk and arms are not supported well in chair, making it impossible for baby to reach and touch foods
- Chair offers poor overall support
- Baby is almost lying down flat for feeding

POOR POSITIONING

- Baby's head and neck are not well supported
- Chin is tucked too far forward
- Baby's arms and legs are unsupported and splayed away from her body
- Hips are not bent
- Body is facing outward away from her caregiver's body

Remember: Bottles should never be propped during feedings. Bottle propping (i.e., positioning a bottle in a baby's mouth so a caregiver does not need to hold the baby or the bottle during a feeding) has serious consequences such as ear infections, reflux, choking, poor intake and nutrition and impaired skills relating with others. This can be dangerous for a baby and it does not promote positive relationships between caregivers and babies. *Never prop a bottle*.

BEST POSITIONS FOR BOTTLE FEEDING, SPOON FEEDING AND CUP DRINKING

As babies grow and develop, the position they are fed in will most likely need to change. For example, a newborn baby who is fed a bottle in the cradle position, will eventually sit upright in a high chair for meals when he tries solid foods at 6 months old.

If the current position does not feel right to you or for the baby, it's OK to try a different position. Sometimes caregivers must try multiple positions until they find the just right fit.

Listed below are the most common positions used for feeding babies who are 0-12 months old. Many positions may fit the needs of a single baby.

CRADLE POSITION

HOW TO: Place baby's head in the fold of your arm. Support baby's body with both of your arms and your chest. Keep baby in an elevated position while feeding. Baby's head should be higher than his hips.

BEST FOR: All babies 0-12 months old; bottle feedings

ESPECIALLY GOOD FOR:

- babies 0-6 months old
- babies who need extra postural support (help getting and staying in a good, stable position) that cannot be offered or maintained by a chair
- babies who are best regulated (calmed) when held by caregivers

SIDE-LYING POSITION

HOW TO: Place baby on her side with her body and head rotated out and away from your body. Baby can be placed directly on your lap, on a pillow/cushion or along crossed legs. Gently support baby's head and body using your hands. Baby's head is positioned higher than her hips.

BEST FOR: All babies 0-12 months old; bottle feedings

ESPECIALLY GOOD FOR:

- babies 0-6 months old
- babies who leak liquids from their mouths when feeding
- babies who need a slower pace when feeding (i.e., babies born early, babies with syndromes, babies exposed to alcohol/drugs, etc.)
- babies who spit up frequently or have pain/discomfort with feedings (GER/GERD)
- babies who tire easily during feedings
- babies who have trouble focusing during feedings

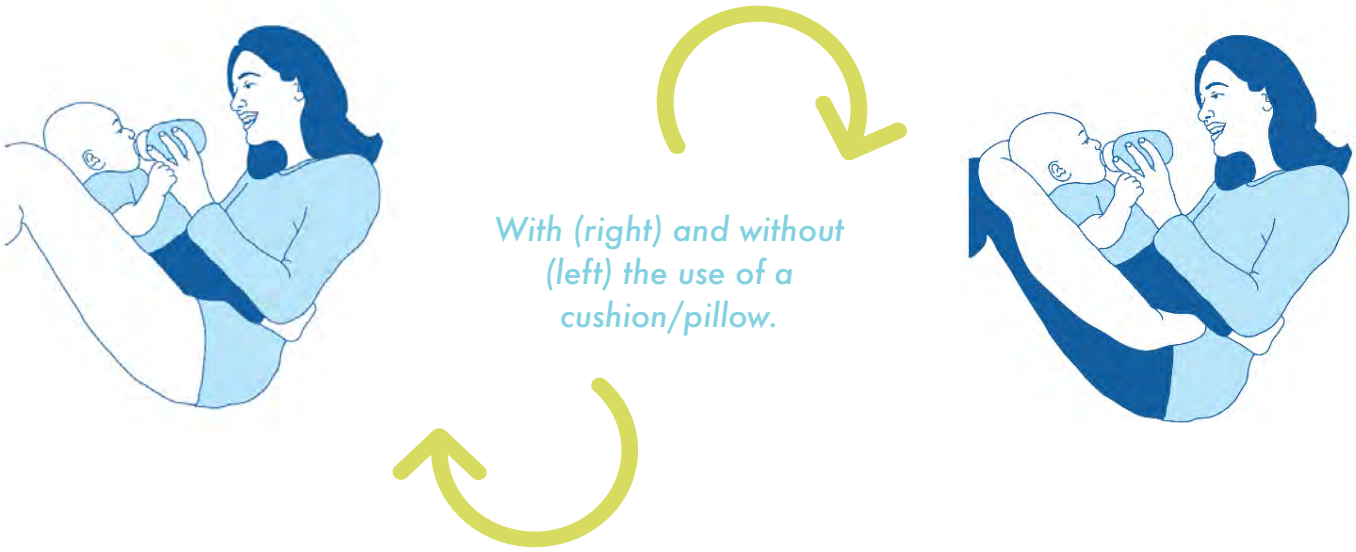
RECLINED POSITION (ON LAP OR ON PILLOWS/CUSHIONS)

HOW TO: Place baby directly on your elevated knees or on a pillow (or towel, cushion, etc.) that is placed on your elevated knees. Baby should be facing you with his head resting on your knees and/or the pillow. Rest your body against a comfortable surface such as a couch, bed or wall with pillows or padding.

BEST FOR: All babies 0-12 months old; bottle feedings

ESPECIALLY GOOD FOR:

- babies 0-6 months old
- babies who spit up frequently or have pain/discomfort with feedings (GER/GERD)
- caregivers who tire easily from holding a baby



With (right) and without (left) the use of a cushion/pillow.

UPRIGHT SEATED FORWARD POSITION (IN BABY SEAT/HIGH CHAIR)

HOW TO: Place baby in a well-supported position in a baby seat or high chair. Baby should be facing you in the comfort of the seat. You should be holding the bottle, cup and/or spoon and/or baby can assist with this when able. Using a tray or table with the seat or chair is helpful for encouraging a baby to explore foods and feed himself using fingers, utensils and cups.

BEST FOR: Most babies 6-12 months old; spoon feeding, finger feeding, cup drinking, bottle feedings

ESPECIALLY GOOD FOR:

- babies 6-12 months old who have good head and neck control for sitting upright with little to no support when placed in a chair or seat.

SWADDLING FOR THE BABY[28,29]

Swaddling is a method for wrapping babies while offering them the benefits of a calming and safe position for feedings and sleep.

REASONS TO SWADDLE:

- A swaddled baby feels like they are in the comfort and security of her mother's belly.
- Swaddling offers warmth and reduces the chance that a baby will be disturbed by her own startle reflex.
- Swaddling feels like a warm hug, is soothing and helps calm babies for eating and sleeping.

HOW TO: Swaddling a baby requires a blanket, towel or cloth that is at least 101 centimeters (40 inches) by 101 centimeters (40 inches) in size. It is recommended to use blankets made of thin and stretchy material for swaddling so that it wraps easily and keeps the baby from getting too hot. There are several ways to swaddle a baby. Find the method that works best for you and for your baby.

BEST FOR: Most babies 0-4 months old; bottle feedings

A caregiver holds a beautifully swaddled newborn baby.

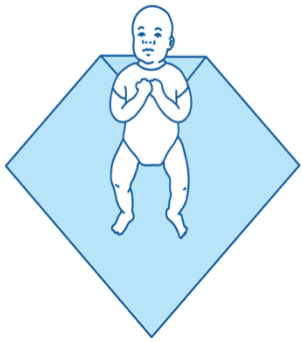
ESPECIALLY GOOD FOR:

- babies 0-4 months old
- babies who become overwhelmed during feeding (for example, babies born early, babies with syndromes, babies exposed to alcohol/drugs, etc.)
- babies who have trouble focusing during feedings
- babies who are difficult to calm
- babies who often wake or startle themselves with their own movements

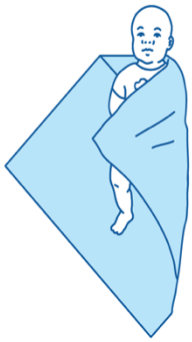
THINGS TO REMEMBER:

- Swaddling is only meant to be used with a baby during the first few months of life (0-4 months).
- Leave ample room for a baby's feet when swaddling to avoid hip injuries and overheating.
- As babies get older, they may do best when swaddled with one arm out.
- If baby is starting to roll onto his tummy, swaddling should be stopped to keep baby safe.
- If baby is breaking free from a swaddle (leading to lose blankets in a crib), swaddling should be stopped or a safer blanket should be used to keep baby safe.
- Some babies do not enjoy being swaddled and alternatives must be found.
- Babies should not be swaddled all day and night – they need time to move their bodies freely so they can grow strong and healthy.
- Swaddling often works well for helping babies become calm enough for sleep.

STEPS FOR SWADDLING A BABY



STEP 1



STEP 2

STEP 3

STEP 4

STEP 1: Lay a blanket on a flat surface in a diamond shape with two corners facing north and south (top and bottom). Fold down the top corner of the blanket about 10 to 16 cm (4 to 6 inches). Place baby on his back on the blanket with his neck on the fold you just made. Gently wrap one side of the blanket across his body. Snugly tuck under his back. Keep his hips loose (slightly bent "frog legs") and avoid pulling or straightening his legs, which can lead to hip injuries.

STEP 2: Wrap the bottom corner of the blanket up toward the baby's chest and unwrapped shoulder.

STEP 3: Wrap the other side of the blanket around him.

STEP 4: Tuck the corner into the front pocket you've made.

FEEDING POSITIONING CHECKLISTS FOR THE 0-12 MONTHS OLD

Follow these positioning guidelines when feeding babies 0-6 months and 6-12 months old to decrease the risk of aspiration, illness and to increase safety and comfort during feedings.

0-6 MONTH FEEDING POSITIONING CHECKLIST

AT 0-6 MONTHS A BABY'S:

- ☐ head is centered and in midline position
- ☐ body is swaddled (0-4 months)
- ☐ chin is slightly tucked forward
- ☐ shoulders are naturally rounded
- ☐ body is supported firmly by a caregiver's body, arms and chest
- ☐ hips should be lower than the head

6-12 MONTH FEEDING POSITIONING CHECKLIST

AT 6-12 MONTHS A BABY'S:

- ☐ hips should be positioned at 90 degrees and lower than the head
- ☐ body (trunk) should be upright and well supported by caregiver's body or chair – not leaning forward, backward or to either side
- ☐ shoulders should be level and facing forward
- ☐ head is centered and in midline, neutral position with chin slightly tucked
- ☐ knees should be at a 90-degree angle
- ☐ feet flat on floor, foot rests or against caregiver's body

KEY POINTS FOR THIS AGE

Feeding a baby can be much more complex than simply getting a bottle and giving it to a baby. Good positioning can make feedings safe, enjoyable and support development, whereas poor positioning can lead to many challenges for babies and caregivers. Caregivers must be skilled in understanding the essential aspects of correct positioning for feedings so that babies are fed efficiently, safely and comfortably.

IMPORTANT POINTS TO REMEMBER:

① Feeding positioning can positively or negatively impact a baby's feeding skills.

② The way we position a baby for feedings is very important. The correct level of support a baby is given will increase her success during feedings.

③ Caregivers must always consider the key aspects of positioning and a baby's individual strengths and needs in order to choose the best position for feeding.

SECTION 2.4: BEYOND THE MEAL: TIPS FOR SUPPORTING THE CHILD 0-12 MONTHS OLD

The first few months of life are an important time for a baby. Babies are learning so much about themselves and the world around them through their everyday experiences and relationships with their caregivers. In this section, we will share simple ideas to encourage healthy development across all areas of a baby's first year of life – beyond the feedings.

By incorporating these supports for a baby during everyday activities and routines, caregivers can support a baby's development in an efficient way that requires very little extra time. Try adding them into mealtimes, dressing/undressing routines, during diaper changes, bath time, when offering comfort and when providing care for multiple babies at a time (for example, while changing one baby, another baby is enjoying time on the floor near her caregiver).

MOTOR MOVEMENTS

Supporting a baby's motor development is something that can easily be done each and every day. When a baby is able to move her body and explore the world, she is growing both her body and brain. Additionally, supporting a baby's movement directly supports feedings. Strong babies with good motor skills typically have fewer issues with feedings, and issues are able to be resolved more quickly.

MOTOR (PHYSICAL) ACTIVITIES	DESCRIPTION (WHAT IT LOOKS LIKE)
Tummy Time **Modified Tummy Time**	⇒ Place baby on her tummy on the floor, on a blanket or on a bed (supervised). ⇒ Offer baby your face, a toy or a mirror to look at during tummy time to make it more enjoyable. ⇒ Roll up a small blanket, towel or cloth and put it under her chest for extra support while she is on her tummy. ⇒ Offer *modified tummy time* for the baby who is having trouble being on his tummy. Place baby on your chest or on a squishy, soft ball. Baby is still practicing tummy time, but he is not working as hard. ⇒ Small amounts of tummy time practice throughout the day is ideal.

Playtime on Floor	⇒ Encourage daily play on the floor to increase baby's independence in movement. ⇒ Place toys around her when she is laying or sitting on the floor to encourage movement in different directions. ⇒ Encourage baby to have ample and equal time on her back, sides and tummy so she can learn to use all of these important muscles.
Sitting and Standing Play	⇒ Help baby practice sitting upright on the floor and standing upright by offering frequent opportunities for practice. ⇒ Offer different items for him to reach for and offer them from different locations (in front of him, to his left/right sides, slightly elevated in front of him). ⇒ Spend time interacting with him while he is practicing his sitting. ⇒ Having baby sit near you using your body as support is a great way to build his strength. ⇒ Sitting for mealtimes and reaching for food is great practice during the day. ⇒ Stand at a table or couch or chair with her holding on. ⇒ Hold baby upright in a standing position for short bursts while interacting together. ⇒ Hold her hands while in a standing position and help her move forward.
Reaching, Grasping and Letting Go	⇒ Place objects near enough for baby to reach and touch with his hands. ⇒ Try gently tapping baby's hands with an object to encourage reaching and grasping. ⇒ Once baby is grasping objects and letting them drop, encourage him to pick them back up for more practice. ⇒ Objects that hang from "jungle gyms" are great for encouraging reaching and grasping. ⇒ Reaching and grasping finger foods is a perfect time for this type of work.
Finger and Hand Play	⇒ Encourage finger and hand movements using different objects and toys. ⇒ Place small toys into a container, box or bag and let baby move the toys in/out of the container. ⇒ Play with toys that have holes to help her learn how to poke and point with her fingers. ⇒ Play with toys that make loud noises (for example, blocks, pots, pans, instruments, etc.) and encourage banging them together. ⇒ Begin offering finger foods to help baby with using her finger and thumb to pick up items.

This young child is getting strong and having fun by practicing tummy time during playtime on the floor.

PLAY AND LEARNING

Supporting a baby's early play and learning is something that can easily be done each and every day. In fact, the main way babies learn is through play. Therefore, when a baby is able to play, explore objects, interact with others and discover its environment, the baby is growing a strong brain.

PLAY AND LEARNING ACTIVITIES	DESCRIPTION (WHAT IT LOOKS LIKE)
Watching and Looking	⇒ Place baby under a mobile, jungle gym (or similar items with dangling objects) so she can gaze at different sights. ⇒ Try holding objects in front of baby (about 30 cm [12 inches] from her face), and moving them side to side for baby to follow. ⇒ Move your face from side to side for baby to follow during playtime on the floor or during activities such as diaper changes. ⇒ Hide an object under a cloth and then let baby have fun finding it.
Talking, Singing and Reading	⇒ When together, talk about what you are doing, what baby is doing and what is happening around you and baby. ⇒ Sing songs and share poems or rhymes. ⇒ Read or tell stories. ⇒ Cut out large pictures from magazines or look at bright colored books together. ⇒ Label objects and people you see, and describe what's happening in a picture, a room or outside. ⇒ Name body parts as you dress and undress a baby.
Playtime on Floor	⇒ Play with baby where she is at – on her level – which is most often on the floor. ⇒ Make silly faces and sounds with baby, shake a rattle, look at each other in a mirror during tummy time and play peek-a-boo or patty cake games. ⇒ Babies enjoy playing with bells, balls, rattles, dangling toys, large blocks, tin cups, spoons, pots, pans, teethers, books with pictures, mirrors, toy cars, stacking cups, squeaky toys, etc.

This young boy is learning so much during playtime on the floor with blocks. He's also practicing sitting up all by himself.

COMMUNICATION AND RELATIONSHIPS

Supporting a baby's early communication and relationships is something that can easily be done each and every day. Positive relationships are the primary way to build strong children and supporting a baby's earliest forms of communication is a wonderful way to nurture relationships between caregivers and babies. When caregivers are deeply connected to babies, babies feel safe, secure and ready to learn and grow.

COMMUNICATION AND RELATIONSHIPS ACTIVITIES	DESCRIPTION (WHAT IT LOOKS LIKE)
Playtime on Floor	⇒ When together, talk, tell stories, read and sing or hum to baby. ⇒ Make silly faces and sounds together. ⇒ Share special rhymes or poems, look at pictures and play simple games such as peek-a-boo. ⇒ Repeat baby's sounds and encourage talking between the two of you.
Calming and Soothing	⇒ During moments of upset, use the same movements and sounds repeatedly to soothe baby such as rocking, swaying, bouncing, patting, massaging, singing, shushing, etc.
Connecting	⇒ Connect with baby in different ways. Repeat the sounds that baby makes or her faces, such as smiling and sticking her tongue out. ⇒ Take time to gaze at baby during activities such as diaper changes, feedings and bathing. ⇒ Use touch to connect with baby, such as snuggles, hugs, massage, wearing, holding and carrying, etc.
Consistently Care	⇒ When baby expresses upset (for example, hungry, dirty diaper, sick, pain, wanting attention), respond to him consistently and in a timely manner with soothing words and/or touch and physical comfort.

These young children are getting lots of necessary practice moving their bodies while exploring their surroundings with a caring adult and their friends.

KEY POINTS FOR THIS AGE

Being a supportive caregiver means supporting babies not just during mealtimes, but also during all other moments throughout the day. Every activity and routine throughout the baby's day is an opportunity to enhance a baby's life. Use convenient objects from your environment, and offer short, frequent moments throughout the day for activities. Since development is interconnected, often times multiple areas can be supported simultaneously through the incorporation of one simple activity.

IMPORTANT POINTS TO REMEMBER:

① All areas of a baby's development are connected. Support in one area can positively impact another area.

② Supporting the whole child will also support feeding development.

③ Babies will reap the benefits when caregivers find small moments throughout the day to incorporate activities that support total development.

PART 2 | CHAPTER 3

THE GROWING CHILD: 12-24 MONTHS OLD

"A person's a person, no matter how small."

Dr. Seuss

SECTION 3.1: IMPORTANT DEVELOPMENTAL MILESTONES FOR FEEDING: 12-24 MONTHS OLD

THE IMPORTANCE OF DEVELOPMENTAL MILESTONES

During the second year of life, children make many advances in their development.

Physically, the toddler moves their body more often in a greater variety of ways. Socially and emotionally they are learning how to express their wants, needs and feelings using words as well as feeling a deep connection with special caregivers. All these advances lead a toddler to explore the world using all these new skills. Each area of development is linked and influence each other. It is important to view the toddler's development in a holistic way. When working to support children 12-14 months of age who need extra help with feeding, it is critical to consider all areas of development.

For more information about each developmental domain, refer to the Introduction.

EXAMPLE OF A HOLISTIC VIEW OF FEEDING (12-24 MONTHS OLD):

DEVELOPMENTAL AREA	DEVELOPMENTAL MILESTONES (SKILLS)
Adaptive	Child receives good rest at night and daily naps.
Motor | Communication | Cognitive	Child reaches for food when hungry or says "water" when thirsty.
Social-Emotional | Communication | Vision	Child shouts with joy when she sees her caregiver bringing food.
Social-Emotional | Communication | Hearing	Child smiles and speaks when fed and spoken to by her caregiver.

Adaptive | Motor | Cognitive	Child sits upright in a chair and feeds herself food using her hands and a spoon.
Communication | Cognitive	Child shows understanding of simple directions given during meals ("Time to eat," "Wash your hands," "All done.").

Feeding is a complex process and all areas of development are involved. Even when just one area is not working well, it can create challenges for a child and her caregivers. Therefore, it is critical to look at children broadly in all areas to understand their abilities and their needs. By understanding these basic milestones of development (also known as skills) and how they work together, caregivers can become experts at knowing when development is going well and when there may be a problem. Skills are interconnected, and there are always opportunities to support every area of development during simple, everyday activities such as mealtimes.

The earlier challenges can be identified, the sooner support can be provided, resulting in happier and healthier children and caregivers.

Remember: Development is a process. There is a large range of typical times when children develop these skills. Caregivers need to be familiar with common developmental milestones to best meet the needs of the children they serve.

Young children are seated around a table for a meal. Meals with friends are always better.

COMMON DEVELOPMENTAL SKILLS[23,24,26]

CHILDREN 12-18 MONTHS OLD:

Adaptive: 	⇒ Drinks from an open cup with less support ⇒ Drinks from a straw with support ⇒ Moves food to sides of mouth for chewing textured foods ⇒ Tries to wash own hands and face
Communication: 	⇒ Responds to simple directions ("No," "Give me ___," "Put it on the table") ⇒ Identifies familiar objects and people ⇒ Uses gestures to express self (waving, reaching, pointing, pushing away, shaking head for "yes" and "no") ⇒ Repeats words and uses more single words to express self
Fine and Gross Motor: 	⇒ Uses utensils to feed self with greater ease ⇒ Places objects in containers ⇒ Moves from hands and knees to standing without support ⇒ Takes steps without support
Cognitive: 	⇒ Points to gain attention of others and to request items ⇒ Enjoys pretend play (for example, feeding dolls and animals) ⇒ Combines related objects (for example, putting spoon in a bowl) ⇒ Knows everyday uses (for example, stirs or eats off of spoon, brushes teeth with a toothbrush, sweeps with a broom)
Social-Emotional: 	⇒ Attempts to comfort others who are upset or in distress ⇒ Wants to do many things without help from others ⇒ Looks to caregivers for reassurance when faced with something new ⇒ Separates from a caregiver in a familiar setting without getting upset
Vision: 	⇒ Points to, looks at or pats pictures in books or displayed photos ⇒ Recognizes own face in reflection ⇒ Judges distances with greater accuracy ⇒ Matches similar looking objects
Hearing: 	⇒ Understands the meanings of more words ⇒ Responds to simple directions and their name ⇒ Repeats familiar sounds and words more often ⇒ Makes more sounds and learns to say more words

COMMON DEVELOPMENTAL SKILLS[23,24,26]

CHILDREN 18-24 MONTHS OLD:

Adaptive: 	⇒ Drinks from a cup and from a straw without support ⇒ Feeds self using fingers and utensils without support ⇒ Tries to scoop, fill and pour both foods and liquids ⇒ Eats most adult table foods
Communication: 	⇒ Responds to more complex directions ("Get your spoon and give it to me.") ⇒ Points to objects, pictures and people when named by others ⇒ Has at least 50 to 200 words they can say all on their own ⇒ Puts words together to say simple phrases ("More water," "Milk, please," "No, my cup")
Fine and Gross Motor: 	⇒ Uses one hand more often than another ⇒ Uses hand to hold plate or bowl when scooping with hands or utensils ⇒ Walks longer distances with greater control and with less support ⇒ Begins walking up stairs
Cognitive: 	⇒ Begins sorting objects by type, shape and color ⇒ Uses substitute objects to represent other objects (for example, uses stick as spoon, uses brush as phone) ⇒ Stacks several blocks without support ⇒ Tries to figure out how objects work
Social-Emotional: 	⇒ Shows pride when doing something well ⇒ Shows strong desire to take care of own needs ⇒ Shows defiant behavior (doing what they are told not to do) ⇒ Asks for help when having trouble
Vision: 	⇒ Finds specific items in pictures ⇒ Focuses on objects near and far ⇒ Points to simple body parts when asked ⇒ Repeats hand movements such as scribbling with a crayon and paper
Hearing: 	⇒ Distinguishes differences in speech sounds with greater ease ⇒ Repeats words and simple phrases more often ⇒ Uses more sounds in words with greater accuracy ⇒ Responds to more complex directions with greater ease

SECTION 3.2: BASIC FEEDING GUIDELINES FOR THE CHILD 12-24 MONTHS OLD

TYPICAL FEEDING DEVELOPMENT

A child's feeding skills are directly related to her entire body's movement and overall development. The "hips and the lips" are connected. How a child moves her body from side to side and up and down, holds herself upright in a chair, picks up foods with her fingers, uses objects for feeding herself such as a cup and spoon, expresses hunger using words and simple phrases and responds to caregivers giving directions for preparing for mealtimes are all examples of how the entire body is connected during a mealtime. Therefore, if there is a problem in even one area of development, there is a chance feeding development may be disrupted.

When feeding development is going well, a typical progression of skills for a child 12-24 months old can look like this:

AGE IN MONTHS	TYPICAL FEEDING SKILLS AND DEVELOPMENT
12-18 Months	○ Holding and drinking from a cup with some loss of liquid ○ Trying to drink from a straw ○ Using fingers to feed self and trying to use utensils ○ Eating foods with different textures with growing success (for example, chopped table foods) ○ Biting down through tougher foods using gums or teeth ○ Chewing in a more mature manner ○ Taking larger amounts of foods and liquids during meals
18-24 Months	○ Drinking from a cup with little if any loss of liquid ○ Drinking from a straw without support ○ Using fingers and utensils to feed self with greater success ○ Eating most food textures now and with success ○ Showing mastery of most oral-motor skills by 24 months

Many changes continue during the second year of feeding development. Young babies who only eat a small amount of solid food in addition to bottle nutrition become toddlers who eat primarily solid foods and discontinue using bottles. During this time, children also move from being fed by their caregivers to taking more of an active role in learning how to feed themselves using fingers, cups and utensils. By the age of 2 (24 months), most children have the oral-motor skills necessary to handle all types of solid foods. That's a lot of change! For children to successfully make these transitions, it's essential that caregivers have a general idea of what to expect from children. It is helpful for caregivers to understand typical development in order to know the right times to assist the progression of feeding skills. These

skills include advancing to different textures, open cup drinking, straw drinking and self-feeding with a spoon.

In the following sections, we will share the different ways to feed children 12-24 months old using cups, straws and utensils and when to introduce them.

An older child helps feed another younger child during mealtime. Peers can be great helpers, too.

For more information on types of cups, bowls, plates, and spoons, refer to Chapters 1 and Appendix 9G.

CUP DRINKING

Most children can be introduced to a cup between 6-9 months old. This is a terrific time to introduce cups since children at this age are eager to learn new skills. If cup drinking opportunities are postponed for too long (after 12 months), it can make the process of cup drinking and bottle weaning much more difficult. By 12-24 months old, a child should be skillful in cup drinking and be able to manage an open cup, sippy cup and straw. It is during this time that caregivers will shift their focus from introducing cups to encouraging more interest in and opportunities for successful cup drinking.

TIPS FOR ENCOURAGING USE OF A CUP:

① **Offer lots of practice.** Allow lots of opportunities for drinking from cups during every meal throughout each day. The more a child practices cup drinking, the better he will become at it.

② **Small, slow and thick.** Offer small amounts of liquid slowly. Offer thicker liquids or a smooth puree in a cup at first. Thicker liquids move slower, giving a child more time to prepare for the liquid.

③ **Offer help in the beginning.** Make sure the child is sitting upright, help the child hold the cup to their lips and slowly tilt a small amount of liquid into the mouth.

④ **Offer a cup that fits the child.** Typically cups that are light weight and smaller tend to fit the smaller size and needs of a child. A smaller cup can be easier child to hold with both of their hands. it can also be helpful to use cups with one or two handles on the sides. A closed lid cup with a soft spout can be part of a transition to support a child reluctant to switch to cup drinking.

⑤ **Consistency is key.** Consistently offer the child the same cup at the same time each and every day.

⑥ **Communication is important.** Every caregiver must be aware that a child is transitioning to a cup and support routine cup offerings.

⑦ **Drink from cups together.** Children like doing what others are doing. When you drink from an open cup at mealtimes and snacks, it helps children learn new skills.

TYPES OF CUPS

There are many different types of cups available to choose from for a child. Finding the right cup that fits a child's needs is an important guideline to follow. Some children will do well with any cup they are offered. However, not all cups will work well for every single child. Cups will vary in size, shape, material and design. Always choose a cup based on the child's developmental skills and individual needs.

For children 12-24 months old, opportunities to learn how to drink from an open cup are important. Although sippy cups are helpful for preventing messes, they can also limit a child's skill development.

Open cup drinking has several benefits including:

- Improving strength, control and movement of the jaw
- Improving mastery of all the muscles of the mouth
- Improving swallowing skills (strengthens swallowing development)
- Improving development of fine motor skills and coordination

ISSUES RELATED TO PROLONGED OR OVERUSE OF SIPPY CUPS:

- Limited development of jaw strength leading to difficulty chewing foods
- Reinforcement of sucking patterns leading to challenges developing more mature feeding skills such as chewing
- Inhibited swallowing development leading to unsafe feedings
- Problems with dentition and speech sound development leading to tooth rotting, decay, malformation and difficulty understanding a child's speech

STRAW DRINKING[30]

Many children learn how to drink from a straw at a very young age — as early as or before 12 months old. Successful straw drinking is largely based on a child's experience. If a child has many opportunities to practice drinking from a straw, she can easily master this skill at a young age.

Straw drinking also has several benefits including:

① Improving strength, control and closure of the lips
② Improving sucking skills
③ Improving swallowing skills
④ Offering an easier way for many children with special needs to drink independently

TIPS FOR INTRODUCING STRAWS:

① **Offer lots of practice.** Allow lots of opportunities for drinking from straws during every meal throughout each day.

② **Offer help in the beginning.** Help a child hold the cup with straw, and support her with sipping small amounts of liquid at a time. Also, make sure her body is positioned well with adequate support.

③ **Offer a straw that suits the child.** A short straw takes less effort to pull liquid into the mouth. A wider straw requires less lip strength for pulling liquids into the mouth and fluid flows at a slower rate. If drinking a thicker liquid, a wider straw can be helpful to more easily move fluid upward and into the mouth. Experiment with different lengths and sizes (diameters) of straws to find the right fit for a child.

④ **Consistency is key.** Consistently offer a child many opportunities to practice using a straw at meals. The more a child practices straw drinking, the better she will become at it.

⑤ **Drink from a straw together.** Drink from a straw with a child during meals and across the day. This helps children learn how to use straws. Children also like doing what others are doing, so this is a great way to help them become more interested in and successful at straw drinking.

SOLID FOODS

By 12 months old, most children have been enjoying tastes of solid foods for several months. The reliance on liquids will slowly lessen with increased opportunities and interest in eating solid foods. By 12-24 months old, a child should already have had multiple experiences touching foods with his fingers and receiving them off of a spoon when fed by his caregivers. It is during this time that caregivers will shift their focus from spoon feeding children themselves, to encouraging more opportunities for children to take control of their own self-feeding.

Between 12-24 months old, children are most capable of eating:

TYPES OF FIRST FOODS	EXAMPLES
Smooth, whole foods →	○ Yogurt ○ Mashed potatoes ○ Avocados ○ Fruit purees such as applesauce
Soft, chopped (appropriately sized) table foods that easily fall apart in the mouth →	○ Biscuits ○ Cheese ○ Shredded chicken ○ Beans ○ Soft breads ○ Berries ○ Tender meats ○ Steamed or boiled vegetables
Crunchier, chewier solids and slightly harder fruits and vegetables →	○ Crackers ○ Cereals ○ Chips ○ Broccoli ○ Oranges

As children in this age range begin eating a wider variety of food textures, they also begin showing an increased interest in feeding themselves using their hands and utensils. Finger feeding and spoon feeding are highly encouraged with young children, as these experiences allow children the chance to explore foods and become comfortable with them prior to tasting and eating them. Below are simple tips for encouraging finger feeding and spoon feeding with children 12-24 months old.

Feeding is a sensory experience. Very often children will taste a food only after they have been given the opportunity to touch it first. Allowing children the chance to explore foods with their hands leads to greater comfort around foods and a stronger readiness to eat them.

A young girl feeds herself a tasty banana using her hands.

TIPS FOR ENCOURAGING FINGER FEEDING:

① **Offer lots of practice.** Allow lots of opportunities for finger feeding during every meal throughout each day.

② **Find a good position.** Help a child find a seated position that gives the most stability in their body for using their hands and fingers for feeding. Also, a good position will allow them access to a table and/or tray.

③ **Offer foods that suit the child and work well for finger feeding.** Choose finger foods wisely. Some foods work better as finger foods than others (pieces of cheese are easy; yogurt is hard). Offer foods in a variety of lengths, shapes, textures and weights to help a child gain more experience. Offer larger chunks of food to younger children because they are easier to grasp and hold. Offer smaller pieces of food to slightly older children because they are good for developing better fine motor (hand and finger) skills.

④ **Start small.** Offer a small amount of food at a time in order to not overwhelm a child.

⑤ **Expect a mess.** Crushing and crumbling finger foods (and getting messy) is normal for children in the beginning. Getting messy is part of the learning process.

⑥ **Consistency is key.** Consistently offer a child many opportunities to practice finger feeding at meals. The more a child practices, the better she will become at it.

⑦ **Eat together.** Eat finger foods with a child during meals and across the day. This helps children learn how to use their hands and fingers for eating and which foods are best for this task. Children also like doing what others are doing, so this is a great way to help them become more interested in and successful at finger feeding.

GOOD FIRST FINGER FOODS

- ⇒ *Ripe fruits*
- ⇒ *Cooked vegetable strips*
- ⇒ *Cheese strips or cubes*
- ⇒ *Crackers, cereals, toast, tortilla, rice, baby biscuits*
- ⇒ *Scrambled eggs*
- ⇒ *Meat slices*
- ⇒ *Fish, chicken*

Remember: When offering a child new foods and food experiences, always keep a careful eye on him to make sure he is safe at mealtimes. Avoid offering young children foods that are round shaped (for example, grapes, sausages, sliced hot dogs) because they can choke on them.

Learning to eat solid food is a skill that takes practice and time. On average, children will master eating solid foods by around 2-3 years old. This means that during the 12-24 month period, they will continue to need extra support from caregivers.

A girl practices feeding herself using a spoon.

TIPS FOR ENCOURAGING SPOON FEEDING:

① **Find a good position.** Help a child find a seated position that gives the most stability in her body for using her hands and fingers for feeding. Also, a good position will allow her access to a table and/or tray. Eat alongside a child as a way to teach her what it's like to eat from a spoon.

② **Offer lots of practice.** Allow lots of opportunities for spoon feeding during every meal throughout each day.

③ **Offer foods that suit the child and work well for spoon feeding.** Choose foods wisely. Some foods are easier to eat when first learning how to use a spoon. Offer foods that are easier to scoop onto a spoon and that will stick on the spoon and not fall off (thicker purees). Offer a spoon that suits the child. For example, young children typically do best with a smaller size spoon bowl that fits well inside their mouth. Choose a spoon with a shorter handle to make self-feeding easier for a child.

④ **Start small.** Offer a small amount of food at a time in order to not overwhelm a child.

⑤ **Make it stick.** Use a damp washcloth or a non-skid mat under the plate or bowl to make scooping with a spoon easier.

⑥ **Consistency is key.** Consistently offer a child many opportunities to practice using a spoon at meals. The more a child practices spoon feeding, the better he will become at it.

⑦ **Expect a mess.** Getting more food on their bodies and trays than in their mouths is normal for children just learning how to feed themselves with spoons. Getting messy is part of the learning process.

⑧ **Eat together.** Eat with a spoon alongside a child during meals and across the day. This helps children learn how to use spoons for eating. Children also like doing what others are doing, so this is a great way to help them become more interested in and successful at spoon feeding.

Children learn best by watching and doing. First, they watch others and then they try for themselves. Eating with caregivers is a beneficial way to support a child's learning process for feeding and mealtimes.

THE IMPORTANCE OF SPOON SIZE

Often children want to feed themselves, but the spoon they are given does not fit their growing needs.

Children (with and without disabilities) need spoons that:

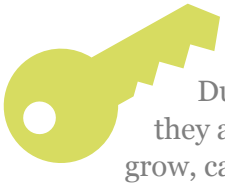
① fit their own smaller sized mouths.
② have a handle that is shorter to make aiming for their mouths easier.
③ are an appropriate weight to hold and lift repeatedly to their mouths.

This child is easily able to hold this lightweight maroon spoon and bring it to her mouth. It also has a smaller bowl that fits well inside her mouth and a shorter handle.

These children have adult-sized metal spoons. The bowl is very large and does not easily fit inside their small mouths. The handles are too long and make aiming for their mouths harder.

For more information on spoon feeding, refer to Chapter 1 and 2.

For more information on the anatomy of the spoon, refer to Appendix 9H.



KEY POINTS FOR THIS AGE

During this next year of life, children are rapidly developing in all areas, including what they are eating and drinking and how they are involved in these activities. As a child's skills grow, caregivers must be ready to change the types of foods offered, the ways a child eats and the levels of support they provide.

IMPORTANT POINTS TO REMEMBER:

① Even as a child grows older, every area of development remains connected. As a child's skills grow stronger, they are ready to take on more challenges such as different food textures, straw drinking and feeding themselves, etc.

② Caregivers must understand what is expected for children this age so they know when to offer new experiences, such as open cups, straws or new food textures, and when a child may need more time or support.

③ The same feeding supplies cannot always be used with every single child — we can't use a "one size fits all" approach.

④ When given ample opportunity and early on, children can quickly learn how to become more active participants in mealtimes.

SECTION 3.3: FEEDING POSITIONING FOR THE CHILD 12-24 MONTHS OLD

THE IMPORTANCE OF FEEDING POSITIONING

Proper positioning of a child during a feeding is very important. Certain positions can make feeding much easier for a child, and some positions can make it more challenging and even unsafe.

Good positioning has many benefits for children and caregivers such as:

- ✓ More timely feedings
- ✓ Increased success eating different types of foods
- ✓ Increased intake
- ✓ Increased success with self-feeding
- ✓ Increased enjoyment of eating and mealtimes
- ✓ Improved growth and nutrition
- ✓ Reduced occurrence of illness and death

✓ When positioning is good, children and caregivers are happier and feedings are a positive experience.

Poor positioning has many risks such as:

- ∅ Inefficient and longer mealtimes
- ∅ Reduced success accepting and managing different foods
- ∅ Reduced intake
- ∅ Reduced enjoyment of eating and mealtimes
- ∅ Increased difficulty with self-feeding
- ∅ Poor growth and nutrition
- ∅ Increased occurrence of illness and death

∅ When positioning is poor, feedings can be a stressful, negative experience for children and their caregivers.

This section discusses the best positions for feeding children 12-24 months old, how to create these positions and which children are best suited for each position.

This caregiver practices good positioning while feeding this young child.

KEY POINTS WHEN CHOOSING A FEEDING POSITION FOR A CHILD 12-24 MONTHS OLD:

- Is the child's head and neck well supported?
- Is the child's trunk (body) well supported?
- Is the child upright enough?
- Is the feeder/caregiver comfortable in this position?

Additionally, you may need to consider other individual needs of a child such as:

① *What is the size of the child?* A larger child may be more challenging to hold in certain positions.

② *How strong is the child*? A weaker child may need a position that offers more support, whereas a stronger child may need a position that requires less.

③ *Is the child trying to feed herself?* A child who is not feeding herself may be very capable when given appropriate supports and plenty of opportunities to practice.

④ *Does the child appear comfortable in the position?* An uncomfortable child is a child who won't eat well.

⑤ *Is the child feeding well in this position or is she fussy?* A fussy child is a child who won't eat well.

⑥ *Is the child coughing or choking often in this position*? A coughing or choking child is at risk for poor nutrition, illness and poor feedings.

EXAMPLES OF GOOD AND POOR POSITIONING FOR FEEDING THE CHILD 12-24 MONTHS OLD OF AGE (ON LAP)

GOOD POSITIONING

- Child is elevated with head higher than hips
- Head and neck are well supported by caregiver's arm and chest
- Head is in a neutral and forward position
- Child is tucked close to caregiver's body
- Arms and legs are tucked toward child's body
- Hips are slightly bent
- Spoon is offered in line with child's mouth

POOR POSITIONING

- Child's head and neck are not well supported
- Head and neck are extended too far back
- Hips are not flexed
- Back is arched
- Child looks uncomfortable
- Spoon is tilted too high to accommodate child's extended head

EXAMPLES OF GOOD AND POOR POSITIONING FOR FEEDING THE CHILD 12-24 MONTHS OLD (IN CHAIR)

GOOD POSITIONING

- Child is in well-supported chair and in upright position
- Head, neck, trunk and shoulders are well supported using chair
- Extra blankets and cushions used appropriately to support position
- Hips are flexed
- Knees are bent at 90-degree angle
- Feet are supported with foot rest
- Tray accessible for child
- Arms are free for touching foods and supported by tray

POOR POSITIONING

- Child is reclined and too far back from tray, making touching foods difficult
- Head, neck and shoulders are not well supported by chair
- Feet are hanging in the air without support
- Child is sliding down in chair
- Knees are straight and not bent

BEST POSITIONS FOR CUP DRINKING, FINGER FEEDING AND SPOON FEEDING

As children grow and develop, the position used for feeding may need to change. For example, a caregiver may have held a 12-month-old young child on her lap while feeding her. As the young child becomes a toddler, she will be able to sit in a chair at the table with older children for meals and begin feeding herself.

If the current position does not feel right to you or for the child, it's OK to try a different position (and chair). Sometimes caregivers must try multiple positions until they find the "just right fit."

Listed below are the most common positions used for feeding children 12-24 months old. Multiple positions may fit the needs of a single child but not all of these positions will work for every child.

UPRIGHT SEATED FORWARD POSITION (ON LAP OR ON FLOOR)

HOW TO: Place child in a well-supported position (1) seated upright on your lap, or (2) in a well-supported seated position on the floor. Child should be facing you while in your lap or on the floor.

BEST FOR: most children 12-24 months old; spoon feeding, cup drinking, straw drinking

ESPECIALLY GOOD FOR:

- children 12-18 months old who are fed by their caregivers

UPRIGHT SEATED FORWARD POSITION (IN CHILD SEAT/HIGH CHAIR)

HOW TO: Place child in a well-supported position in a child seat or high chair. Child should be facing you in the comfort of the seat. You should be holding the food, cup and/or spoon and/or the child can assist. Using a tray or table with a seat or chair is helpful for encouraging exploration of foods and self-feeding using fingers, utensils and cups.

BEST FOR: most children 12-24 months of age; spoon feeding, finger feeding, cup drinking, straw drinking

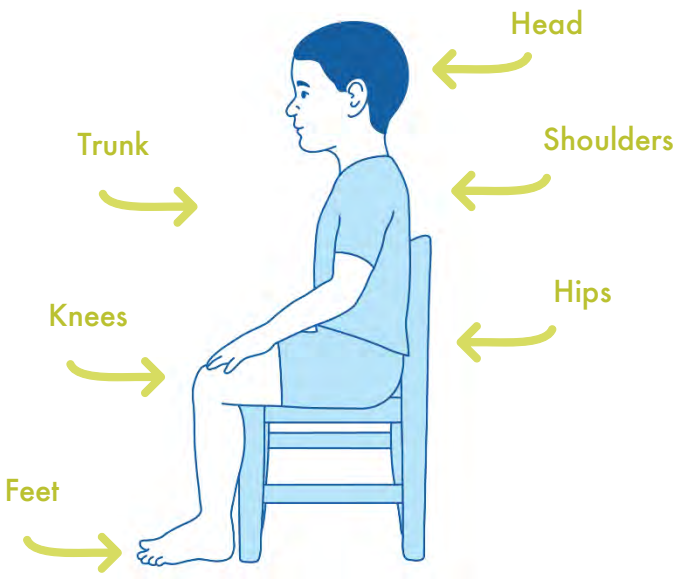
ESPECIALLY GOOD FOR:

- children 12-24 months old who are ready to begin learning to feed themselves
- children who are refusing to be fed by caregivers

FEEDING POSITIONING CHECKLIST FOR THE CHILD 12-24 MONTHS OLD

AT 12-24 MONTHS A CHILD'S:

- ☐ hips should be positioned at 90-degrees and lower than the head
- ☐ body (trunk) should be upright and well supported by caregiver's body or chair – not leaning forward, backward or to either side
- ☐ shoulders should be level and facing forward
- ☐ head is centered and in midline, neutral position with chin slightly tucked
- ☐ knees should be at a 90-degree angle
- ☐ feet flat on floor, foot rests or against caregiver's body



KEY POINTS FOR THIS AGE

As a child grows, mealtimes become a more complex and interactive process. Good positioning remains critical in the success a child has when eating. Good positioning also provides a child with more physical stability for becoming an effective self-feeder. Caregivers must be skilled in understanding the essential aspects of appropriate positioning for mealtimes so that children are fed safely and comfortably and also offered time to grow skills and independence at meals.

IMPORTANT POINTS TO REMEMBER:

① Good feeding positioning leads to safety while eating, improved skills for eating and increased capacity for self-feeding.

② Caregivers must always consider the key aspects of positioning and a child's individual needs in order to choose the best position for mealtimes.

SECTION 3.4: BEYOND THE MEAL: TIPS FOR SUPPORTING THE CHILD 12-24 MONTHS OLD

The second year of life continues to be an important time for a child. Children are learning so much about themselves and the world around them through their everyday experiences and relationships with their caregivers. And because they are wiser and stronger, they can do so much more! This section shares simple ideas to encourage healthy development across all areas of a child's second year of life – beyond the feedings.

By incorporating these ideas for a child during everyday activities and routines, caregivers can support a child's development in an efficient way that requires very little extra time. Try adding these ideas into mealtimes, dressing/undressing routines, during diaper changes, bath time, when offering comfort and when providing care for multiple children at a time. For example, while feeding one child, another child is enjoying playtime on the floor near her caregiver and

MOTOR MOVEMENTS

When a child is able to move her body and explore the world, she is growing her body and her brain. Additionally, supporting a child's movement directly supports feedings. Strong children with good motor skills typically have fewer issues with feedings, or issues are resolved sooner.

MOTOR (PHYSICAL) ACTIVITIES	DESCRIPTION (WHAT IT LOOKS LIKE)
Big Movement Play	⇒ Play house: Make play houses out of large boxes for children to explore and maneuver around. Cut holes in the sides for windows and doors. Have fun crawling in and out of the "house." ⇒ Play ball: Take turns throwing, rolling and kicking a ball back and forth. Have several children play together. ⇒ Push play: Offer children opportunities to push and pull big items to practice taking steps. Large toy cars and trucks, objects with wheels, push toys, boxes, laundry baskets and lightweight furniture (chairs) all work well. ⇒ Outside play: Encourage children to play with balls, practice going up and down stairs and ramps, climb playground equipment (if you have it) and have fun running and exploring.

	⇒**Wagon ride:** Encourage a child to fill a wagon with friends or other objects and then give them a ride by pulling or pushing. Laundry baskets or a box with a string/rope attached works, too. ⇒**Stair climbing:** Hold a child's hand while practicing walking up and down stairs. Walking up just a few stairs (one to three) is perfect. ⇒**Freedom to explore:** Offer lots of opportunities for children to freely explore their environments using big movement skills such as crawling, standing, walking, running, etc.
Movement and Music	⇒**Dance party:** Play music you enjoy and dance together. ⇒**Sing-along:** Sing songs, perform finger rhymes and move your bodies. ⇒**Make music:** Have fun making your own music (shaking and banging) using toy instruments or everyday items such as pots and pans.
Finger and Hand Play	⇒**Table time:** Use a small table, box or upside-down laundry basket as a table for children to use for playing (blocks, puzzles, etc.), eating and artwork (scribbling, painting, drawing, etc.). ⇒**Block time:** Have fun stacking blocks and then knocking them down. Larger blocks are easier to stack. ⇒**Basketball:** Toss items into a laundry basket, box, container or trash can as a game. Use objects such as soft balls, small pillows, bean bags, stuffed animals as the "ball." ⇒**Dump and fill:** Collect containers and have fun dumping and filling them with objects. Shoes boxes, cardboard boxes, Tupperware and buckets all work well. ⇒**Art time:** Have fun making designs and pictures using crayons, markers, chalk, pencils, paint or even water and dirt. Use fingers or brushes. ⇒**Big helpers:** Ask children to be helpers for daily activities such as dressing/undressing, washing hands and other clean-up activities.

These children enjoy lots of time outside for running, jumping, climbing and moving their bodies in different ways to build motor (muscle) skills and have fun.

PLAY AND LEARNING

Supporting a child's early play and learning is something that can easily be done each and every day. The main way young children learn is through play. Therefore, when a child is able to play, explore objects, interact with others and discover his environment, it is helping him grow a strong brain that will serve him well as he becomes an adult.

PLAY AND LEARNING ACTIVITIES	DESCRIPTION (WHAT IT LOOKS LIKE)
Talking, Singing, Reading, and Learning	⇒ **Story time:** Have fun reading books together or telling your favorite stories. Share nursery rhymes or special traditional tales. ⇒ **Music time:** Listen to music and sing songs with a child. Have fun singing along to the songs that you know. ⇒ **Talking time:** Talk about what a child is doing, what you are doing and what you are doing together. Use words to name shapes, colors, numbers, letters, body parts, animals, foods, action words, feelings and other common everyday items and familiar people. ⇒ **Play time:** Have fun with pretend play. Take care of baby dolls together (feed them, burp them, put them to rest), have a tea party, pretend to cook dinner or imagine that you are all fun animals. ⇒ **Number time:** Use numbers throughout the day with a child. Count everything – the number or chairs in a room, children, shoes, balls, etc.
Playtime on Floor	⇒ **Play on the child's level:** Children this age enjoy playing on the floor with items such as containers, blocks, balls, stacking cups/toys, bubbles, pots and pans, play dishes, dolls, cars/trucks, big outdoor toys, books, puzzles, homemade Play-Doh and art activities.

These young children have fun playing games with each other and their caregivers during the day.

COMMUNICATION AND RELATIONSHIPS

Supporting a child's early communication and relationships is something that can easily be done each and every day and is a wonderful way to nurture relationships between caregivers and children. Positive relationships are the primary way to build strong children, despite hardships they may encounter. When caregivers are deeply connected to children, children feel safe, secure, and ready to learn and grow.

COMMUNICATION AND RELATIONSHIPS ACTIVITIES	DESCRIPTION (WHAT IT LOOKS LIKE)
Playtime on Floor	⇒Relate often: When together, talk, tell stories, read and sing or hum to a child. Make silly faces and sounds together. Share special rhymes or poems, look at pictures and play simple games such as peek-a-boo. Repeat a child's sounds, words and encourage talking back and forth with one another.
Calming and Soothing	⇒Teach regulation: When a child becomes upset, use the same movements and sounds repeatedly to soothe them such as rocking, swaying, bouncing, patting, massaging, singing, shushing, etc. ⇒Advance notice: Talk to a child ahead of time about new routines, events and people. ⇒Choice making: Offer a child two choices to help her cope with feelings and options. ("Do you want a book or blocks?") ⇒Share feelings: Help a child identify his emotions by talking about them. Give names for these emotions to help a child understand what they and others may be feeling.
Positive Interactions	⇒Connect often: Repeat the sounds and words that a child makes or her faces, such as smiling and sticking her tongue out. Take time to gaze at a child during activities such as diaper changes, feedings and bathing. Use touch to connect with a child, such as snuggles, hugs, massage, wearing, holding and carrying, etc.
Consistently Care	⇒Respond well: When a child becomes upset due to hunger, discomfort, sickness, pain, wanting attention, etc., respond to him consistently and in a timely manner with soothing words and/or touch and physical comfort.

This young boy enjoys one on one time with a special caregiver while playing outside together.

KEY POINTS FOR THIS AGE

Being a supportive caregiver means supporting children not just during mealtimes, but during all moments throughout the day. Every activity and routine throughout the child's day is an opportunity to enhance a child's life. These activities don't need to be complicated or done for hours at a time and anything can become a toy. Use convenient objects from your environment, and offer short, frequent moments throughout the day for activities. Since development is interconnected, often times multiple areas can be supported simultaneously through the incorporation of one simple activity.

IMPORTANT POINTS TO REMEMBER:

① All areas of a child's development are connected. Support in one area can positively impact another area. Furthermore, supporting the whole child will also support feeding development.

② Children this age are becoming more active and interested in people, objects and activities happening around them. It's the perfect time to encourage early skills such as self-feeding.

③ Children will reap the benefits when caregivers find small moments throughout the day to incorporate activities that support total development.

PART 2 | CHAPTER 4

THE TODDLER YEARS: 24-36 MONTHS OLD

"It is easier to build strong children than to repair broken men."

Frederick Douglas

SECTION 4.1: IMPORTANT DEVELOPMENTAL MILESTONES FOR FEEDING: 24-36 MONTHS OLD

THE IMPORTANCE OF DEVELOPMENTAL MILESTONES

During the third year of life (from 24-36 months old) children continue to show steady growth in their development as well as mastery of many skills. During this age range, children will often be referred to as "toddlers." They are showing increasing physical strength and stability in their bodies, expressing themselves using more words and lengthier phrases, feeling security and comfort in their primary relationships, interacting more with friends, problem-solving dilemmas, playing in more robust ways and enjoying doing many tasks all on their own. Because all areas of development are linked and influenced by one another, it is important to view a child's development holistically. When working to support children 24-36 months old who may need extra help with feeding, it is critical to consider all areas of development.

For more information about each developmental domain, refer to the Introduction.

EXAMPLE OF A HOLISTIC VIEW OF FEEDING (24-36 MONTHS OLD):

DEVELOPMENTAL AREA	DEVELOPMENTAL MILESTONES (SKILLS)
 Adaptive	Child receives good rest at night and daily naps.
 Motor | Communication | Cognitive	Child sits in her mealtime chair and uses words to let her caregiver know she is hungry.
 Social-Emotional | Communication | Vision	Child smiles and cheers with excitement when she sees her caregiver coming to her chair with food.
 Social-Emotional | Communication | Hearing	Child responds to her caregiver's questions during meals ("Do you want more?" "Would you like more water?") using words and gestures.

Adaptive | Motor | Cognitive | Social-Emotional| Communication	Child insists on feeding herself using her hands and a spoon and says "I did it!" when she is successful.
Communication | Cognitive | Social-Emotional	Child helps wash her hands and face and she cleans up her spot after mealtimes with support.

Feeding is a complex process and all areas of development are involved. Even when just one area is not working well, it can create challenges for a child and her caregivers. Therefore, it is critical to look at children broadly in all areas to understand their abilities and needs. By understanding these basic milestones of development (also known as "skills") and how they work together, caregivers can become experts at knowing when development is going well and when there may be a problem. Additionally, because skills are interconnected, it's a great reminder that there are always opportunities to support every area of development during simple, everyday activities such as mealtimes.

The earlier challenges can be identified, the sooner support can be provided, resulting in happier and healthier children and caregivers.

Remember: Development is a process and there is a large range of times when babies and children gain skills. Caregivers should become familiar with these milestones to best meet the needs of the children they serve.

Toddlers enjoy outside activities together. Play is how children learn and develop strong bodies and minds.

COMMON DEVELOPMENTAL SKILLS[23,24,26]

CHILDREN 24-30 MONTHS OLD

Adaptive: 	⇒ Drinks from a cup and straw with greater ease ⇒ Feeds self using fingers and utensils with greater ease ⇒ Washes hands and face with support ⇒ Eats most all table foods with mastery – but may show strong preferences for certain foods
Communication: 	⇒ Responds to simple questions ⇒ Understands different sizes (“big” and “little”) ⇒ Asks for help with personal needs using words ⇒ Puts more words together to say phrases (“I want ____,” “More water, please”)
Fine and Gross Motor: 	⇒ Throws a ball with some accuracy ⇒ Catches a ball by trapping it against his chest ⇒ Walks and runs longer distances without support ⇒ Creeps backward down steps without support
Cognitive: 	⇒ Matches objects to corresponding pictures ⇒ Tells own age ⇒ Completes play involving multiple steps such as feed the doll, burp the doll, put the doll to bed, etc. ⇒ Understands the concepts of “one,” “one more” and “all”
Social-Emotional: 	⇒ Claims certain objects as being her own (“mine”) ⇒ Notices when others are sad, upset or happy ⇒ Avoids common dangers such as fire, knives, stoves, etc. ⇒ Takes turns occasionally when provided support
Vision: 	⇒ Tries to imitate drawing lines and circles ⇒ Scans an array of pictures ⇒ Watches and repeats actions of other children ⇒ Recognizes familiar adults in pictures
Hearing: 	⇒ Distinguishes differences in speech sounds with greater ease ⇒ Repeats words and lengthier phrases often ⇒ Uses more speech sounds correctly in words ⇒ Responds to more complex directions with greater ease

COMMON DEVELOPMENTAL SKILLS[23,24,26]

CHILDREN 30-36 MONTHS OLD

Adaptive: 	⇒ Drinks from a cup and from a straw with mastery ⇒ Feeds self using fingers and utensils with mastery ⇒ Washes hands and face without support ⇒ Cleans up spills and messes with support
Communication: 	⇒ Responds to multistep directions ⇒ Identifies objects by function (you eat with a ___, you drink from a ___) ⇒ Relates personal experiences through words ⇒ Uses phrases of two or more words
Fine and Gross Motor: 	⇒ Cuts paper with scissors ⇒ Uses hand to hold paper in place when drawing ⇒ Walks backward at least 10 feet ⇒ Walks up and down stairs with support from a rail, wall or person
Cognitive: 	⇒ Matches objects by color, size and shape ⇒ Counts to at least five ⇒ Puts graduated sized objects in order such as stacking rings or cups ⇒ States gender (boy or girl)
Social-Emotional: 	⇒ Transitions between activities with greater ease and less support ⇒ Shows affection toward other children ⇒ Participates in small groups with greater ease ⇒ Shows a growing independence with refusal of help from others
Vision: 	⇒ Matches objects to pictures ⇒ Matches big and little objects ⇒ Sorts at least four colors ⇒ Finds tiny details in picture books
Hearing: 	⇒ Distinguishes differences in speech sounds with greater ease ⇒ Repeats words and lengthier phrases often ⇒ Uses more speech sounds correctly in words ⇒ Responds to more complex directions with greater ease

SECTION 4.2: BASIC FEEDING GUIDELINES FOR THE CHILD 24-36 MONTHS OLD

TYPICAL FEEDING DEVELOPMENT

A child's feeding skills are directly related to her entire body's movement and overall development. The "hips and the lips" are connected. How a child holds her body upright in a chair, picks up small pieces of food using her fingers, feeds herself bites of food from a utensil, expresses her daily needs using words and responds to directions and questions from caregivers when preparing for meals are all examples of how the entire body is connected when a child eats. Therefore, if there is a problem in even one area of development, there is a chance feeding development may be disrupted.

When feeding development is going well, a typical progression of skills for a child 24-36 months old can look like this:

AGE IN MONTHS	TYPICAL FEEDING SKILLS AND DEVELOPMENT
24-30 Months	○ Holding and drinking from a cup with minimal loss of liquid ○ Drinking from a straw with minimal support ○ Using fingers and utensils to feed self with minimal support ○ Eating a variety of food textures with minimal support ○ Chewing foods in a mature manner ○ Taking appropriate amounts of foods/liquids during meals
30-36 Months	○ Drinking from a cup with no loss of liquid and without support ○ Drinking from a straw without support ○ Using fingers and utensils to feed self without support ○ Eating most food textures without support ○ Showing mastery of all oral-motor skills for eating and drinking

At this age, children are primarily relying on whole foods for their daily nutrition, and they are expanding the types of foods they are able to eat. Additionally, children continue to take an even larger role in feedings themselves using fingers, cups, straws and utensils. By around 2 years old (24 months), most children have the oral-motor skills necessary to handle all types of solid foods. That's a lot of change in a very short period of time. In order for children to successfully make these transitions, it's essential that caregivers have a general idea of what to expect from children. Also, it's helpful to understand typical development so that caregivers can introduce each transition, such as different textured foods, cup drinking, spoon feeding and straw drinking, in a timely manner to assist children with appropriately advancing their skills.

In the following sections, we will share the different ways to feed children 24-36 months old using cups, straws and utensils.

A group of toddlers sit around a table eating lunch. Eating together helps children learn valuable skills for feeding and healthy relationships.

For more information on types of cups, straws and spoons, refer to Chapter 1 and Appendix 9G.

CUP DRINKING

By 24-36 months old, most children should already be drinking from cups. Typically, by 24 months old, a child should show mastery of cup drinking and be able to manage an open cup, sippy cup and a straw. It is during this time of 24-36 months old that caregivers will continue to support a child's comfort and confidence drinking liquids from cups on a daily basis. If cup drinking opportunities are postponed (after 12 months old) or if a child is provided with limited opportunities to practice, it can make the process of cup drinking much more difficult as well as impact oral-motor skill development.

For more information on cup drinking, refer to Chapters 1, 2 and 3.

STRAW DRINKING[30]

By 24-36 months old, most children have the capacity to successfully drink from a straw. Children can learn to drink from a straw as early as 9-12 months old. Successful straw drinking is largely based on a child's experience. If a child has many opportunities to practice drinking from a straw, he can easily master this skill at a young age. It is during this time of 24-36 months, that caregivers will continue to support a child's comfort and confidence using straws on a regular basis. If a child is provided with limited opportunities to practice straw drinking, it can make the process of drinking from a straw more difficult later on in the child's life.

For more information on straw drinking, refer to Chapters 1, 3 and 9.

SOLID FOODS

By 24-36 months old, most children should be eating a balanced diet of solid, whole foods. Additionally, they are eating these foods often each day, and they are using their fingers and utensils to feed themselves during meals.

Learning to eat solid foods takes practice. On average, children will master eating solid foods by around 2-3 years old. This means that over time during the 24-36 month period, they will need a decreasing amount of support with the feeding process.

GROWING INDEPENDENCE

As children in this age range are now regularly eating a wider variety of food textures and larger amounts of food at meals, they also show a strong desire to feed themselves using their hands and utensils. Finger feeding and spoon feeding are highly encouraged with young children, as these experiences allow them the chance to explore foods and become comfortable with them prior to tasting and eating them. Don't forget to also provide opportunities for cup drinking.

PICKY EATING[7]

Children 24-36 months old often show increasingly strong food preferences during mealtimes. This is because between 2-3 years old, children have a huge burst in their cognitive (brain) growth, which makes trying new foods stressful and more challenging for their bodies. This can also make mealtimes more difficult for caregivers. Often, children will refuse to try new foods, they will refuse to eat familiar foods that they have previously enjoyed and they will request or want to eat the same foods for long stretches of time. Children this age do have the skills to eat a wide range of food textures; however, they are more selective in their tastes due to their developing brains.

Feeding is a sensory experience. Very often children will taste a food only after they have been given the opportunity to touch it first. Allowing children the chance to explore foods with their hands leads to greater comfort around foods and a stronger readiness to eat them.

Remember: If solid food opportunities are postponed (beyond 6 months) or if a child is provided with few opportunities to practice eating foods and feeding themselves, it can make the process of eating much more difficult as well as impact oral-motor skill development.

It's important to remember that picky eating is a phase, and most children will move out of it.

TIPS FOR WORKING WITH PICKY EATERS

① Offer exploration and often. Allow children the opportunity to explore foods (new and familiar) with their hands and utensils. Offer lots of opportunities for food exploration throughout each day. The more a child can touch, smell, see, and experience a food, the more comfortable she will become with tasting it!

② Encourage food interaction. Allow children the opportunity to feed themselves. When children feel more in control at mealtimes, they are more open to eating foods. Also, offer children the chance to serve themselves food at meals. When children are able to interact with food in different ways (including serving it to themselves), they become more familiar with foods and more open to eventually eating them.

③ Slow, small and familiar. Offer small amounts of new foods at a time to avoid overwhelming a child. More food can be provided once the first serving is finished. Offer new foods alongside familiar foods the child already enjoys. This reduces stress by letting a child see how they have options, including something they're accustomed to.

④ Consistency and frequency are key. Consistently offer a child many opportunities to become comfortable with foods at meals. Offer new foods often. When children are able to experience unfamiliar foods often, it reduces their stress and increases their interest and comfort for eating them. Just because a child refuses a food once or twice, does not mean that they don't like it.

⑤ Eat together. Eat alongside a child. Children like doing what others are doing, so this is a great way to let them know that foods are safe and nourishing. Allow children the opportunity to eat alongside peers. At this age children learn a great deal from their peers. This means that group mealtimes are a wonderful chance for children to expand what they will eat just by watching their friends.

⑥ Learn outside of a mealtime. Have fun experiencing foods in ways other than eating. Look at pictures of foods, play with pretend food, and talk about foods you see in your environment, such as at the local market or in the kitchen.

Children this age must often be exposed to a food 20 or more times before deciding to eat it, so eating new foods can take time and patience.

Remember: If a child is showing very strong preferences, they are eating very little at meals and this is happening over a prolonged period of time without improvement, caregivers should consider a referral to a specialist to determine if something bigger is going on. Some diagnoses are more prone to extreme picky eating (also known as "problem eating") such as autism spectrum disorders and children with sensitive sensory systems.

SIGNS OF PROBLEM FEEDING (EXTREME PICKY EATING)

⇒ Child eats less than four different foods or shows a steady reduction in types of foods he will eat

⇒ Child shows strong preferences for certain types of foods (only crunchy foods, only warm foods, only orange-colored foods, only sweet foods, only one brand of food, etc.)

⇒ Child shows extreme upset when offered certain foods, especially new foods

⇒ Child shows strong preferences for eating foods in certain ways (same cup/bowl, foods must be separated and cannot touch, whole and not cut, etc.)

For more information on solid foods, refer to Chapters 1, 2 and 3.

For more information on the anatomy of the spoon, refer to Appendix 9H.

KEY POINTS FOR THIS AGE

During this exciting time of life, children continue to show big bursts in development, including the types of foods they are capable of eating, and the ways in which they are wanting to actively participate in the mealtime process. As a child's skills continue to mature, caregivers play a large role in supporting a child's interest in enjoying a wider variety of foods and in their advancement of self-feeding skills.

IMPORTANT POINTS TO REMEMBER:

① Children this age enjoy being more independent, including feeding themselves. Providing children with lots of opportunities to practice feeding themselves makes them better eaters and helps them feel more confident.

② Caregivers should expect that children this age, when given ample opportunity, are capable of completing challenging eating experiences such as chewing more textured foods, using straws and drinking from cups with little to no support.

③ Picky eating is very common during this age. Most children will grow out of this, but if they do not, caregivers can offer support by encouraging mealtimes that offer lots of time for children to explore food safely and on their own terms.

④ When given opportunity, support and time, most children will grow to have a diverse diet consisting of a variety of nutritious food flavors and textures.

SECTION 4.3: FEEDING POSITIONING FOR THE CHILD 24-36 MONTHS OLD

THE IMPORTANCE OF FEEDING POSITIONING

The way we position a child during a feeding is very important. Certain positions can make eating and self-feeding much easier for a child, and some positions can make it more challenging and even unsafe.

Good positioning has many benefits for children and caregivers such as:

- ✓ More timely feedings
- ✓ Increased success eating different types of foods
- ✓ Increased intake
- ✓ Increased success with self-feeding
- ✓ Improved growth and nutrition
- ✓ A reduced occurrence of illness and death

✓ When positioning is good, children and caregivers are happier and feedings are a positive experience.

Poor positioning has many risks such as:

- Ø Inefficient and longer mealtimes
- Ø Reduced success accepting and managing different foods
- Ø Reduced intake
- Ø Increased difficulty with self-feeding
- Ø Poor growth and nutrition
- Ø An increased occurrence of illness and death

Ø When positioning is poor, feedings can be a stressful, negative experience for children and their caregivers.

BENEFITS AND RISKS OF POSITIONING FOR FEEDING:

BENEFITS OF GOOD POSITIONING	RISKS OF POOR POSITIONING
↑ Efficiency of feedings	↓ Efficiency of feedings
↑ Capacity for successfully taking different textures of foods	↓ Capacity for successfully taking different textures
↑ Intake during feedings	↓ Intake during feedings
↑ Enjoyment of feedings	↓ Enjoyment of feedings
↑ Interest in and capacity for feeding themselves	↓ Interest in and capacity for feeding themselves
↑ Overall growth and nutrition	↓ Overall growth and nutrition
↓ Occurrence of aspiration, illness, death	↑ Occurrence of aspiration, illness, death

This caregiver practices good positioning while feeding this child who needs extra support.

KEY POINTS WHEN CHOOSING A FEEDING POSITION FOR THE CHILD 24-36 MONTHS OLD:

- Is the child's head and neck well supported?
- Is the child's trunk (body) well supported?
- Is the child upright enough?
- Does the child need extra support with making feedings slower?
- Is the feeder/caregiver comfortable in this position?

Additionally, other areas to consider include:

① *What is the size of the child*? A larger child may be more challenging to hold in certain positions. A smaller child may need extra physical supports for sitting upright in a chair such as cushions, pillows and an elevated foot rest.

② *How strong is the child?* A weaker child may need a position that offers more support, whereas a stronger child may need a position that requires less.

③ *Is the child trying to feed herself?* A child who is not feeding herself may be very capable when given appropriate supports and plenty of opportunities to practice.

④ *Does the child appear comfortable in the position?* An uncomfortable child won't eat as well.

⑤ *Is the child feeding well in this position or is she fussy?* A fussy child won't eat as well.

⑥ *Is the child coughing or choking often in this position?* A coughing or choking child is at risk for poor nutrition, illness and poor feedings.

EXAMPLES OF GOOD AND POOR POSITIONING FOR FEEDING THE CHILD 24-36 MONTHS OLD AGE (IN LAP/HELD BY CAREGIVER)

GOOD POSITIONING

- Child is elevated with head higher than hips
- Head and neck are well supported by caregiver's hand, arm, and chest
- Head is in a neutral and forward position
- Child is tucked close to caregiver's body
- Arms and legs are loose for participating in eating
- Hips are slightly bent
- Spoon is offered in line with child's mouth

POOR POSITIONING

- Child's head and neck are extended too far back
- Hips are not flexed
- Legs are tucked in and do not allow freedom for necessary bending and flexing
- Child looks uncomfortable
- Spoon is presented too high to accommodate child's extended head while also forcing him to extend his head more

Better positioning always leads to better and safer feeding for a child.

EXAMPLES OF GOOD AND POOR POSITIONING FOR FEEDING THE CHILD 24-36 MONTHS OLD (IN CHAIR)

GOOD POSITIONING

- Child is in well-supported chair and upright position
- Head, neck, trunk and shoulders are well supported using chair and tray
- Hips are flexed
- Knees are bent at 90-degree angle
- Feet are well supported on floor
- Tray is accessible for child and appropriate height for child's arms to rest on
- Arms are free for touching foods

POOR POSITIONING

- Child's head and neck are not well supported and they are extended too far back
- Hips are slightly flexed, but sliding down and forward in chair
- Back is slightly arched
- Knees are not bent at 90-degrees
- Feet are falling off of foot rest
- Arms are hanging without support, making touching foods difficult
- Child looks uncomfortable
- Spoon is tilted too high to accommodate child's extended head

BEST POSITIONS FOR CUP DRINKING, FINGER FEEDING AND SPOON FEEDING

As children grow and develop, the position they are fed in may need to change. For example, a 24-month-old child who is sitting in a well-supported high chair, will eventually move to sitting in a child's size chair with a matching table (with less support) as she shows strength and readiness for this transition.

If the current position does not feel right to you or for the child, it's OK to try a different position (and chairs, tables and trays). Sometimes caregivers must try multiple positions until they find the "just right fit."

Listed below are the most common positions used for feeding children 24-36 months old. Many different positions may fit the needs of a single child.

UPRIGHT SEATED FORWARD POSITION (ON LAP OR ON FLOOR)

HOW TO: Place child in a well-supported position (1) seated upright in your lap, or (2) on the floor. Child should be facing you while in your lap or on the floor. Using a tray or table can be helpful for encouraging exploration of foods and self-feeding using fingers, utensils and cups.

BEST FOR: Most children 24-36 months old; spoon feeding, finger feeding, cup drinking, straw drinking.

UPRIGHT SEATED FORWARD POSITION (IN CHILD SEAT/HIGH CHAIR)

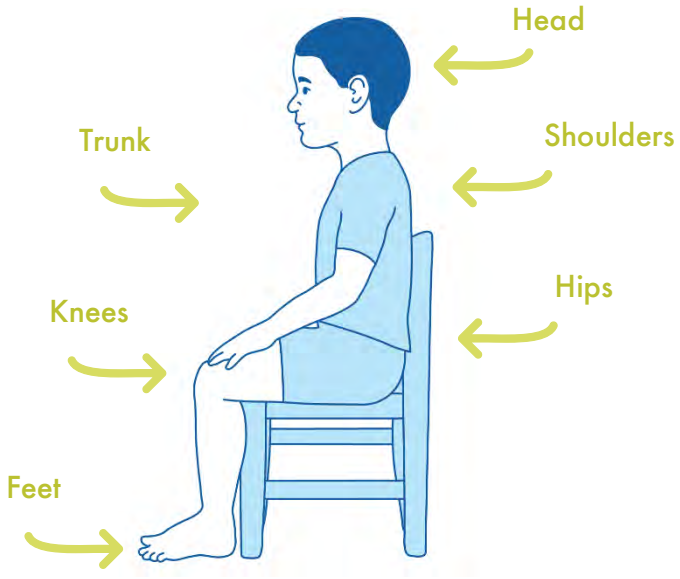
HOW TO: Place child in a well-supported position in a child seat or high chair. Child should be facing you and/or peers while seated. You can hold the food, cup and/or spoon, and the child should also be given the opportunity to assist with feeding. Using a tray or table with a seat or chair is helpful for encouraging exploration of foods and self-feeding using fingers, utensils and cups.

BEST FOR: Most children 24-36 months old; spoon feeding, finger feeding, cup drinking, straw drinking.

FEEDING POSITIONING CHECKLIST FOR THE CHILD 24-36 MONTHS OLD

AT 24-36 MONTHS A CHILD'S:

- ☐ hips should be positioned at 90-degrees and lower than the head
- ☐ body (trunk) should be upright and well supported by caregiver's body or chair – not leaning forward, backward or to either side
- ☐ shoulders should be level and facing forward
- ☐ head is centered and in midline, neutral position with chin slightly tucked
- ☐ knees should be at a 90-degree angle
- ☐ feet flat on floor, foot rests or against caregiver's body



KEY POINTS FOR THIS AGE

During this age range, mealtimes become a more interactive process for children and caregivers with its own set of challenges, such as picky eating. As children grow older, they begin taking on more responsibilities during mealtimes, such as feeding themselves. They also can become temporarily more selective in the foods they are open to eating. Good positioning remains critical in the success a child has when eating. For mealtimes to be a safe, comfortable time where children can grow their self-feeding skills, they must be positioned properly. Caregivers play a key role in their success.

IMPORTANT POINTS TO REMEMBER:

① Good feeding positioning leads to safer eaters, improved oral motor skills for eating and increased confidence and capacity for self-feeding.

② Caregivers must always consider a child's individual needs in order to choose the best position for mealtimes even as a child grows bigger, stronger and more independent.

③ By 24-36 months old, when provided appropriate positioning and practice, children will become skilled self-feeders.

SECTION 4.4: BEYOND THE MEAL: TIPS FOR SUPPORTING THE CHILD 24-36 MONTHS OLD

Children are continuing to learn so much about themselves and the world around them through their everyday experiences and relationships with their caregivers. They are wiser and stronger, more curious and determined to do so much all by themselves. In this section, we will share simple ideas to encourage healthy development across all areas of a child's third year of life — beyond the feedings.

By incorporating these ideas for a child during everyday activities and routines, caregivers can support a child's development in an efficient way that requires very little extra time. Try adding these ideas into mealtimes, dressing/undressing routines, during diaper changes, bath time, when offering comfort and when providing care for multiple children at a time.

For example, when feeding one child, another child can be enjoying playtime on the floor near her caregiver and peer

MOTOR MOVEMENTS

Supporting a child's motor development is something that can easily be done each and every day. When a child is able to move her body and explore the world, she is helping both her body and brain to grow. Additionally, supporting a child's movement directly supports feedings. Strong children with good motor skills typically have fewer issues with feedings and any issues are resolved sooner.

MOTOR (PHYSICAL) ACTIVITIES	DESCRIPTION (WHAT IT LOOKS LIKE)
Big Movement Play	⇒ Play house: Make play houses out of large boxes for children to explore and maneuver around. Cut holes in the sides for windows and doors. Have fun crawling in and out of the "house." ⇒ Play ball: Take turns throwing, rolling, kicking and catching a ball back and forth. Have several children play together. ⇒ Soccer play: Turn a box on its side and pretend it's a soccer goal. Have fun kicking a ball into the goal. ⇒ Balloon play: Kick, toss and punch a balloon in the air around a room among several children. ⇒ Kangaroo hop: Place an object on the floor as the "starting line." Encourage children to hop as far as they can from the starting line. ⇒ Outside play: Encourage children to play with balls, practice going up and down stairs and ramps, climb playground equipment (if you have it) and have fun running, jumping and exploring.

	⇒ **Wagon ride:** Encourage a child to fill a wagon with friends or other objects and then give rides by pulling or pushing. Laundry baskets or a box with a string/rope attached works, too. ⇒ **Stair climbing:** Hold a child's hand while practicing walking up and down stairs. ⇒ **Freedom to explore:** Offer lots of opportunities for children to freely explore their environments using big movements such as crawling, standing, walking, running, jumping, etc.
Movement and Music	⇒ **Dance party:** Play music you enjoy and dance together. ⇒ **Sing-along:** Sing songs, perform finger rhymes and move your bodies. ⇒ **Make music:** Have fun making your own music (shaking and banging) using toy instruments or everyday items such as pots and pans.
Finger and Hand Play	⇒ **Pouring play:** Practice pouring different items from cup to cup or pitcher to cup. Items to pour: rice, dried beans, sand, water, popcorn seeds, rocks, etc. ⇒ **Table time:** Use a small table, box, or upside-down laundry basket with chairs for playing (blocks, puzzles, etc.), eating and artwork (scribbling, painting, drawing, cutting, folding). ⇒ **Block time:** Have fun stacking blocks and then knocking them down. Larger blocks are easier to stack. ⇒ **Basketball:** Toss items into a laundry basket or trashcan as a game. Objects: soft balls, small pillows, bean bags, stuffed animals, etc. ⇒ **Dump and fill:** Collect containers and have fun dumping and filling them with objects. Shoes boxes, cardboard boxes, Tupperware and buckets all work well. ⇒ **Art time:** Have fun making designs and pictures using crayons, markers, chalk, pencils, paint or even water and dirt. Use fingers or brushes. ⇒ **Big helpers:** Ask children to be helpers for daily activities such as dressing/undressing, washing hands and other cleanup activities.

Children gather to play ball outside. Time for movement such as running, jumping and climbing is very important for every child.

PLAY AND LEARNING

Supporting a child's early play and learning is something that can easily be done each and every day. In fact, the main way children learn is through play. When a child is able to play, explore objects, interact with others and discover his environment, it is helping him grow a strong brain that will serve him well as he becomes an adult.

PLAY AND LEARNING ACTIVITIES	DESCRIPTION (WHAT IT LOOKS LIKE)
Talking, Singing, Reading and Learning	⇒ **Story time:** Have fun reading books together or telling your favorite stories. Share nursery rhymes or traditional tales. Ask for help turning pages, pointing out pictures, answering questions ("What happens next?") and telling the story. ⇒ **Music time:** Listen to music and sing songs with a child. Have fun singing along to the songs that you know. ⇒ **Talking time:** Talk about what a child is doing, what you are doing and what you are doing together. Use words and phrases to describe shapes, colors, numbers, letters, body parts, animals, foods, action words, feelings and other common everyday items and familiar people. ⇒ **Playtime:** Have fun with pretend play. Play with dolls, have a tea party, pretend to cook dinner, play "house" or imagine that you are all fun animals. ⇒ **Dress-up time:** Have a dress-up box with different types of clothing and accessories for children to explore such as dresses, shirts, pants, shoes, hats, scarves, gloves, belts, etc. ⇒ **Number time:** Use numbers throughout the day with a child. Count everything – the number or chairs in a room, children, shoes, balls, dolls, blocks, etc. ⇒ **Sorting time:** Sort everyday objects by color, shape, size, type, etc. Have fun sorting in piles or containers for dumping and filling.
Playtime on Floor	⇒ **Play where the child is at – on his level– and follow his lead.** Let a child guide their play with you. Children this age enjoy playing with containers, blocks, balls, pots and pans, play food and dishes, dolls, cars/trucks, big outdoor toys, books, puzzles, homemade play-doh or clay, art activities, musical instruments, plastic animals and dinosaurs, hula hoops, trampoline with handles, ball pits, flashlights, forts, tents, etc.

A young girl enjoys singing and dancing outside. She is learning through play.

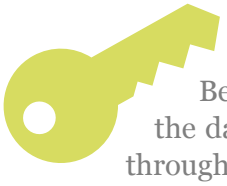
COMMUNICATION AND RELATIONSHIPS

Supporting a child's early communication and relationships is something that can easily be done each and every day. Positive relationships are the primary way to build strong children, despite hardships they may encounter. Further, supporting a child's communication is a wonderful way to nurture relationships between caregivers and children. When caregivers are deeply connected to children and showing how they understand what a child is expressing, children feel safe, secure and ready to learn and grow.

COMMUNICATION AND RELATIONSHIPS ACTIVITIES	DESCRIPTION (WHAT IT LOOKS LIKE)
Play and Interactions	⇒ **Relate often:** When together, talk, tell stories, read and sing or hum to a child. Make silly faces and sounds together. Share special rhymes or poems, look at pictures and play simple games such as "chase," "hide-and-seek," or "Simon Says." Repeat a child's words and encourage back and forth conversations with one another.
Calming and Soothing	⇒ **Teach regulation:** During moments when a child becomes upset, use the same movements or sounds repeatedly to soothe him such as rocking, swaying, bouncing, patting, massaging, singing, shushing, jumping or music. ⇒ **Heads-up:** Talk to a child ahead of time about new routines, events, new foods and people. Use picture schedules to alert children to what is happening next. ⇒ **Choice making:** Offer a child two choices to help cope with feelings and options ("Do you want a book or blocks?").

	⇒ **Share feelings:** Help a child identify emotions by talking about them. Give names for feelings to help a child understand.
Positive Interactions	⇒ **Connect often:** Repeat the words and phrases that a child says or faces a child makes, such as smiling. Take time to gaze at a child during activities such as diaper changes, feedings, playtime and bathing. Use touch to connect, such as snuggles, hugs, massage, wrestling/rough play, wearing, holding, carrying, etc. ⇒ **Sharing is caring:** Teach children how to share and take turns by doing these with them during play and when interacting with others. Use simple phrases repeatedly to help teach these concepts ("My turn," "Your turn," "Can I have a turn?" "In 1 minute.").
Consistently Care	⇒ **Respond well:** When a child expresses they're upset, respond consistently and in a timely manner with soothing words and/or touch and physical comfort.

A group of toddlers sit together in a classroom for an activity. They are learning from their caregivers and also from each other.



KEY POINTS FOR THIS AGE

Being a supportive caregiver means supporting children during all moments throughout the day, including those activities that extend beyond mealtimes. Every activity and routine throughout a child's day is an opportunity to enhance development and quality of life. These activities don't need to be complicated or done for hours at a time. Use convenient objects from your environment, and offer short, frequent moments throughout the day for activities. Since development is interconnected, often times multiple areas can be supported simultaneously through the incorporation of one simple activity.

IMPORTANT POINTS TO REMEMBER:

① Children learn best through meaningful experiences and interactions that occur every day. Caregivers must offer a wide variety of activities for each child so that they do not just survive, but they thrive.

② When caregivers support a child's entire development by encouraging play, movement and positive interactions with others, they will also be supporting a child's feeding development.

③ Children will reap the benefits when caregivers find small moments throughout the day to incorporate activities that support total development.

PART 2 | CHAPTER 5

THE OLDER CHILD: 36 MONTHS AND OLDER

"It takes a village to raise a child."

African proverb

SECTION 5.1: IMPORTANT DEVELOPMENTAL MILESTONES FOR FEEDING: 36 MONTHS AND OLDER

THE IMPORTANCE OF DEVELOPMENTAL MILESTONES

From 36 months and older, children continue to make strides across all areas of development. During this age range, children are showing increasing physical strength, mobility, agility and coordination in their bodies. They are expressing themselves using more complex sentences, which are based on more complex feelings and thoughts. Older children in this age range demonstrate robust relationships, finding a greater interest in making friends and playing together. In addition, they continue to enjoy doing many daily activities such as washing their hands and feeding themselves all on their own. Because all areas of development are connected and influenced by one another, it is important to view a child's development holistically. When working to support children 36 months and older who may need extra help with feeding, it is critical to consider all areas of development.

For more information about each developmental domain, refer to the Introduction.

EXAMPLE OF A HOLISTIC VIEW OF FEEDING:

DEVELOPMENTAL AREA	DEVELOPMENTAL MILESTONES (SKILLS)
Adaptive	Child receives good rest at night and may or may not take a nap.
Motor | Communication | Cognitive | Adaptive	Child washes her hands after being told that it's "time for lunch."
Social-Emotional | Vision	Child shows delight when she sees the food being brought to the table.
Social-Emotional | Communication | Hearing	Child responds to her caregiver's questions during meals ("Do you want more rice or chicken?") using spoken words.

Adaptive | Motor | Cognitive | Social-Emotional	Child insists on feeding herself using her hands and a spoon and says "I did it!" when she is successful.
Communication | Cognitive | Social-Emotional	Child helps wash her hands and face and she cleans up her spot after mealtimes.

Feeding is a complex process and all areas of development are involved. Even when just one area is not working well, it can create challenges for a child and her caregivers. Therefore, it is critical to look at children broadly in all areas to understand their abilities and their needs. By understanding these basic milestones of development (also known as "skills") and how they work together, caregivers can become experts at knowing when development is going well and when there may be a problem. Additionally, because skills are interconnected, it's a great reminder that there are always opportunities to support every area of development during simple, everyday activities such as mealtimes.

The earlier challenges can be identified, the sooner support can be provided, resulting in happier and healthier children and caregivers.

<u>Remember:</u> Development is a process and there is a large range of times when babies and children gain skills. Caregivers should become familiar with these milestones to best meet the needs of the children they serve.

Friendship and play are essential for robust child development.

COMMON DEVELOPMENTAL SKILLS[23,24,26,31]

CHILDREN 36 MONTHS OF AGE AND OLDER:

Adaptive: 	⇒ Requests for food to be passed at a meal ⇒ Serves self at a meal ⇒ Puts away dirty dishes in a sink, bucket or dishwasher ⇒ Cleans up spills and messes at a meal
Communication: 	⇒ States full name ⇒ Answers questions when told a short story or idea ⇒ Uses facial expressions and body language to express emotions ⇒ Uses more complex sentences made up of multiple words
Fine and Gross Motor: 	⇒ Feeds self using utensils and drinks from an open cup ⇒ Hops and balances on one foot ⇒ Walks down stairs alternating feet
Cognitive: 	⇒ Understands "more" and "less" ⇒ Counts to at least 20 ⇒ Recounts familiar stories
Social-Emotional: 	⇒ Shares items (still may need support from time to time) ⇒ Returns objects to their appropriate locations ⇒ Shows pride in accomplishments ⇒ Shows empathy for others
Vision: 	⇒ Copies making different shapes ⇒ Identifies different colors ⇒ Recognizes letters/print and ready to begin reading
Hearing: 	⇒ Distinguishes differences in speech sounds ⇒ Repeats more complex words and lengthier sentences ⇒ Marks sounds at the beginning, middle and ends of words ⇒ Talks clearly so that others understand most of what is said

SECTION 5.2: BASIC FEEDING GUIDELINES FOR THE CHILD 36 MONTHS AND OLDER

TYPICAL FEEDING DEVELOPMENT

A child's feeding skills are directly related to her entire body's movement and overall development. The "hips and the lips" are connected. How a child holds her body upright in a chair, feeds herself using fingers and utensils, expresses her ideas using words and responds to directions from caregivers during a mealtime are all examples of how the entire body is connected when a child eats. Therefore, if there is a problem in even one area of development, there is a chance feeding development may be disrupted.

When feeding development is going well, a typical progression of skills for a child 36 months and older can look like this:

AGE IN MONTHS	TYPICAL FEEDING SKILLS AND DEVELOPMENT
36 Months and Older	○ Drinking from a variety of different cups without support ○ Drinking from a variety of different straws without support ○ Using fingers and utensils to feed self without support ○ Eating food textures without support ○ Washing hands and face before and after meals without support ○ Cleaning up dishes and area after meals with minimal to no support ○ Showing mastery of oral-motor skills for eating and drinking

By 36 months of age, most children have mastery of skills that allow them to be successful and independent eaters. They eat a diverse array of food flavors and textures. Additionally, children are now feeding themselves on their own during meals using fingers, cups, straws and utensils — while also creating less of a mess.

In order for children to successfully reach these exciting milestones, it's essential that caregivers have a general idea of what to expect from children during this age range, but also in the years that came before. It's helpful that caregivers have a solid understanding of all child development so that they can appropriately monitor and support the advancement of each child's skills.

In the following sections, we will share the different ways to feed children 36 months and older using cups, straws and utensils.

For more information on types of cups, straws, and spoons, refer to Chapter 1 and Appendix 9G

CUP DRINKING

By 36 months and older, most children should be successfully drinking from cups. Children should have experience and success drinking from a wide variety of cups: open cups, sippy cups and cups of varying shapes, sizes and weights. If cup drinking opportunities are postponed (after 12 months) or if a child is provided with limited opportunities to practice, it can make the process of cup drinking much more difficult as well as impact oral-motor skill development.

For more information on cup drinking, refer to Chapters 1, 2 and 3.

STRAW DRINKING[30]

By 36 months and older, most children should have had the opportunity to practice drinking from a straw. Additionally, it's valuable for children to have experience and success drinking from a wide variety of straws: short, long, narrow, thick. If straw drinking opportunities are postponed (after 12 months) or if a child is provided with limited opportunities to practice, it can make the process of drinking from a straw more difficult and limit oral-motor skill development.

For more information on straw drinking, refer to Chapters 1 and 3.

It is by this age that the role of the caregiver shifts to supporting a child's ongoing confidence and independent use of drinking liquids from cups and straws on a regular basis.

SOLID FOODS

By 36 months old, most children should be successfully eating a balanced diet of whole solid foods. They should have opportunities to eat solid foods each day, and they should be feeding themselves using fingers and utensils. If eating and self-feeding opportunities are postponed (after 6 months) or if a child is provided with limited opportunities to practice, it can make the processes of eating and self-feeding much more difficult as well as impact oral-motor and fine motor skill development.

On average, children will master eating solid foods by around 2-3 years old. This means that by 36 months old, children should have all of the oral-motor and fine motor skills to eat table foods.

GROWING INDEPENDENCE

As children in this age range are now regularly eating a wide variety of food textures and larger amounts of food at meals, they also show a strong desire to feed themselves using their hands and utensils. They are also becoming much better (and less messy) when doing so. Finger feeding and self-feeding using utensils continue to be highly encouraged with children 36 months and older, as these experiences provide them the chance to explore foods and become comfortable with them prior to tasting and eating them. Plus, when children are able to feed themselves on their own, they often eat more, giving them a sense of pride and accomplishment.

PICKY EATING[7]

Children 36 months and older may show tendencies for food pickiness; however, it is typically not as strong as what is seen from 24-36 months old. Another picky eating phase is sometimes seen between 7-8 years old. This happens because during this age children have a huge burst in their cognitive (brain) growth, which makes trying new foods stressful and more challenging for their bodies. For the most part, children 36 months and older are more open and accepting of new flavors and textures.

Children this age must often be exposed to a food 20-plus times before deciding to eat it. Therefore, eating new foods can take time and patience.

For more information on solid foods, refer to Chapters 1, 2 and 3.

For more information on supporting picky eating, refer to Chapter 4.

KEY POINTS FOR THIS AGE

From 36 months and older, children continue to display progress in all areas of development. They are now master eaters and independent self-feeders. Although children may not need as much support as they grow older, caregivers still play a vital role in offering care on a daily basis from showing a child how to eat a new food, to making them feel comfortable and proud while eating and cleaning up after themselves.

IMPORTANT POINTS TO REMEMBER:

① Even the development of the older child remains connected and skills are dependent on one another. Caregivers must continue to monitor the older child's skills to make sure they continue to stay on track.

② Caregivers should expect that children this age, when given ample opportunity, can typically eat all foods and feed themselves independently using a variety of methods such as fingers, utensils, cups and straws.

③ Giving children opportunities to feed themselves during mealtimes is important. This helps them reach mastery and gives them feelings of pride and accomplishment.

SECTION 5.3: FEEDING POSITIONING FOR THE CHILD 36 MONTHS AND OLDER

THE IMPORTANCE OF FEEDING POSITIONING

The way we position a child during a feeding is very important. Certain positions can make eating and self-feeding much easier for a child, and some positions can make it more challenging and even unsafe.

Good positioning has many benefits for children and caregivers such as:

- ✓ More timely feedings
- ✓ Increased success eating different types of foods
- ✓ Increased intake
- ✓ Increased success with self-feeding
- ✓ Improved growth and nutrition
- ✓ Reduced occurrence of illness and death
- ✓ Children and caregivers are happier and mealtimes become a positive experience

✓ When positioning is good, children and caregivers are happier and feedings are a positive experience.

Poor positioning has many risks such as:

- ∅ Inefficient and longer mealtimes
- ∅ Reduced success accepting and managing different foods
- ∅ Reduced intake
- ∅ Increased difficulty with self-feeding
- ∅ Poor growth and nutrition
- ∅ Increased occurrence of illness and death
- ∅ Mealtimes can become a stressful struggle for children and their caregivers

∅ When positioning is poor, feedings can be a stressful, negative experience for children and their caregivers.

Please refer to Chapter 2, Section 2.3 for a detailed chart of Benefits and Risks of Positioning for Feeding.

This section discusses the best positions for feeding children 36 months and older, how to create these positions and which children are best suited for each position.

KEY POINTS WHEN CHOOSING A FEEDING POSITION FOR THE CHILD 36 MONTHS AND OLDER:

- Is the child's head and neck well supported?
- Is the child's trunk (body) well supported?
- Is the child upright enough?
- Does the child need extra support with making feedings slower?
- Does the child need extra support for self-feeding?
- Is the feeder/caregiver comfortable in this position?

A caregiver works to provide proper positioning for two children during a lunch meal. These caregivers have learned that when children are in well-supported positions, they can feed themselves more successfully.

Additionally, you may need to consider other individual needs of a child such as:

① *What is the size of the child?* A larger child may be more challenging to hold in certain positions. A smaller child may need extra physical supports for sitting upright in a chair such as cushions, pillows and an elevated foot rest.

② *How strong is the child?* A weaker child may need a position that offers more support, whereas a stronger child may need a position that requires less.

③ *Is the child trying to feed herself?* A child who is not feeding herself may be very capable when given appropriate supports and plenty of opportunities to practice.

④ *Does the child appear comfortable in the position?* An uncomfortable child won't eat as well.

⑤ *Is the child feeding well in this position or is she fussy?* A fussy child won't eat as well.

⑥ *Is the child coughing or choking often in this position?* A coughing or choking child is at risk for poor nutrition, illness and poor feedings.

EXAMPLES OF GOOD AND POOR POSITIONING FOR FEEDING THE CHILD 36 MONTHS AND OLDER (IN CHAIR)

GOOD POSITIONING

- Child is seated upright in chair
- Head is in a forward position
- Knees are at 90-degrees
- Feet are well supported by a foot rest
- Tray is at an appropriate height for added positioning support and self-feeding

POOR POSITIONING

- Child is seated upright in chair
- Hips are slightly flexed
- Knees are at 90-degrees
- Feet are well supported BUT head and neck are extended up and back
- Torso is twisted
- No table or tray to support positioning and self-feeding

When a child's body feels well-supported, she can focus on what matters most: eating

BEST POSITIONS FOR EATING AND DRINKING

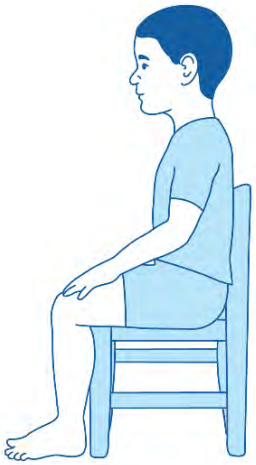
Listed below is the most common position used for feeding children 36 months and older. Also, as children grow larger and stronger, the chair/seat and table they are using will most likely need to change or be modified.

If the current position does not feel right to you or for the child, it's OK to try a different position (and chairs, tables, trays and cushions). Sometimes caregivers must try multiple positions until they find the "just right fit."

UPRIGHT SEATED FORWARD POSITION (IN CHILD SEAT/ HIGH CHAIR)

HOW TO: Place child in a well-supported position in a child seat or high chair. Child should be facing you and/or peers while in the comfort of the seat. You can be holding the food, cup, and/or spoon and the child should also be given the opportunity to assist with feeding.

BEST FOR: Most children 36 months and older; spoon feeding, finger feeding, cup drinking, straw drinking

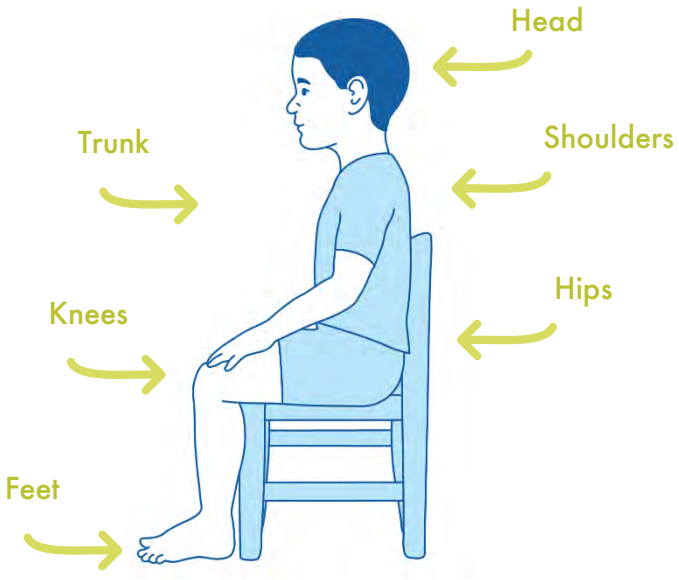


Using a tray or table with a seat or chair is helpful for encouraging exploration of foods and self-feeding using fingers, utensils and cups.

FEEDING POSITIONING CHECKLIST FOR THE CHILD 36 MONTHS AND OLDER:

AT 36 MONTHS AND OLDER A CHILD'S:

- ☐ hips should be positioned at 90-degrees and lower than the head
- ☐ body (trunk) should be upright and well supported by caregiver's body or chair – not leaning forward, backward or to either side
- ☐ shoulders should be level and facing forward
- ☐ head is centered and in midline, neutral position with chin slightly tucked
- ☐ knees should be at a 90-degree angle
- ☐ feet flat on floor, foot rests or against caregiver's body



KEY POINTS FOR THIS AGE

During this time of life, mealtimes have become an interactive process for children and caregivers. By 36 months old, children take even more responsibility during mealtimes, serving themselves, feeding themselves and cleaning up after eating. Good positioning remains critical in the success a child has when eating, and helps them stay more focused during mealtimes. Good positioning also provides a child with more physical stability and independence for effective and confident self-feeding. Caregivers must be skilled in understanding the essential aspects of appropriate positioning for mealtimes so that children can eat safely, comfortably and independently.

IMPORTANT POINTS TO REMEMBER:

① Good positioning for feeding leads safer and easier eating for children and increased confidence and success with self-feeding.

② Always consider the key aspects of positioning for every child in order to make mealtimes safe, successful and enjoyable.

③ By 36 months old, when provided appropriate positioning and practice, most all children can eat and drink independently.

SECTION 5.4: BEYOND THE MEAL: TIPS FOR SUPPORTING THE CHILD 36 MONTHS AND OLDER

During the first 36 months of life, children have made incredible changes in their development. By this time in life, they show a healthy interest in the world around them and a determination to explore, learn from others and thrive. This section discusses simple ideas to encourage healthy development across all areas of the older child's life, beyond the feedings.

By incorporating these ideas for a child during everyday activities and routines, caregivers can support a child's development in an efficient way that requires very little extra time. Try adding these ideas into mealtimes, dressing/undressing routines, during diaper and toileting routines, bath time, when offering comfort, and when providing care for multiple children at a time, such as while toileting one child, another child is nearby waiting for her turn.

MOTOR MOVEMENTS

Supporting a child's motor development is something that can easily be done each and every day. When a child is able to move her body and explore the world, she is growing her body and her brain! Additionally, supporting a child's movement directly supports feedings. Strong children with good motor skills typically have fewer issues with feedings, or issues resolve sooner.

MOTOR (PHYSICAL) ACTIVITIES	DESCRIPTION (WHAT IT LOOKS LIKE)
Big Movement Play	⇒ **Play ball:** Take turns throwing, rolling, kicking and catching a ball back and forth. Try it alone or have several children play together in a fun game. ⇒ **Soccer play:** Turn a box on its side and pretend it's the goal. Have fun kicking a ball into the goal. ⇒ **Kangaroo hop:** Place an object on the floor as the starting line. Encourage children to hop as far as they can from the starting line. ⇒ **Outside play:** Encourage children to play with balls and playground equipment (if you have it). Encourage big movements such as running, jumping, climbing and exploring. ⇒ **Stair climbing:** Allow a child to practice walking up and down stairs. Make it a game and see who can reach the top first. ⇒ **Freedom to explore:** Offer lots of opportunities for children to freely explore their environments using big movements, such as crawling, standing, walking, running, jumping, etc.

Movement and Music

- ⇒ **Dance party:** Play music you enjoy and dance together.
- ⇒ **Sing-along:** Sing songs, perform finger rhymes, and move your bodies.
- ⇒ **Make music:** Have fun making your own music (shaking and banging) using toy instruments, everyday items such as pots and pans or real instruments such as guitars, pianos, drums and bells.

Finger and Hand Play

- ⇒ **Table time:** Use a small table, box, or upside-down laundry basket with chairs for playing (blocks, puzzles, etc.), eating, artwork (scribbling, painting, drawing, cutting, folding) and schoolwork (writing, math).
- ⇒ **Block time:** Have fun stacking blocks and building towers and buildings.
- ⇒ **Basketball:** Toss items into a laundry basket or trash can as a game. Objects can include soft balls, small pillows, bean bags, stuffed animals, etc.
- ⇒ **Art time:** Have fun making designs and pictures using crayons, markers, chalk, pencils, paint or even water and dirt. Use fingers or brushes.
- ⇒ **Big helpers:** Ask children to be helpers for daily activities such as dressing/undressing, washing hands, serving food for themselves and others, opening and closing doors, pouring liquids at meals, sweeping and other clean-up activities.

Older children enjoy daily outside time where they can run, jump, slide, swing and play with each other.

PLAY AND LEARNING

Supporting a child's early play and learning is something that can easily be done each and every day. In fact, the main way young children learn is through play! So, when a child is able to play, explore objects, interact with others, and discover his environment, he is growing a strong brain that will serve him well as he grows to become an adult.

PLAY AND LEARNING ACTIVITIES	DESCRIPTION (LOOKS LIKE)
Talking, Singing, Reading and Learning	⇒ **Story time:** Have fun reading books together or telling your favorite stories. Share nursery rhymes or traditional tales. Ask for help turning pages, pointing out pictures, answering questions ("What happens next?") and recounting the story. ⇒ **Music time:** Listen to music and sing songs with a child. Have fun singing along to the songs that you know. ⇒ **Talking time:** Talk about what a child is doing, what you are doing and what you are doing together. Use words and phrases to describe shapes, colors, numbers, letters, body parts, animals, foods, action words, feelings and other common everyday items and familiar people. ⇒ **Play time:** Have fun with pretend play. Play with dolls, have a tea party, pretend to cook dinner, play "house" or imagine that you are all fun animals. ⇒ **Pretend play:** Make a playhouse, store, farm or a boat out of a large box. Explore and maneuver around the creation. ⇒ **Dress-up time:** Have a dress-up box with different types of clothing and accessories for children to explore (dresses, shirts, pants, shoes, hats, scarves, gloves, belts, costumes, etc.) ⇒ **Number time:** Use numbers throughout the day with a child. Count everything – the number or chairs in a room, children, shoes, balls, dolls and practice telling time. ⇒ **Sorting time:** Sort everyday objects by color, shape, size, type, etc. Have fun sorting in piles or containers for dumping and filling.
Playtime on Floor	⇒ **Play where the child is at – on his level – and follow his lead.** Let a child guide their play with you. Children this age enjoy playing with: blocks, balls, play food and dishes, dolls, cars/trucks, big outdoor toys, books, puzzles, homemade Play-Doh or clay, art activities, musical instruments, plastic animals and dinosaurs, hula hoops, ball pits, flashlights, forts, tents, toy tools, tricycle with helmet child-size furniture, chalk, board games, etc.

A girl has fun playing on the floor in her classroom with her caregivers and friends.

COMMUNICATION AND RELATIONSHIPS

Supporting a child's early communication and relationships is something that can easily be done each and every day. Positive relationships are the primary way to build strong children and supporting a child's communication is a wonderful way to nurture relationships between caregivers and children. When caregivers are deeply connected to children and show that they understand what a child needs, children feel safe, secure and ready to learn and grow.

COMMUNICATION AND RELATIONSHIPS ACTIVITIES	DESCRIPTION (LOOKS LIKE)
Play and Interactions	⇒ **Relate often:** When together, talk, tell stories, read and sing or hum to a child. Share special rhymes or poems, look at pictures and play games or do activities together. Repeat a child's words and encourage back and forth conversations with one another.
Calming and Soothing	⇒ **Teach regulation:** When a child becomes upset, use the same movements and sounds repeatedly to soothe him such as rocking, swaying, bouncing, patting, massaging, singing or music. ⇒ **Heads-up:** Talk to a child ahead of time about new routines, events and people. Use picture schedules to alert children to what is happening next. ⇒ **Choice making:** Offer a child two choices to help cope with feelings and options: "Do you want a book or blocks?"

	⇒ **Share feelings:** Help a child identify emotions by talking about them. Give names for feelings to help a child understand. For example: "You feel frustrated when other children take your toys without asking."
Positive Interactions	⇒ **Connect often:** Repeat the words and phrases that a child says or faces, such as smiling. Gaze at a child during activities such as diapering and toileting, mealtimes, playtime and bathing. Use touch to connect with a child, such as snuggles, hugs, massage, wrestling/rough play, holding, etc. ⇒ **Sharing is caring:** Teach children how to share and take turns by doing these with them during play and when interacting with others. Use simple phrases repeatedly to help teach these concepts ("My turn," "Your turn," "Can I have a turn?" "In 1 minute.").
Consistently Care	⇒ **Respond well:** When a child expresses they're upset, respond consistently and in a timely manner with soothing words and/or touch and physical comfort.

A group of boys show the importance of friendship and relationships.

KEY POINTS FOR THIS AGE

Being a supportive caregiver means supporting children throughout the day, including at mealtimes, playtime and during daily routines. Every activity and routine throughout a child's day is an opportunity to enhance development and quality of life. These activities don't need to be complicated or done for hours at a time. Use convenient objects from your environment, and offer short, frequent moments throughout the day for activities. Since development is interconnected, often times multiple areas can be supported simultaneously through the incorporation of one simple activity.

IMPORTANT POINTS TO REMEMBER:

① No matter how independent a child's skills may be, they still need attention and thoughtful interaction from caring adults every day.

② Encouraging daily movement, play and positive interactions with others are the best ways to support a child's total development.

③ Children will reap the benefits when caregivers find small moments throughout the day to incorporate activities that support total development.

PART 3:
SPECIAL POPULATIONS AND TOPICS: INFORMATION SUPPORTING POSITIVE FEEDING DEVELOPMENT ACROSS COMMON DISABILITIES

PART 3 | CHAPTER 6

THE CHILD WITH DISABILITIES OR SPECIAL NEEDS

"If we wish to create a lasting peace, we must begin with the children."

Mahatma Gandhi

SECTION 6.1: GENERAL CONSIDERATIONS FOR THE CHILD WITH DISABILITIES OR SPECIAL NEEDS

SUPPORTING CHILDREN WITH DISABILITIES OR SPECIAL NEEDS

Children with disabilities or special needs require unique care. This care must go beyond the support typically provided during daily routines. Due to these special and sometimes complex needs, it is critical that all caregivers understand how to best support the development of these children while still offering essential relationships that are positive, attentive, and caring.

"SPECIAL NEEDS" OR "DISABILITY" MEAN:

① A child who has a condition, disability or chronic illness that impacts her overall growth and development.
② A child who is at increased risk of illness, developmental delays and/or death because of this special need.
③ A physical or intellectual condition that impacts a child's ability to move, sense or participate in daily activities and routines.

EXAMPLES OF CONDITIONS AND ILLNESSES OF CHILDREN WITH DISABILITIES OR SPECIAL NEEDS:

COMMON CONDITIONS AND ILLNESSES

- Autism spectrum disorders
- Cardiac conditions
- Cerebral palsy
- Cleft lip and/or cleft palate
- Deaf/hard of hearing
- Down syndrome
- Failure to thrive
- Fetal alcohol spectrum disorders
- Gastrointestinal disorders
- HIV/AIDS
- Overweight/obesity
- Prematurity and low birth weight
- Severe malnutrition
- Spina bifida
- Substance (drug) exposure
- Vision impairments

The conditions and illness mentioned above are just some of the many disabilities or special needs children may be born with or that develop over time. There are also genetic conditions, disorders, diseases and even injuries that can affect the health and development of a child before birth or afterward. The sooner each child can be identified and offered the necessary supports, the greater the outcomes will be for that child.

Every child is a unique individual.

Even though some children have the same condition, they are still very different and may have varying needs or capabilities.

It is critical to look at each child independently across all areas of development to best understand their particular abilities and needs.

SECTION 6.2: COMMON CONDITIONS WITH FEEDING CHALLENGES

UNDERSTANDING COMMON CONDITIONS

A child's feeding skills are directly related to her entire body's physical and intellectual development. When a condition, illness or disability is present, feeding skills may be impaired. This section shares information about several of the most common childhood conditions and why these children often have feeding challenges, and what those challenges may look like.

COMMON CONDITIONS:

① Autism spectrum disorders
② Cardiac (heart) conditions
③ Cerebral palsy
④ Cleft lip and/or cleft palate
⑤ Deaf and hard of hearing
⑥ Down syndrome
⑦ Fetal alcohol spectrum disorders and substance (drug) exposed children
⑧ Prematurity and low birth weight
⑨ Vision Impairments

A girl with special needs feeds herself a meal all on her own. When given the chance, children with disabilities can be successful participating in many daily activities and routines.

Have high expectations.

Children with special needs can do a lot more than we might expect. Yet, it's hard to grow and learn when you aren't given the chance. Caregivers must give these children lots of opportunities to play, interact, learn and try new things.

AUTISM SPECTRUM DISORDER[32]

WHAT IS AUTISM SPECTRUM DISORDER (ASD)?

ASD is a disorder that affects a child's behavior, interactions and communication. It is typically identified during the first two years of a child's life. Because ASD is a "spectrum" disorder, every child will have challenges that are unique to him, and the severity of these challenges can range from mild to severe.

Children with ASD may have:

- Repetitive, restricted interests and behaviors
- Challenges expressing themselves and relating with others
- Difficulty handling transitions between activities and caregivers and changes in routines
- Sensory challenges
- Delays in development
- Difficulties impacting ability to function in school, work, home and/or the community
- Needs for alternative forms of communication (sign language, pictures, devices, etc.)

WHY ARE FEEDING CHALLENGES COMMON?

There are several reasons children with ASD may have feeding challenges including:

① Heightened sensory systems make eating and trying new foods an overwhelming experience.
② Motor planning difficulties make organizing the steps for eating and self-feeding challenging.
③ Low tone makes eating harder food textures difficult and can lead to overstuffing and choking.
④ Rigidity and strong preferences make trying new foods and eating a wide variety of foods difficult.

COMMON FEEDING CHALLENGES	EXAMPLES (WHAT IT LOOKS LIKE)
Extremely Picky Eating	○ Challenges trying new foods and liquids ○ Reduced diet diversity
Oral Motor Challenges	○ Difficulty managing certain food textures ○ Coughing and choking on foods and liquids
Motor Planning Challenges	○ Difficulty with self-feeding
Sensory Sensitivities	○ Severely restricted types of foods child will eat ○ Strong preferences for certain food textures, colors, flavors, temperatures, smells, etc. ○ Strong preferences for certain cups, bowls, plates, feeders, etc. ○ Highly overwhelmed by environment, including with foods and liquids offered ○ Overstuffing mouth with food to "feel" it in their mouth
Gastrointestinal Sensitivities	○ Frequent stomach pains and digestion problems – and often children will not show any signs of discomfort
Growth and Nutrition Concerns	○ Due to improper diet, reduced diet diversity and restricted intake

CARDIAC CONDITIONS

WHAT ARE CARDIAC CONDITIONS?

Cardiac conditions are problems that involve a child's heart. Usually a child is born with this condition, and she may require surgery. The heart can be enlarged or look different from what it should. Sometimes the heart has to work much harder than necessary, which can be dangerous for a child.

Children with cardiac conditions may have:

- Increased fatigue and tire easily or be very sleepy, especially when feeding
- Breathing challenges including fast breathing or difficulty breathing
- Increased sweating
- Bluish coloring of the lips, tongue and/or nails
- Delays in development

WHY ARE FEEDING CHALLENGES COMMON?

There are several reasons children with cardiac conditions may have feeding challenges including:

1. Increased fatigue and sleepiness make eating and/or staying awake to feed difficult.
2. Increased fatigue and sleepiness can delay physical developmental milestones, which can impact feeding development (poor head and neck strength and ability to sit up right for meals).
3. General weakness of the body can result in poor positioning or fatigue with sucking and chewing.
4. Breathing difficulties can make sucking, chewing and swallowing exhausting.
5. Higher energy (food) requirements due to a faster heart rate and breathing can go unmet because of fatigue and increased sleepiness.

COMMON FEEDING CHALLENGES	EXAMPLES (WHAT IT LOOKS LIKE)
Fatigue and Increased Sleepiness	○ Falls asleep frequently during feedings ○ Difficult to wake for feedings ○ Older child avoids certain foods that make him tire more easily
Reduced Feeding Volume or Intake	○ Inability to take full feedings or eat entire meal ○ Takes smaller amounts more often during the day and night
Long Feedings	○ Feedings can take over 30 minutes
Disorganized Feedings	○ Poor coordination of sucking, swallowing and breathing when feeding ○ Fussiness at breast, bottle or meal ○ Gasping for air or gulping liquids
Oral Motor Challenges	○ Weak suck (possibly liquid leakage from mouth) ○ Difficulty managing certain food textures due to fatigue effect
Food and Oral Aversions	○ Prefers liquids over solids ○ Prefers "easier" (softer) foods over "harder" textured foods ○ Avoids liquids, foods and even feedings knowing that they lead to fatigue
Poor Appetite and Slow Growth	○ Due to reduced intake at feedings, restricted intake, possible development of oral aversions and unmet higher nutritional needs

CEREBRAL PALSY (CP)

WHAT IS CEREBRAL PALSY?

CP is a disorder that affects a child's ability to move and coordinate the muscles of the body because of damage to the brain. Some children develop CP before they are born, during birth, or during the first years of life. Every child with CP will have challenges that are unique to him, and the severity of these challenges can range from mild to severe. A child's CP should not worsen over time.

It's important to know that although some children with CP are unable to speak, they often still understand what is being said and what is happening around them. Not all children with CP have cognitive (thinking/mental) delays.

Children with CP may have:

- High or low tone in parts of the body
- Delays in development
- Other health issues: seizures, learning disabilities, vision and/or hearing impairments, constipation (hard, dry stool or less than three stools per week), dehydration, failure to thrive (lack of expected normal physical growth), etc.
- Needs for alternative forms of communication (pictures, devices, etc.)

WHY ARE FEEDING CHALLENGES COMMON?

There are several reasons children with CP may have feeding challenges including:

① Limited movement from irregular muscle control making eating and swallowing difficult, uncomfortable and sometimes even unsafe.

② Poor body posture and control of the head and neck and/or body making opening and closing the mouth for eating and swallowing difficult.

③ Higher energy (food) requirements due to higher muscle activity can go unmet because of more calories being burned than a child can take in across the day.

④ Low tone makes eating harder food textures difficult and can lead to late introductions of these textures that are necessary for proper oral-motor development and expanding diet diversity.

COMMON FEEDING CHALLENGES	EXAMPLES (WHAT IT LOOKS LIKE)
Increased Incidence of Aspiration	○ Delayed (slowed) swallowing of foods and liquids when in the mouth ○ Frequent coughing, choking, gagging vomiting on foods and liquids ○ Wet vocal quality during and following feeds → possible sign of aspiration ○ Frequent lung illnesses or infections
Long Feedings	○ Feedings can take over 30 minutes
Oral Motor Challenges	○ Difficulty using lips, cheeks, jaw and tongue for chewing and swallowing foods ○ Difficulty opening and closing the mouth for eating/drinking from spoons and cups ○ Difficulty transitioning to other foods, especially textured foods that require chewing ○ Delayed oral motor skills for eating harder textures because of late introductions to them
Physical Challenges	○ Difficulty maintaining safe positioning for feedings ○ Extended head and neck positioning (forward, backward, to sides) can make feeding a child challenging and unsafe ○ High tone in the arms, hands and back can make self-feeding challenging
Sensory Sensitivities and Food Aversions	○ Easily stimulated by certain food textures, and temperatures which leads to more muscle tightness (contractions) ○ Highly overwhelmed by environment and types of foods and liquids offered which leads to more muscle tightness (contractions) ○ Prefers liquids over solids ○ Prefers "easier" (softer) foods over "harder" textured foods ○ Avoids liquids, foods and even feedings knowing that they lead to fatigue or are uncomfortable (coughing, choking, etc.) ○ Avoids certain foods due to late introduction or exposure to them
Growth and Nutrition Concerns	○ Malnutrition and dehydration due to reduced intake, diet diversity and higher energy needs

CLEFT LIP AND/OR PALATE (CL/P)

WHAT IS CLEFT LIP/PALATE?

Cleft lip and/or cleft palate are both birth defects of the face. A child is born with a "cleft" or split in the upper lip, nose and/or roof of the mouth (palate). A child can have a cleft lip, a cleft palate or in some cases both. Children typically require many surgeries over several years to repair a cleft.

Children with CL/P may have:

- Difficulty making sounds and talking (speech or language delays)
- Failure to thrive (lack of expected normal physical growth)
- Problems with teeth development and chewing (teeth may be absent, poorly aligned or grow sideways in the mouth)
- Frequent ear infections and possible hearing loss, if gone untreated

WHY ARE FEEDING CHALLENGES COMMON?

There are several reasons children with CL/P may have feeding challenges including:

① Heightened sensitivities of the face due to frequent medical procedures may lead children to react to feedings by crying, pulling away from bottles/spoons/cups or showing discomfort with touch.

② Discomfort with feedings (from food coming out of nose, coughing, choking, pain from mouth/face procedures, etc.) may lead to food refusals.

③ Difficulty sucking due to the cleft opening(s) may cause challenges with breast and bottle feeding because of the inability to create pressure while sucking.

④ Face and mouth (including teeth) abnormalities can make chewing certain textures of food difficult or uncomfortable.

⑤ Difficulty keeping foods/liquids in the mouth and appropriately chewing and swallowing them due to cleft openings in the lip and/or mouth.

COMMON FEEDING CHALLENGES	EXAMPLES (WHAT IT LOOKS LIKE)
Inefficient Feedings	○ Poor latch on breast or bottle for sucking due to cleft opening ○ Falls asleep during feeds or "gives up" easily due to poor and inefficient sucking and eating skills ○ Liquids or foods flow out of nose during and after feedings ○ Regular bottles and nipples do not work well with these children
Increased Risk of Aspiration	○ Frequent coughing, choking, gagging or vomiting on foods and liquids ○ Wet vocal quality during and following feeds → possible sign of aspiration ○ Liquids and foods that get stuck in nose can travel down near airway resulting in choking and/or aspiration ○ Frequent lung illnesses or infections
Long Feedings	○ Feedings can take over 30 minutes
Oral Motor Challenges	○ Difficulty sucking, chewing and swallowing liquids and foods ○ Difficulty transitioning to other food textures, especially those that require chewing ○ Delayed oral-motor skills for eating harder textures because of late introductions to them
Sensory Sensitivities and Food Aversions	○ Prefers "easier" (softer) foods over "harder" textured foods ○ Avoids liquids, foods and even feedings knowing that they feel uncomfortable or cause pain ○ Easily overwhelmed by environments, types of foods, liquids and bottles, spoons or cups offered and touch provided to and around the face
Growth and Nutrition Concerns	○ Due to reduced intake at feedings, restricted intake and possible development of oral aversions

DEAF/HARD OF HEARING

WHAT IS DEAFNESS AND HARD OF HEARING (HOH)?

Deafness is when a child cannot hear at all in one or both ears. HoH is when a child can hear certain sounds, but he may not hear all sounds in one or both ears. A child who is HoH may have a mild, moderate or profound hearing loss. Children can be born deaf or HoH or they can lose their hearing over time.

Children who are deaf or HoH may have:

- Delays in development, especially early learning and/or communication
- Difficulties in school or with academics
- Challenges expressing themselves and relating with others
- Needs for alternative forms of communication (sign language, pictures, etc.)

WHY ARE FEEDING CHALLENGES COMMON?

There are several reasons children who are deaf or HoH may have feeding challenges including:

① Heightened sensory systems make eating and trying new foods an overwhelming experience.

② Reduced or limited auditory (hearing) input can make getting calm for feedings and learning certain elements of how to eat more challenging.

③ Other additional conditions or illnesses such as visual, physical or cognitive impairments can occur with hearing loss, which can further impact feeding development for a child.

COMMON FEEDING CHALLENGES	EXAMPLES (WHAT IT LOOKS LIKE)
Sensory Sensitivities	○ Highly overwhelmed by environment, especially visual elements ○ Reduced ability to focus at feedings leading to reduced intake
Oral Motor Challenges	○ Difficulty managing certain food textures ○ Delayed oral motor skills for eating harder textures because of late introductions to them
Challenges Associated with Other Conditions (Cerebral Palsy, Autism Spectrum Disorder, Vision Impairments, Etc.)	○ Heightened sensory sensitivities impacting food acceptance ○ Positioning challenges due to muscle tone (high or low)
Growth and Nutrition Concerns	○ Due to reduced intake at feedings, restricted intake and possible delayed introductions of different food textures

DOWN SYNDROME

WHAT IS DOWN SYNDROME?

Down syndrome is a genetic condition a child is born with that causes developmental and intellectual delays. There are several common physical traits that all children have with Down syndrome. However, every child is a unique individual with varying degrees of these characteristics.

Children with Down syndrome may have:

- Common features: Upward slanted eyes, small ears, protruding (larger) tongue, increased saliva, flat face profile, smaller in height and a deep crease in the center of the hand
- Low muscle tone
- Sleep challenges
- Slow growth
- Delays in development
- Other health issues including: seizures, vision, hearing, heart and lung (breathing) problems, etc.
- Needs for alternative forms of communication (sign language, pictures, devices, etc.)

WHY ARE FEEDING CHALLENGES COMMON?

There are several reasons children with Down syndrome may have feeding challenges including:

① Sensitive sensory systems can make transitioning to different food textures, flavors and temperatures difficult.
② Low tone makes eating harder food textures difficult and can lead to late introductions of these textures that are necessary for proper oral-motor development and expanding diet diversity.
③ Low tone can make endurance for eating (especially harder food textures that require chewing) more challenging, leading to reduced intake at meals.
④ Behavioral and/or attention challenges, which may look like lack of focus or "acting out behaviors," make sitting for eating difficult.

COMMON FEEDING CHALLENGES	EXAMPLES (WHAT IT LOOKS LIKE)
Physical Challenges	○ Difficulty maintaining stable position for safe feedings and eating ○ Low tone can lead to slumping or falling over in chairs and difficulty holding head and neck upright for feedings
Inefficient Feedings	○ Falls asleep frequently during feeds ○ Poor coordination of sucking, swallowing and breathing for feedings ○ Older child avoids certain foods that make her tire more easily
Long Feedings	○ Feedings can take over 30 minutes
Oral Motor Challenges	○ Weak suck (possible liquid leakage from mouth) ○ Difficulty managing certain food textures (especially those that require chewing) due to low tone and fatigue effect ○ Coughing or choking often on poorly chewed foods ○ Delayed oral-motor skills for eating harder textures because of late introductions to them
Motor Planning Challenges	○ Difficulty with self-feeding
Sensory Sensitivities	○ Avoids certain foods due to knowing some foods are harder to eat or cause fatigue ○ Strong preferences and heavy reliance on certain "easier" food textures ○ Overstuffs mouth with food to "feel" it in their mouths
Growth and Nutrition Concerns	○ Due to restricted intake and possible delayed introductions of different food textures

FETAL ALCOHOL SPECTRUM DISORDERS (FASD) AND SUBSTANCE EXPOSED CHILDREN[33]

WHAT IS FASD AND SUBSTANCE EXPOSURE?

FASD is a range of conditions that a child is born with when his mother drinks alcohol while she is pregnant. A child is born substance exposed when a mother uses drugs while she is pregnant. The type of drug(s), the amount used and when the drugs were used during pregnancy all determine how affected a baby will be when born.

Any amount of alcohol drank during any time a woman is pregnant can cause a child to have FASD.

Children with FASD or substance exposure may have:

- Common features for FASD only: small head, smooth ridge between upper lip and nose, small in height, low weight
- Sleep challenges
- Increased fussiness and difficulty getting calm
- Behavior challenges (very active, difficulty paying attention)
- Learning difficulties (poor memory and reasoning, reduced judgement and problem solving)
- Other health issues: hearing and vision impairments, problems with kidneys, heart and/or bones
- Very sensitive sensory systems and ongoing sensory challenges which may result in children being hypersensitive to touch, smell, flavors, sounds, etc.
- Difficulty handling transitions between activities and caregivers and changes in routines
- High or low tone in the body and possible tremors
- Delays in development
- Difficulties that impact ability to function in school, work, home and/or the community

WHY ARE FEEDING CHALLENGES COMMON?

There are several reasons children with FASD and/or substance exposure may have feeding challenges including:

① Extremely sensitive sensory systems and difficulty calming down or being soothed.
② Tone variations, physical delays and in coordination with body movements all leading to difficulties with infant feeding and eating a more diverse diet as a child grows older.
③ Sleep and alertness challenges such as children may appear very sleepy or have a hard time following a normal sleep schedule.

COMMON FEEDING CHALLENGES	EXAMPLES (WHAT IT LOOKS LIKE)
Fatigue and Increased Sleepiness	○ Falls asleep frequently during feedings ○ Difficult to wake for feedings ○ Older child avoids certain foods that make him tire more easily
Reduced Feeding Volume or Intake	○ Inability to eat entire meal ○ Takes smaller amounts of food more often during the day and night
Long Feedings	○ Feedings can take over 30 minutes
Inefficient Feedings	○ Difficulty with breast or bottle feedings ○ Weak suck (possible liquid leakage from mouth) ○ Increased fussiness during feedings ○ Uncoordinated sucking, swallowing and breathing for feeding
Physical Challenges	○ Difficulty maintaining stable position for safe feedings and eating ○ Low tone can lead to slumping or falling over in chairs and difficulty holding head and neck upright for feedings ○ High tone can lead to overextension of body, head and neck
Sensory Sensitivities and Food Aversions Environmental Challenges (	○ Highly overwhelmed by environments, especially bright, loud and active “busy” spaces ○ Strong preferences for certain food textures, flavors, temperatures, etc. ○ Unable to know when he is hungry and/or full from eating or drinking ○ Overstuffs mouth with food to “feel” it better or due to distractions/inattention ○ Challenges trying new foods and liquids ○ Reduced diet diversity
Oral Motor Challenges	○ Weak suck (possible liquid leakage from mouth) ○ Difficulty managing certain food textures (especially those that require chewing) due to low tone, fatigue effect and reduced focus at meals ○ Coughs or chokes often on poorly chewed foods
Slow or Delayed Growth Nutrition Concerns	○ Due to reduced intake at feedings, restricted intake and possible delayed introductions of different food textures ○ Slowed or delayed growth

PREMATURITY AND LOW BIRTH WEIGHT?

WHAT IS PREMATURITY AND LOW BIRTH WEIGHT?

Prematurity is when a baby is born early (before 37 weeks gestation). It is the most common reason babies die and why they are hospitalized after birth. Babies who weigh less at birth are at higher risk of several health conditions (diabetes, obesity and high blood pressure) and infant or child death. Babies who are born early may miss all or part of the vital last trimester in their mother's belly when critical brain, lung and reflex development occurs. Often, these tiny babies are born before their swallowing reflex emerges, which can make early feeding very hard.

Low birth weight refers to a baby born weighing less than 2500 grams, 2.5kg (5 pounds 8 ounces).

Children who are born premature and/or low birth weight may have:

- Sleep challenges
- Delays in all areas of development because of being born early
- Behavior challenges or learning difficulties
- other health issues including hearing and vision problems, asthma or breathing difficulties, reflux, etc.
- Sensitive sensory systems
- Increased fussiness and difficulty becoming calm
- Lengthy or frequent hospitalizations
- Digestion issues or lack of appetite

WHY ARE FEEDING CHALLENGES COMMON?

There are several reasons children born premature and/or low birth weight may have feeding challenges including:

① Heightened sensory systems and difficulty calming down or being soothed.
② Physical body and internal system immaturity due to being born early leading to delayed or absence of necessary skills such as breathing, sucking and swallowing for feeding.
③ Sleep and alertness challenges making waking for feedings and staying awake for feedings difficult.

④ Heightened sensitivities due to frequent medical procedures may lead children to react to feedings by crying, pulling away from bottles, spoons, cups or showing discomfort with touch or even the sight of the bottle.

⑤ Discomfort with feedings (frequent coughing, choking, reflux/spitting up, pain from procedures, etc.) may lead to food refusals.

COMMON FEEDING CHALLENGES	EXAMPLES (WHAT IT LOOKS LIKE)
Fatigue and Increased Sleepiness	○ Falls asleep frequently during feedings ○ Difficult to wake for feedings ○ Older child avoids certain foods that make him tire more easily
Reduced Feeding Volume or Intake	○ Inability to eat entire meal ○ Takes smaller amounts more often during the day and night
Long Feedings	○ Feedings can take over 30 minutes
Disorganized Feedings	○ Difficulty with breast or bottle feedings ○ Weak suck (possible liquid leakage from mouth) ○ Increased fussiness during feedings ○ Uncoordinated sucking, swallowing and breathing for feeding ○ Gasps for air or gulps liquids ○ Higher risk of aspiration
Physical Challenges	○ Difficulty maintaining stable position for safe feedings and eating ○ Low tone can lead to slumping or falling over in chairs and difficulty holding head and neck upright for feedings ○ High tone can lead to overextension of body, head and neck
Oral Motor Challenges	○ Weak suck (possible liquid leakage from mouth) ○ Difficulty managing certain food textures (especially those that require chewing) due to tone issues or fatigue effect ○ Coughs or chokes more often on poorly chewed foods
Sensory Sensitivities and Food Aversions	○ Highly overwhelmed by environments, especially bright, loud and active "busy" spaces ○ Strong preferences for certain food textures, flavors, temperatures, etc. ○ Unable to know when he is hungry and/or full from eating or drinking
Growth and Nutrition Concerns	○ Due to reduced intake at feedings, restricted intake, possible development of oral aversions and digestion issues due to an immature system

VISION IMPAIRMENTS

WHAT ARE VISION IMPAIRMENTS?

Vision impairments are when a child cannot see at all in one or both eyes or she has some degree of vision, but there is an impairment (cortical visual impairment, astigmatism, etc.). Children can be born with a vision impairment or they can lose their vision over time. Often children with visual impairments are not provided ample opportunity to explore their surroundings. This reduced stimulation impacts their learning as well as their interest in and comfort with feeding activities.

Children who have a vision impairment may have:

- Delayed development, especially physical, early learning and communication
- Challenges learning how to eat and self-feed because they do not have visual models
- Difficulties with learning and academics or school
- Challenges navigating environments
- Needs for alternative methods for learning and communicating (braille)

WHY ARE FEEDING CHALLENGES COMMON?

There are several reasons children who have vision impairments may have feeding challenges including:

① heightened sensory systems make touching and eating new foods a very overwhelming experience.
② visual impairments make learning how to move the body more challenging which can also impact feeding development (poor head and neck strength, ability to sit upright for meals, difficulty reaching and grabbing foods, self-feeding, etc.).
③ other additional conditions or illnesses such as hearing, physical or cognitive impairments can occur with vision impairments, which can further impact feeding development for a child.
④ reduced or limiting vision can make becoming calm for feedings, feeling safe to touch and taste foods and learning certain elements of how to eat more challenging.

COMMON FEEDING CHALLENGES	EXAMPLES (WHAT IT LOOKS LIKE)
Sensory Sensitivities and Food Aversions	○ Highly overwhelmed by environment, especially tactile information (touch and feel) ○ Strong preferences for certain food textures, flavors and temperatures ○ Strong preference for certain bottles, cups, bowls, plates, feeders, etc. ○ Need increased time to touch foods using hands (or feet) first before becoming comfortable tasting ○ Frequently avoiding or refusing being fed by caregivers ○ Slow transitions when advancing diet
Oral Motor Challenges	○ Difficulty managing certain food textures ○ Delayed oral-motor skills for eating harder textures because of late introductions to them
Physical Challenges	○ Difficulty maintaining safe positioning for feedings ○ Difficulty with self-feeding due to sensory sensitivities (tactile defensiveness) and difficulties locating foods
Challenges Associated with Other Conditions (CP, ASD, Hearing Loss, Etc.)	○ Heightened sensory sensitivities impacting food and feeding acceptance ○ Positioning challenges due to muscle tone (high or low)
Growth and Nutrition Concerns	○ Due to reduced intake at feedings, restricted intake and possible delayed introductions of different food textures

SECTION 6.3: BEYOND THE MEAL: TIPS FOR SUPPORTING THE CHILD WITH SPECIAL NEEDS

Condition or not, every single child deserves the same opportunity to grow and develop to their fullest. Despite a child's challenges, it is essential that caregivers understand each child's strengths, capacities and needs. Furthermore, it is vital that all areas of development are supported — not just feedings and mealtimes. By incorporating simple supports for a child during everyday activities and routines, caregivers can support a child's development in an efficient way that requires very little extra time.

For more specific information on activities to support each area of developmental for children with special needs and of varying ages, refer to Chapters 2, 3, 4 and 5.

TIPS FOR SUPPORTING THE CHILD WITH SPECIAL NEEDS

TIP 1:	Healthy relationships aid brain growth. Even though a child may have special needs, they still need positive relationships to grow strong and healthy. Positive interactions between children and caregivers support the growth and development of a child's brain, body and mind. Strong brains and bodies grow from quality time with caregivers. Children with special needs who are nurtured by caregivers through daily (frequent) positive interactions are actually healthier and more well-nourished (body and mind). This is important since these children often have difficulties eating and thriving.
TIP 2:	Have high expectations. Children with special needs can do a lot more than we might expect. Yet, it's hard to grow and learn when you aren't given the chance. Caregivers must give these children lots of opportunities to play, interact, learn and try new things.
TIP 3:	Find their strengths. Every child with special needs has her own special strengths. It's important for caregivers to identify these and use them to help a child continue to develop.
TIP 4:	Consider the individuality of each child. Every child with special needs is different. Despite having a similar condition, they do not always have similar abilities and needs. The care we provide for each child must be individualized.
TIP 5:	Children learn best in the context of positive relationships. Offering positive interactions with a child with special needs during mealtimes (and beyond) is the best way to support their development.

KEY POINTS FOR THE CHILD WITH SPECIAL NEEDS

Children with special needs are children who have unique differences and may require extra care and patience from their caregivers. Feedings can be especially challenging for these children. It is valuable for caregivers to understand and anticipate which children may have higher needs, what those needs may be and how to best support them.

IMPORTANT POINTS TO REMEMBER:

① Have high expectations. Children with special needs can do a lot more than we might expect. Yet, it's hard to grow and learn when you aren't given the chance. Caregivers must give these children lots of opportunities to play, interact, learn and try new things, including mealtime experiences such as new foods and self-feeding.

② Children with special needs who are nurtured by caregivers through daily (frequent) positive interactions are actually healthier and more well-nourished (body and mind). This is important since these children often have difficulties eating and thriving.

For more specific information on how to specifically support feeding for children with feeding challenges, refer to Chapter 7 and the Appendix.

PART 3 | CHAPTER 7

COMMON FEEDING CHALLENGES AND SOLUTIONS ACROSS THE AGES

"Let us put our minds together and see what life we can make for our children."

Sitting Bull

SECTION 7.1: GENERAL CONSIDERATIONS FOR FEEDING CHALLENGES

SUPPORTING FEEDING CHALLENGES

Children with feeding challenges often have difficulties because of certain conditions or disabilities. Feeding challenges can arise at the start of a child's life or they can develop over time. Whatever the reason, what's most important is that caregivers know how to deliver care that supports a child's ability to feed safely and comfortably so they can grow and thrive. This section will discuss the most common feeding challenges seen in babies and older children. It will also share what these challenges may look like and what caregivers can do to make mealtimes successful.

EXAMPLES OF COMMON CONDITIONS AND DISABILITIES OF CHILDREN WITH FEEDING CHALLENGES:

COMMON CONDITIONS AND ILLNESSES

- Autism spectrum disorders
- Cardiac conditions
- Cerebral palsy
- Cleft lip and/or cleft palate
- Deaf or hard of hearing
- Down syndrome
- Fetal alcohol spectrum disorders
- Gastrointestinal disorders
- Prematurity
- Sensory sensitivities
- Substance (drug) exposure
- Vision impairments

COMMON YOUNG CHILD FEEDING CHALLENGES:

Challenge ① The sleepy, hard to wake baby

Challenge ② The fussy baby who is hard to calm

Challenge ③ The baby who tires easily

Challenge ④ The baby who has difficulty sucking

Challenge ⑤ The baby who coughs, chokes or gags

Challenge ⑥ The baby who frequently spits up

Challenge ⑦ Special population: The baby who has cleft lip and/or palate

Challenge ⑧ Special population: The baby who is born early

Challenge ⑨ Special population: The baby who is born substance exposed

COMMON OLDER CHILD FEEDING CHALLENGES:

Challenge ⑩ The child who has problems with muscle tone

Challenge ⑪ The child who has difficulties with structures of the mouth

Challenge ⑫ The child who has a sensitive sensory system

Challenge ⑬ The child who has trouble biting and/or chewing

Challenge ⑭ The child who has problems swallowing

CHALLENGE NO. 1: THE SLEEPY, HARD TO WAKE BABY

HOW TO IDENTIFY: These babies fall asleep during feedings and they can be difficult to keep awake while feeding. Often these babies do not let caregivers know when they are hungry or even if they are hungry. Babies with fragile systems, especially those born early or exposed to substances, have extremely sensitive bodies. Often, they will fall asleep as a way to protect themselves when challenged by stressful environments and situations. May include babies with Down syndrome, heart problems (cardiac conditions), babies who are medically fragile, born early or babies exposed to substances in the womb.

COMMON FEEDING PROBLEMS:

- Weight loss and poor appetite
- May not eat much at one time (reduced intake)
- Difficulty sucking
- Difficulty swallowing with frequent choking and/or gasping
- Tire quickly and hard to wake or keep awake
- Easily overwhelmed and falls asleep when trying to feed
- Irritable and fussy
- Poor growth and slow weight gain

HOW TO SUPPORT

Feeding and Timing 	○ Feed more frequently based on baby's hunger cues (Appendix 9L-1, 9L-2). ○ Feed baby around the clock possibly every two to three hours. ○ Limit feedings to 30 minutes or less.
Equipment 	○ Choose nipple/bottle that allow baby to eat slowly such as a slower flow nipple (Chapter 1, Section 5; Appendix 9G).
Positioning 	○ Feed baby in upright position at greater than 45-degrees. ○ Follow key elements of positioning for babies. (Chapter 1, Section 1; Chapter 2, Section 3) ○ Feed with baby's hands toward chest, hips and knees bent.
Other Ways to Help 	○ Use gentle waking activities before or during feedings. (Appendix 9K). ○ Feed in a brighter room with more light and sound or feed in a quieter, darker room (let baby show you which works best). ○ Walk around while feeding baby to help him stay awake. ○ Un-swaddle or unclothe baby to wake him and/or keep him awake.

CHALLENGE NO. 2: THE FUSSY BABY

HOW TO IDENTIFY: These babies often fuss when they are being fed and when they are not being fed. They may appear hungry and then fuss when offered the bottle. Babies with fragile systems, especially medically complex babies or those born early or exposed to substances such as drugs or alcohol, will fuss as a way to communicate their discomfort and stress. It can be confusing for caregivers and very hard to understand why they are upset. Additionally, these are the babies that can be incredibly difficult to soothe or they don't stay calm for very long. May include babies with cardiac problems (heart conditions), babies exposed to substances in the womb, babies born early, medically fragile, babies with vision or hearing impairments or with neurodevelopmental delays.

COMMON FEEDING PROBLEMS:

- Difficulty sucking
- Irritable and colicky
- Refusing the bottle
- Increased movement (wriggling, writhing, etc.)
- Hard to soothe and stay calm
- Poor growth and slow weight gain
- Poor appetite and weight loss

Feeding a baby who is lying down or asleep is dangerous. Only feed babies in an upright position and when they are awake.

HOW TO SUPPORT

Feeding and Timing

- Offer feedings regularly and frequently possibly every two or three hours.
- Offer smaller more frequent feedings as necessary.
- Limit all feedings to 30 minutes or less.

Equipment

- Use a softer nipple that is not fast flowing, often a zero or one will be listed on the nipple (Chapter 1, Section 5; Appendix 9G).
- Offer a pacifier before and after feedings for soothing (Appendix 9G).
- Use a baby carrier to help calm baby between feedings.

Positioning

- Follow key elements of positioning for babies (Chapter 1, Section 1; Chapter 2, Section 3).
- Swaddle or hold baby snuggly in your arms (Chapter 2, Section 3).
- Swaddle baby with hands and arms out so she can reach her mouth for comfort and self-soothing (Chapter 2, Section 3).
- Feed in elevated cradle, side-lying or semi-reclined positions (Chapter 1, Section 1; Chapter 2, Section 3).

Other Ways to Help

- Offer a pacifier regularly for soothing (Appendix 9G).
- Offer a pacifier or baby's finger for sucking before feedings (Appendix 9G).
- Soothe and feed baby in a quiet, darker place (Chapter 1, Section 3; Appendix 9K).
- Use rhythmic, repetitive movements and sounds to calm baby Appendix 9K).

Never force a bottle into a baby's mouth when she is distressed. Calm a baby first and then offer a bottle. If bottles are forced, babies can become more upset and even refuse feedings.

Remember: Watch for baby "stress cues" such as crying, back arching, a wrinkled forehead, wide open eyes, raised eyebrows, fast, loud breathing, turning his head or eyes to look away, etc., and help calm a baby using a strategy from Appendix 9L-2 and 9K.

Babies feed best when they are calm.

CHALLENGE NO. 3: THE BABY WHO TIRES EASILY

HOW TO IDENTIFY: These babies will often feed for only a few minutes before getting tired. They frequently fall asleep during feedings and can have trouble finishing feedings. Feeding is hard work, especially for babies with fragile systems. Babies with heart or lung issues or those born early, tend to tire faster than expected and have difficulty building endurance for feeding as well as difficulty with many other activities (sitting, crawling). May include babies with cardiac (heart) or respiratory (lung) conditions, Down syndrome or babies who are medically fragile, born early or exposed to a substance in the womb.

A young baby is fed slowly by her caregiver, giving her short breaks to catch her breath while feeding.

COMMON FEEDING PROBLEMS:

- Weight loss and poor appetite
- Cannot eat very much at one time
- Difficulty sucking (weak suck, leaking liquids)
- Difficulty swallowing, with frequent choking and/or gasping
- Difficulty coordinating sucking, swallowing and breathing
- Rapid breathing during feedings
- Tires quickly and falls asleep during feedings
- Poor growth and slow weight gain

HOW TO SUPPORT

Feeding and Timing

- Offer small feedings more frequently (60 ml or 2 fl. oz.) every two hours).
- Pace meals to slowly build endurance for taking more in a feeding (Appendix 9J).
- Limit all feedings to 30 minutes or less.

Equipment

- Use a softer nipple that is easier for a tired baby to suck.
- Choose a nipple and bottle that allow a baby to eat at a pace that matches her abilities. Too fast a flow can overwhelm a baby and be tiring. Too slow a flow can frustrate a baby and be tiring (Chapter 1, Section 5; Appendix 9G).

Positioning

- Follow key elements of positioning for babies (Chapter 1, Section 1; Chapter 2, Section 3)
- Feed in elevated cradle, side-lying or semi-reclined positions (Chapter 1, Section 1; Chapter 2, Section 3).
- Swaddle baby or hold baby snuggly in your arms (Chapter 2, Section 3).
- Swaddle baby with hands and arms out so he can reach his mouth for comfort and self-soothing (Chapter 2, Section 3).

Other Ways to Help

- Offer pacifier before feedings to help baby take nipple well (Appendix 9G).
- Encourage sucking using press-down technique Bottle Feeding Press-Down Technique (Appendix 9J).
- Support sucking by using Jaw and Chin Support Technique (Appendix 9J).
- Support sucking by using Lip and Cheek Support Technique (Appendix 9J).
- Hold nipple steady without wriggling in baby's mouth as wriggling can distract baby or interrupt their flow.

Remember: If providing support to a baby's cheeks and jaw results in coughing or choking, this type of support should be immediately stopped.

Remember: Babies who tire easily become children who may also get tired easily during meals. The older child needs just as much support as a baby, such as offering smaller meals more often, pacing how fast they eat and offering options for softer foods that require less chewing.

CHALLENGE NO. 4: THE BABY WHO HAS TROUBLE SUCKING

HOW TO IDENTIFY: These babies cannot suck strongly or efficiently, or they may have a very disorganized sucking pattern. They may have trouble compressing nipples to get milk flowing using their lips and cheeks. Faster flowing liquids can be very hard or even dangerous for them to drink. They often have messy feedings and can become tired easily since sucking can take so much effort. These babies can also struggle with finding a good sucking rhythm, which can lead to even more tiring and stressful feedings. Babies with low muscle tone or weak hearts and lungs tend to have this particular challenge. May include babies with Down syndrome; babies with low muscle tone or floppy muscles (cerebral palsy); babies exposed to substances such as drugs or alcohol in the womb; or babies born early, medically fragile or with neurodevelopmental delays.

COMMON FEEDING PROBLEMS:

- Difficulty latching onto nipple
- Weak suck
- Difficulty coordinating sucking, swallowing and breathing
- Increased instances of choking, coughing, gagging or gasping
- Excessive drooling and/or loss of liquid from mouth
- Tire easily, hard to finish bottle
- Fall asleep during feedings
- Often cannot hold head up
- Poor growth and slow weight gain

A young baby is swaddled and given a pacifier to keep him calm and organized before his feeding.

HOW TO SUPPORT

Feeding and Timing

- Offer feedings frequently possibly every 2-3 hours.
- Offer smaller feedings more frequently (such as 60 ml or 2 fl. oz. every 2 hours) if baby tires easily.
- Pace meals to help baby find a sucking rhythm (Appendix 9J).
- Limit all feedings to 30 minutes or less.

Equipment

- Use a softer nipple that is easier for a weak baby to suck.
- Choose a nipple/bottle that offers a flow to match baby's abilities (Chapter 1, Section 5; Appendix 9G).
- If baby is leaking milk, offer a slower flow nipple with a zero or one (Chapter 1, Section 5; Appendix 9G).

Positioning

- Follow key elements of positioning for babies (Chapter 1, Section 1; Chapter 2, Section 3).
- Feed baby in elevated side-lying or cradle positions (Chapter 1, Section 1; Chapter 2, Section 3).
- Swaddle for support with hands toward her chest and hips bent (Chapter 2, Section 3).

Other Ways to Help

- Offer pacifier or baby's fingers before feedings to help baby take nipple (Appendix 9G).
- Offer pacifier for sucking practice between feedings (Appendix 9G).
- Sooth and feed baby in a quiet, darker place (Chapter 1, Section 3; Appendix 9K).
- Use rhythmic, repetitive movements and sounds to help baby become calm (Appendix 9K).
- Encourage sucking using Bottle Feeding Press-Down and Lip Stimulation/Stroking Techniques (Appendix 9J).
- Support sucking by using Jaw and Chin Support Technique (Appendix 9J).
- Support sucking by using Lip and Cheek Support Technique (Appendix 9J).

CHALLENGE NO. 5: THE BABY WHO COUGHS, CHOKES OR GAGS

HOW TO IDENTIFY: These babies may cough, choke or frequently gag and spit up while taking liquids from a bottle during a feeding, directly after a feeding or during both. These babies may look like they are struggling to eat and breathe, gasping for breaths while feeding. May include babies with heart (cardiac) conditions, Down syndrome, babies with muscle tone issues such as cerebral palsy, babies with cleft lip and/or palate, babies exposed to substances such as drugs or alcohol in the womb or babies born early or with neurodevelopmental delays.

COMMON FEEDING PROBLEMS:

- Difficulty coordinating suck-swallow-breath for feedings
- Difficulty swallowing liquids or own saliva
- Excessive drooling and/or loss of liquid from mouth
- Tires easily and difficulty finishing a bottle
- Frequent coughing, choking and/or gagging, and possible refusal of bottle
- Fussiness or irritability before and during feedings
- Poor growth and slow weight gain

<u>Remember:</u> Babies who cough, choke or gag with feedings may be aspirating (when liquid goes into lungs instead of into their stomachs). This can make babies very sick with upper respiratory infections and/or pneumonia, which can lead to poor weight gain and even death.

HOW TO SUPPORT

Feeding and Timing

- Feed baby around the clock possibly every 2-3 hours.
- Offer smaller feedings more frequently of 60 ml or 2 fl. oz. every 2 hours if baby tires easily.
- Pace meals to help baby find a sucking rhythm and reduce coughing (Appendix 9J).
- Limit all feedings to 30 minutes or less.

Equipment

- Choose a nipple/ bottle that offers a flow to match baby's abilities (Chapter 1, Section 5; Appendix 9G).
- Slower flows are usually easier and safer for these babies (Chapter 1, Section 5; Appendix 9G).
- Try other strategies first. If all other strategies fail, consider carefully trying to thicken liquids to slow flow (and use with a faster flow nipple). **Do not cut nipples to speed the flow** (Chapter 1, Section 9; Appendices 9C and 9E).

Positioning

- Follow key elements of positioning for babies (Chapter 1, Section 1; Chapter 2, Section 3).
- Feed baby in elevated side-lying position (Chapter 1, Section 1; Chapter 2, Section 3).
- Swaddle for support with hands toward his chest and hips bent (Chapter 2, Section 3).

Other Ways to Help

- Offer pacifier for sucking practice between feedings (Appendix 9G).
- Offer short breaks for burping and positive interaction if baby has trouble slowing down feeds.

Remember: Some babies aspirate and do not cough, choke or gag. This is called "silent aspiration." Caregivers must look for other signs a baby may be aspirating during and around feedings such as a wet or gurgly voice or breathing, chronic wet or gurgly voice or breathing, watery eyes, change in skin color, frequent sickness and poor weight gain and growth.

For more information about swallowing and safety precautions, refer to Chapter 1, Section 2.

For more information about thickening liquids, refer to Chapter 1, Section 9 and Appendix 9E.

CHALLENGE NO. 6: THE BABY WHO FREQUENTLY SPITS UP

HOW TO IDENTIFY: Gastroesophageal reflux (GER) happens when food from the stomach comes back up into the throat causing pain and discomfort. Gastroesophageal reflux disease (GERD) is a more serious and long-lasting form of GER and may prevent a baby from feeding well and gaining weight. These babies tend to spit up often (sometimes after every feeding), they appear uncomfortable and seem hungry but frustrated when feeding. Often, over time, these babies may refuse to eat because it is such an uncomfortable and stressful experience. May include babies with low muscle tone (cerebral palsy), babies exposed to substances such as drugs or alcohol in the womb or babies born early or with neurodevelopmental delays.

Any baby can have reflux – and many babies show very few clear signs that they are struggling and in pain.

COMMON FEEDING PROBLEMS:

- Uncontrollable vomiting
- Spitting up very frequently (after every meal, in between feedings)
- Frequent spitting up can lead to eventual refusal of the bottle
- Fussiness or irritability before and during feedings (baby acts hungry, but refuses bottle when offered)
- Poor growth and slow weight gain

<u>Remember:</u> Not all babies who spit up have GER or GERD. There are "happy spitters" and "unhappy spitters." "Happy spitters" are babies who spit up often, but it doesn't bother them or impact feedings. They continue to eat and do not appear in pain or upset. "Unhappy spitters" are babies who likely have GER or GERD. These babies act like they want to eat, but appear afraid or upset when offered a bottle. It's important to immediately identify a baby with GER/GERD so appropriate action can be taken (medications, positioning, special formulas, etc.) that will make feedings more comfortable and positive.

HOW TO SUPPORT

Feeding and Timing

- Offer smaller feedings more frequently such as 60 ml or 2 fl. oz. every two hours especially if larger volumes lead to increased spitting up.
- Pace meals to reduce occurrence of spitting up (Appendix 9J).
- Limit all feedings to 30 minutes or less.

Equipment

- Choose a nipple/bottle that offers a flow to match baby's abilities. Slower flows are usually easier for these babies (Chapter 1, Section 5; Appendix 9G).
- Try other strategies first. If all other strategies fail, consider carefully trying to thicken liquids to slow flow (and use with a faster flow nipple). **Do not cut nipples to speed the flow** (Chapter 1, Section 9; Appendices 9C and 9E).

Positioning

- Follow key elements of positioning for babies (Chapter 1, Section 1; Chapter 2, Section 3).
- Feed baby in upright position – at least 30-45-degree angle. Do not feed baby lying down on his back or without any elevation.
- Feed baby using an elevated left side-lying position (Chapter 1, Section 1; Chapter 2, Section 3).
- Keep baby upright for at least 15-45 minutes after all feedings to keep liquids in his stomach (holding baby or using carefully constructed wedge or rolled up blanket or towel that offers adequate elevation).

Other Ways to Help

- Offer pacifier before and after feedings to help baby manage reflux secretions, reduce spit-ups and be more comfortable (Appendix 9G).
- Offer short breaks for burping and positive interaction if baby has trouble slowing down feeds.
- Move baby as little as possible (and not on stomach) after feedings to avoid spit-ups and increase comfort.

A caregiver carefully feeds a premature baby in an elevated position to help him more comfortably take his bottle. Because he was born early, he has a sensitive system and is more likely to spit up after feedings.

CHALLENGE NO. 7: SPECIAL POPULATION: THE BABY WITH CLEFT LIP AND/OR PALATE

HOW TO IDENTIFY: These babies are born with birth defects that can affect their lips, noses and/or roofs of their mouths. Some cleft palates can be very difficult to see because of where they are located in a baby's mouth. Because of these clefts (slits, openings), babies tend to have problems forming a tight seal around a nipple (cleft lip) and creating the necessary suction needed for efficiently sucking liquid from bottles (cleft palate).

COMMON FEEDING PROBLEMS:

- Swallowing too much air → gassy, burping often
- Not closing lips around nipple
- Food and liquid come out of mouth messy feedings
- Feeding refusals
- Difficulty latching to nipple and sucking
- Choking, coughing and possible aspiration
- Vomiting and spitting up
- Liquid coming out of mouth and/or nose → messy feedings
- Frequent ear infections, ear drainage and/or difficulty hearing
- Poor weight gain and growth

A young baby with cleft lip is fed by his caregiver using a specialty feeder that helps him form a better seal on the nipple for feedings.

HOW TO SUPPORT

Feeding and Timing

- Feed baby using rate that does not allow liquid to leak out of mouth or nose.
- Feed baby frequently (every 2 to 3 hours).
- Offer smaller feedings more frequently, such as 60 ml or 2 fl. oz. every two hours if larger volumes lead to increased spitting up or leakage from mouth and/or nose.
- Pace meals to reduce occurrence of leakage or aspiration (Appendix 9J).
- Limit all feedings to 30 minutes or less.

Equipment

- Use a nipple that offers a flow to match baby's abilities. Slower flows can often be easier, try nipples with lower numbers on them such as a zero or one (Chapter 1, Section 5; Appendix 9G).
- Use a wider based nipple (Chapter 1, Section 5; Appendix 9G).
- Use a nipple/bottle baby can "bite on" to get milk out (Chapter 1, Section 5; Appendix 9G).
- Use a specialty bottle for cleft lip/ palate (Appendix 9G).

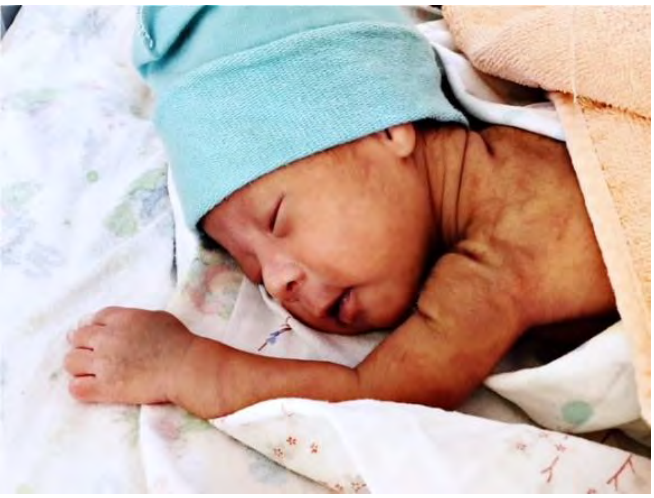
Positioning

- Follow key elements of positioning for babies (Chapter 1, Section 1; Chapter 2, Section 3).
- Feed in an elevated side-lying position (Chapter 1, Section 1; Chapter 2, Section 3).
- Feed in a more upright position – at least 45-degree angle. Do not feed baby lying down on her back or without any elevation (Refer to illustration below).
- Keep baby upright for at least 15-45 minutes after all feedings to keep liquids in her stomach (holding baby or using carefully constructed wedge or rolled up blanket or towel that offers adequate elevation).

Other Ways to Help

- Move baby as little as possible (and off of stomach) after feedings to reduce spit-ups and increase comfort.
- Burp baby frequently.
- Direct nipple downward toward intact side of baby's mouth.

This image shows how to hold a baby with cleft lip or palate. The 45-degree angle helps keep liquids in a baby's mouth and stomach and reduces the chance of liquids flowing back up through the nose.



CHALLENGE NO. 8: SPECIAL POPULATION: THE BABY WHO IS BORN EARLY

HOW TO IDENTIFY: Babies who are born premature or early are born before 37 weeks gestation. Depending on how early the baby is born and how much she weighs, feeding difficulties are common and will vary in their complexity. When babies are born early, their bodies aren't fully developed. This means that feeding skills are also usually not fully developed, and they will need additional time and support in order to be safe and successful feeders.

COMMON FEEDING PROBLEMS:

- Gagging when taking the bottle
- Difficulty latching to the nipple
- Difficulty sucking (i.e., weak suck)
- Difficulty coordinating sucking, swallowing and breathing
- Difficulty swallowing, with increased instances of coughing, choking or gasping
- Difficulty breathing
- Frequent vomiting and spitting up
- Falling asleep during feedings
- Easily overwhelmed from environment
- Sensitive around mouth or face due to frequent medical procedures
- Fussy and irritable
- Poor weight gain and growth

HOW TO SUPPORT

Feeding and Timing

- Offer smaller feedings more frequently, such as 60 ml or 2 fl. oz. every 1-3 hours.
- Wake baby at night for feedings.
- Pace feedings to allow regular rest breaks (limiting entire feeding to 30 minutes total) (Appendix 9J).
- Limit all feedings to 30 minutes or less.

Equipment

- Use a nipple/bottle that offers flow to match baby's abilities. Slower flows can often be easier (Chapter 1, Section 5; Appendix 9G).
- Use a smaller, softer nipple and shorter bottle (120 ml or 4 fl. oz. bottle) (Chapter 1, Section 5; Appendix 9G).
- Use a nipple/bottle baby can "bite on" to get milk out (Chapter 1, Section 5; Appendix 9G).
- Use a specialty feeder bottle such as Preemie nipple and bottle (Appendix 9G).

Positioning

- Follow key elements of positioning for babies (Chapter 1, Section 1; Chapter 2, Section 3).
- Hold baby very upright, almost at a 90-degree angle.
- Swaddle baby with hands near his face and hips bent (Chapter 2, Section 3).
- Keep liquid in bottle in a neutral position to allow neutral flow and do not point straight bottle down.
- Hold bottle like a pencil and place your finger under bony part of baby's chin.

Other Ways to Help

- Feed in a calm place with low light and sound and limited visual stimulation (Chapter 1, Section 3; Appendix 9K).
- Offer pacifier or baby's fingers before feedings to help baby take nipple (Appendix 9G).
- Offer pacifier or hands for sucking practice between feedings (Appendix 9G).
- Use rhythmic, repetitive movements and sounds to calm baby.
- Encourage sucking using Lip Stimulation/Stroking Technique (Appendix 9J).
- Support sucking by using Lip and Cheek Support Technique (Appendix 9J).
- Do not force baby to eat. Calm baby before every feeding.

A tiny baby born early is asleep under a special light treatment used to treat jaundice. Babies born early often need many medical procedures to stay alive, which can lead to very sensitive sensory systems and feeding challenges.

CHALLENGE NO. 9: SPECIAL POPULATION: THE BABY WHO IS BORN EXPOSED TO SUBSTANCES

HOW TO IDENTIFY: Substances, such as drugs or alcohol, hurt a baby's developing body when in a mother's belly. Babies who are exposed to drugs (prescription and/or illegal), and/or alcohol often have feeding challenges. Depending on what the baby was exposed to, how much and how often, the feeding difficulties will vary in their complexity. These babies tend to have very sensitive systems because of the substance exposure, leading to frequently spitting up, discomfort when feeding and difficulty staying calm when fed.

COMMON FEEDING PROBLEMS:

- Difficulty sucking or having a weak suck
- Difficulty coordinating sucking, swallowing and breathing when feeding
- Difficulty swallowing, with possible choking and/or gasping
- Frequent vomiting and spitting up
- Falling asleep during feedings
- Can become easily overwhelmed during feedings
- Fussy, irritable or colicky
- Feeding refusals
- Poor growth and weight loss
- Poor appetite and slow weight gain

After being exposed to drugs in the womb, this young baby had trouble getting her body calm and ready for feedings. Caregivers realized that she fed best when she was swaddled, offered a pacifier before feedings and when offered a bottle at the first sign of her hunger. She also fed better in a quiet room with few sounds and visual distractions.

HOW TO SUPPORT

Feeding and Timing

- Offer regular, frequent feedings possibly every 1-3 hours.
- Wake baby at night for feedings.
- Pace feedings to allow regular rest breaks (Appendix 9J).
- Limit all feedings to 30 minutes or less.

Equipment

- Use a nipple that offers flow to match baby's abilities. Slower flows can often be easier (Chapter 1, Section 5; Appendix 9G).
- Use a smaller, softer nipple and shorter bottle (120 ml or 4 fl. oz. bottle) (Chapter 1, Section 5; Appendix 9G).
- Use a specialty bottle such as a Preemie nipple and bottle (Appendix 9G).

Positioning

- Follow key elements of positioning for babies (Chapter 1, Section 1; Chapter 2, Section 3).
- Feed baby in semi-upright or upright position.
- Swaddle baby with hands near her face and hips bent (Chapter 2, Section 3).
- Hold baby snuggly if not swaddled.

Other Ways to Help

- Feed in a calm place with low light and sound and limited visual stimulation (Chapter 1, Section 3; Appendix 9K).
- Offer a pacifier or hands regularly and help baby use for soothing and sucking practice (Appendix 9G).
- Offer pacifier or baby's finger before feedings to help baby take nipple (Appendix 9G).
- Provide a pacifier or bring baby's thumb or hands to mouth to help soothe after feedings.
- Use rhythmic, repetitive movements and sounds to calm and soothe baby (Appendix 9K).
- Do not force baby to eat. Calm baby before offering bottles.

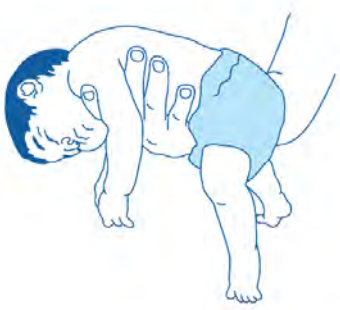
Remember: When making changes to how you are feeding a baby, start by changing one element at a time. Too many changes all at once can be stressful for a baby and it can make it hard to know what changes worked well and which did not.

CHALLENGE NO. 10: THE CHILD WHO HAS PROBLEMS WITH MUSCLE TONE

HOW TO IDENTIFY: Children can have low (hypotonia = floppy) or high (hypertonia = tight, rigid) muscle tone. When a child has trouble controlling the tone in his muscles, this can make feeding activities challenging. Sitting upright, holding your head in a neutral position and using your tongue and lips for managing foods are all examples of activities that can be hard when tone is either low or high. These children can also be at higher risk for swallowing problems and aspiration because the muscles that assist with swallowing can be floppy or tight. Some children move back and forth between high and low tone. This is called "fluctuating tone" and it is most commonly seen in babies with specific types of cerebral palsy. May include children with cerebral palsy, damaged spinal cords or brain injuries, Down syndrome, heart (cardiac) conditions or children who are medically fragile, born early or who are exposed to substances in the womb.

MOST COMMON REASONS FOR HIGH AND LOW MUSCLE TONE

Hypotonia → Low Tone	*Hypertonia → High Tone*
Cerebral palsy	Cerebral palsy
Muscular dystrophy	Spinal cord injuries
Down syndrome (Trisomy 21)	Brain injuries
Autism spectrum disorders	Substance exposures in womb



LOW TONE: A child with **hypotonia** will often have a floppy quality or "rag doll" feeling when they are held. They may lag behind in acquiring fine and gross motor skills such as holding their heads up, balancing themselves, grabbing and holding onto foods to feed themselves or getting into a sitting position and remaining seated without falling over. They may also have trouble with feeding and swallowing. For example, they may be unable to suck or chew, become fatigued with eating and older children may stuff large amounts of food in their mouths resulting in choking or gagging). These children need extra support such as greater stimulation to "wake up" their bodies for feeding and good positioning that meets their individual needs.

COMMON FEEDING PROBLEMS (LOW TONE):

- Difficulty maintaining stable positions for feedings
- Difficulty sucking or having a weak suck
- Difficulty swallowing with possible coughing, choking or gagging
- Difficulty transitioning to solids and/or managing more complex food textures
- Tire quickly and may stop feedings early → decreasing volume of feedings and decreasing calorie consumption
- Less sensitive to sensory input such as how things taste, smell, feel, sound, etc.
- Messy meal times with frequent loss of liquid or food out of mouth
- Excessive drooling and open mouth posture
- Spitting out food and/or holding food in their mouths
- Overstuffing of food in mouth
- Poor growth and/or slow weight gain

HIGH TONE: A child with **hypertonia** will often have an arched body, clenched fists and a clenched or thrusted jaw. They may lag behind in acquiring fine and gross motor skills such as holding their heads upright and forward, opening their hands, straightening their arms and legs or getting into a sitting position and remaining seated without falling over. They may also have trouble with feeding and swallowing. For example, they may be unable to suck or chew, become fatigued with eating, difficulty using spoons and cups and sometimes aspirating foods or liquids. These children need extra support such as reduced stimulation and good positioning that meets their individual needs.

COMMON FEEDING PROBLEMS (HIGH TONE):

- Difficulty sucking such as having an uncoordinated or not well controlled suck
- Difficulty swallowing with possible coughing, choking, gasping or gagging
- Difficulty transitioning to solids and/or managing more complex food textures
- Tire quickly and may stop feedings early → decreasing volume of feeding and decreasing calorie consumption
- More sensitive to sensory input such as how things taste, smell, feel, sound, etc.
- Messy meal times with frequent loss of liquid or food out of mouth
- Difficulty closing their mouth using the lips and jaw, in addition to having trouble removing foods from utensils and positioning lips for drinking
- Poor growth and/or slow weight gain

HOW TO SUPPORT LOW AND HIGH TONE

Feeding and Timing

- Offer smaller, more frequent feedings if child fatigues easily.
- Use a rate of feeding that matches rate child can handle.
- Pace feedings to allow regular rest breaks (Appendix 9J).
- Feed smaller meals more frequently during the day.
- Limit all feedings to 30 minutes or less.

Equipment

- flows can often be easier (Chapter 1, Section 5; Appendix 9G).
- Use a small cup or spoon for offering blended foods and liquids if spoon feeding is difficult (Chapter 1, Sections 6 and 7).
- Offer thickened liquids and blended diets if chewing and swallowing are difficult (Chapter 1, Section 9; Appendices 9C, 9E).
- Use a chair or seat that provides optimal positioning and support (Chapter 1, Section 1; Appendices 9G, 9I).
- Use extra physical supports for seated child such as rolled up towels or blankets, pillows, foam, stuffed animals, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use foot support for seated child such as boxes, books, suitcases, benches, stools, containers, wood, etc. (Chapter 1, Section 1; Appendix 9I).
- Use spoons that match size of the child's mouth (Chapter 1, Section 6; Appendices 9G, 9H).
- Use cut-out "nosey" cups (Chapter 1, Section 7; Appendix 9G).

Positioning

- Follow key elements of positioning for babies and children (Chapter 1, Section 1; Chapter 2, Section 3; Appendix 9L-4).
- Feed child in upright position at a greater than 45-degree angle.
- Sit at eye-level with the child while feeding.
- Do not let a child with low tone lean or fall forward or to the side with her head and neck.
- Do not let a child with high tone extend her head and neck backward or to the side.

Other Ways to Help

- **Low tone:** Use activities that gently wake child before feedings or that wake child if she has fallen asleep (Appendix 9K).
- **High tone:** Use activities that gently calm child before feedings or that calm her if she has gotten excited or overstimulated (Appendix 9K).
- **Low tone:** Feed in a place with bright lighting and/or more sound (Chapter 1, Section 3).
- **High tone:** Feed in a calm place with low lighting, less sound and limited visual stimulation (Chapter 1, Section 3).
- **Low tone:** Interact with child through touch, eye gaze, movement and sounds using faster rates of movement, louder voices/sounds and increased animation from caregivers (Chapter 1, Section 3).

- **High tone:** Interact with child through touch, eye gaze, movement and sounds using slower rates of movement, softer voices or sounds and reduced animation from caregivers (Chapter 1, Section 3).
- Encourage self-feeding when possible to build skills (Chapter 1, Section 8; Chapter 3, Section 2; Appendix 9I).
- Offer different food and liquid flavors or textures when a child is ready and able to manage (Appendix 9F).
- Make changes to the type of bottle, nipple, cup and/or spoon if challenges persist.
- Never force feed a child.

Remember: Positioning for every child must be individualized. Always find the best position by considering the child's capacity and safety, and seek consultation with a feeding specialist such as a physical, occupational or speech therapist when in doubt.

The same bottle, nipple, cup and spoon do not work for every child.

For more specific information on feeding positioning across different ages, refer to Chapters 2, 3, 4 and 5.

Where the feeder sits matters. Sit at eye level facing a child so that he does not need to extend his head and neck to see you and reach the food or liquid.

CHALLENGE NO. 11: THE CHILD WHO HAS PROBLEMS WITH THE STRUCTURES OF THE MOUTH

HOW TO IDENTIFY: Children may have feeding difficulties due to structural differences in their bodies. Problems with the jaw, tongue, lips, cheeks and palate may lead to problems with feeding such as difficulty sucking, biting, chewing, swallowing, and eating different food textures. This may include children with a variety of syndromes or conditions such as Down syndrome, cerebral palsy, autism spectrum disorders, neurodevelopmental delays, children who are medically fragile, born early or who are exposed to substances in the womb.

COMMON STRUCTURAL PROBLEMS OF THE FACE AND MOUTH

JAW	TONGUE	LIPS AND CHEEKS	PALATE
⇒ Jaw thrust ⇒ Tonic bite	⇒ Tongue thrust ⇒ Tongue retraction	⇒ Lip retraction ⇒ Cleft lip ⇒ Poor lip closure	⇒ Cleft palate

A child shows a tonic bite while being fed by a caregiver due to sensitivity to a spoon.

JAW: When the jaw does not work properly it can make feeding challenging for a child, especially when they begin to eat solid foods. Problems with the jaw can also make it hard to open or close the mouth, lead to accidental biting of objects and self, make feeding tiring, create discomfort or pain and restrict a child's ability to efficiently learn how to bite and chew foods[9].

COMMON JAW PROBLEMS: JAW THRUST AND TONIC BITE

JAW THRUST: The jaw opens through a strong down, out and forward movement. It occurs most often when foods are offered to a child for biting. It can also happen if a child has differences in muscle tone, such as hypertonia. When a child has increased abnormal tone in the jaw muscles, pressing up on the jaw only makes the jaw thrusting worse.

COMMON FEEDING PROBLEMS (JAW THRUST):

- Difficulty removing food off of a spoon or fork
- Difficulty positioning the lips, tongue and jaw for cup drinking
- Difficulty closing the mouth for swallowing
- Difficulty transitioning to solids and/or eating more complex food textures
- Tendency to tire quickly, stop feedings early and consume a lower volume of food or liquid and therefore consume fewer calories
- Messy meal times with frequent loss of liquid or food out of the mouth
- Excessive drooling
- More sensitive to sensory input such as how things taste, smell, feel, sound, look, etc.
- Poor growth and/or slow weight gain

TONIC BITE: When the teeth are touched by an object (food, finger, spoon, cup), the jaw moves up into a tightly clenched position. This makes it hard for a child to open her mouth for eating. Typically, children with hypertonia are more likely to have a tonic bite.

COMMON FEEDING PROBLEMS (TONIC BITE):

- Difficulty transitioning to solids and/or eating more complex food textures
- Difficulty using spoons and cups
- More sensitive to sensory input such as how things taste, smell, feel, sound, look, etc.
- Difficulty getting enough to eat, as caregivers assume child is indicating with this behavior that she is not hungry
- Poor growth and/or slow weight gain

MOST COMMON REASONS FOR JAW THRUST AND TONIC BITE

ISSUES	REASONS
Physical	⇒ Poor positioning ⇒ Hypertonic (tight) body patterns ⇒ Structural/anatomy differences that make proper positioning difficult
Sensory	⇒ Overstimulation from environment causes thrust and bite responses ⇒ Direct Stimulation by touch of food, drink, cup, utensil to mouth, face or body
Interaction	⇒ Child behavior used to communicate with caregiver ⇒ Child's way to communicate readiness to eat, need for another bite, excitement, pleasure with food/mealtime or when finished eating

Remember: When a child has a tonic bite, do not pull on the bottle, cup or spoon to release. The child's reflex will only cause them to bite down harder. Use the Tonic Bite Technique from Chapter 9.

HOW TO SUPPORT JAW THRUST AND TONIC BITE

Feeding and Timing

- Use a rate of feeding that matches rate child can handle
- Pace feedings to allow regular rest breaks (Appendix 9J).
- Limit all feedings to 30 minutes or less

Equipment

- Use a chair or seat that provides optimal positioning and support (Chapter 1, Section 1; Appendices 9G, 9I).
- Use extra postural support for seated child such as rolled up towels or blankets, pillows, foam, stuffed animals, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use foot support for seated child such as boxes, books, suitcases, benches, stools, containers, wood, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use spoons that match size of the child's mouth (Chapter 1, Section 6; Appendices 9G, 9H).
- Non-metal spoons may work best for children with sensitivities to metal or cold materials (Chapter 1, Section 6; Appendices 9G, 9H).
- Use cut-out "nosey" cups (Chapter 1, Section 7; Appendix 9G).

Positioning

- Follow key elements of positioning for babies and children (Chapter 1, Section 1; Chapter 2, Section 3; Appendix 9L-4).
- Feed child in upright position at a greater than 45-degree angle.
- Sit at eye-level with the child while feeding.
- Do not let a child with jaw thrust or tonic bite extend her head and neck backward.

Other Ways to Help

- Jaw thrust: Help child find other ways to express her wants and needs using sign language, gestures, pictures or sounds and words (Chapters 2, 3, 4, 5, Section 4; Chapter 6, Section 3).
- Jaw thrust: Use the L-shape Technique (Appendix 9J).
- Jaw thrust: Provide gentle pressure under the chin using 1-2 fingers while the child takes a bite or sip.
- Tonic bite: Use Tonic Bite Spoon/Cup Removal Technique (Appendix 9J) .
- Feed in a calm place with low lighting, less sound and limited visual stimulation (Chapter 1, Section 3).
- Interact with child through touch, eye gaze, movement and sounds using slower rates of movement, softer voices or sounds and reduced animation from caregivers (Chapter 1, Section 3).
- Increase child's tolerance to sensory input (Chapter 1, Section 3).
- Make changes to the type of bottle, nipple, cup and/or spoon if challenges persist.

<u>Remember:</u> Good positioning and a quiet calm environment can help reduce high muscle tone or physical response, including the strength and frequency of jaw thrust.

TONGUE: When the tongue does not work properly it can make mealtimes hard for children and their caregivers. Problems with the tongue can create challenges with bottle feeding, cup drinking and spoon feeding. It can be difficult for a bottle, cup or spoon to fit into a child's mouth. The airway can be blocked by the tongue for eating and breathing. The tongue can interfere with necessary movements for sucking and swallowing, or it can push food and liquid out of the mouth. It can also disrupt the process of moving food in the mouth to prepare it for eating and swallowing[9].

COMMON TONGUE PROBLEMS:

TONGUE THRUST AND TONGUE RETRACTION

TONGUE THRUST: Strong protrusion (forward pushing) of the tongue out of the mouth.

TONGUE RETRACTION: Pulling of the tongue far back in the mouth toward the throat.

COMMON FEEDING PROBLEMS (TONGUE THRUST AND TONGUE RETRACTION):

- Difficulty allowing a nipple, cup and/or spoon to enter the mouth
- Difficulty swallowing with possible coughing, choking, gagging or gasping
- Difficulty transitioning to solids and/or eating more complex food textures
- Messy meal times with foods or liquids frequently pushed out of the mouth (*tongue thrust*) or falling out of mouth (*tongue retraction*)
- More sensitive to sensory input such as how things taste, smell, feel, sound, etc.
- Poor growth and/or slow weight gain

MOST COMMON REASONS FOR TONGUE THRUST AND TONGUE RETRACTION

ISSUES	REASONS
Physical	⇒ Low tone or high tone ⇒ Hyperextension of the head and neck
Sensory	⇒ Hypersensitivity (increased sensitivity) in the mouth ⇒ Contact of food/liquid/cup/spoon causes thrust response ⇒ Sensitivity or avoidance of food or liquid texture, taste or temperature causes thrust or retraction responses ⇒ Overstimulating environment causes thrust and retraction responses
Interaction	⇒ Child behavior used to communicate with caregiver ⇒ Child's way to communicate dislike, fullness (not hungry), upset, feeling unsafe, avoiding being fed, or wanting more food
Oral Control	⇒ When a child with a retracted tongue position tries to move their tongue forward, they push the tongue too far forward leading to a tongue thrust

Remember: Proper positioning will reduce tongue thrust. Always first ensure that a child is in a well-supported position for feedings and that his head is in a slightly forward, neutral position.

HOW TO SUPPORT TONGUE THRUST AND RETRACTION

Feeding and Timing

- **Retraction:** Feed using a slow and patient rate.
- Use a rate of feeding that matches rate child can handle.
- Pace feedings to allow regular rest breaks (Appendix 9J).
- Limit all feedings to 30 minutes or less.

Equipment

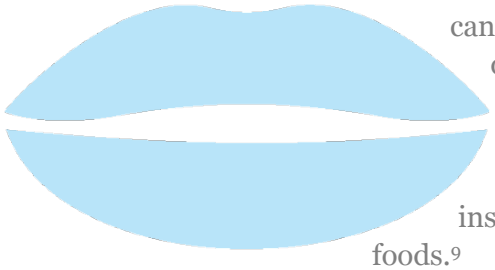
- **Thrust:** Place cups and spoons on child's lower lip below the tongue.
- Use a chair or seat that provides optimal positioning and support (Chapter 1, Section 1; Appendices 9G, 9I).
- Use extra postural support for seated child such as rolled up towels/blankets, pillows, foam, stuffed animals, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use foot support for seated child such as boxes, books, suitcases, benches, stools, containers, wood, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use spoons that match size of the child's mouth (Chapter 1, Section 6; Appendices 9G, 9H).
- Non-metal spoons may work best for children with sensitivities to metal or cold materials (Chapter 1, Section 6; Appendices 9G, 9H).
- Use cut-out "nosey" cups (Chapter 1, Section 7; Appendix 9G).

Positioning

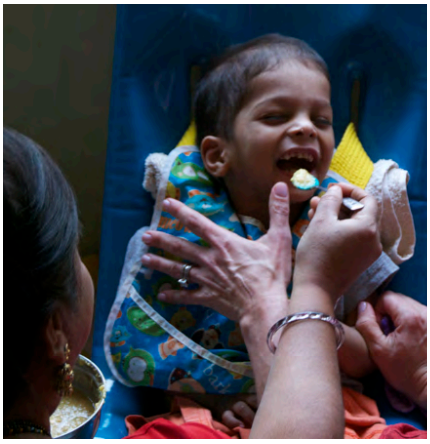
- Follow key elements of positioning for babies and children (Chapter 1, Section 1; Chapter 2, Section 3; Appendix 9L-4).
- Feed child in an upright position at a greater than 45-degree angle.
- Reduce the amount of high tone through good positioning.
- Sit at eye-level with the child while feeding.
- Do not let a child with tongue thrust or retraction extend his head and neck backward.

Other Ways to Help

- **Tongue Thrust:** Provide gentle pressure under the chin using 1-2 fingers while the child takes a bite or sip.
- **Tongue Thrust:** Use the Press Down Technique for spoon and cup drinking (Appendix 9J).
- **Tongue Thrust:** Try offering the spoon from the side paired with downward pressure.
- Feed in a calm place with low lighting, less sound and limited visual stimulation (Chapter 1, Section 3).
- Try helping the child become calm before the meal.
- Interact with child through touch, eye gaze, movement and sounds using slower rates of movement, softer voices or sounds and reduced animation from caregivers (Chapter 1, Section 3).
- Increase child's tolerance to sensory input (Chapter 1, Section 3).
- Make changes to the type of bottle, nipple, cup and/or spoon if challenges persist.



LIPS AND CHEEKS: When the lips and cheeks do not work properly feeding can be challenging for a child. Poor lip and cheek control can lead to difficulty grabbing and holding onto foods in the mouth, preparing foods in the mouth for swallowing, challenges creating pressure in the mouth to swallow, loss of saliva and food or liquid out of the mouth, increased potential for food to become stuck in the cheeks, increased instances of coughing and choking and reduced efficiency with chewing foods.[9]



COMMON LIP AND CHEEK PROBLEMS:

LIP RETRACTION AND POOR LIP CLOSURE

LIP RETRACTION: The lips are pulled back tightly making it difficult for the lips and cheeks to assist with sucking, removing food off of utensils, drinking from a cup and/or keeping food or liquid inside of the mouth.

POOR LIP CLOSURE: The inability to close the lips when desired. Children with poor lip closure frequently keep their mouths open (during and outside of feedings). Closing your lips is necessary for eating because it assists with grabbing and removing food or liquids, chewing and swallowing.

COMMON FEEDING PROBLEMS (LIP RETRACTION AND POOR LIP CLOSURE):

- Difficulty sucking
- Difficulty removing food from a cup and/or utensil
- Difficulty munching, chewing and moving food around in the mouth
- Difficulty swallowing with possible coughing, choking or gagging
- Difficulty transitioning to solids and/or managing more complex food textures
- Messy meal times with frequent loss of liquid or food out of mouth
- More sensitive to sensory input such as how things taste, smell, feel, sound, etc. (*retraction*)
- Poor growth and/or slow weight gain

MOST COMMON REASONS FOR LIP RETRACTION AND POOR LIP CLOSURE

ISSUES	REASONS
Physical	⇒ High tone ⇒ Poor positioning with too much extension in the hips ⇒ *Lip retraction:* neck hyperextension
Sensory	⇒ Overstimulating environment causes retraction response
Interaction	⇒ Child's behavior used to communicate with caregiver ⇒ *Lip retraction:* way to communicate excitement, happiness, hunger or to stop the feeding ⇒ *Poor lip closure:* way to communicate: hunger, fullness (not hungry), feelings of unsafety, dislike or happiness

HOW TO SUPPORT LIP RETRACTION AND CLOSURE

Feeding and Timing 	○ Use a rate of feeding that matches rate child can handle. ○ Pace feedings to allow regular rest breaks (Appendix 9J). ○ Limit all feedings to 30 minutes or less.
Equipment 	○ Use a chair or seat that provides optimal positioning and support (Chapter 1, Section 1; Appendices 9G, 9I). ○ Use extra postural support for seated child such as rolled up towels or blankets, pillows, foam, stuffed animals, etc. (Chapter 1, Section 1; Appendices 9G, 9I). ○ Use foot support for seated child such as boxes, books, suitcases, benches, stools, containers, wood, etc. (Chapter 1, Section 1; Appendices 9G, 9I). ○ Use spoons that match size of the child's mouth (Chapter 1, Section 6; Appendices 9G, 9H). ○ Use cut-out "nosey" cups (Chapter 1, Section 7; Appendix 9G).
Positioning 	○ Follow key elements of positioning for babies and children (Chapter 1, Section 1; Chapter 2, Section 3; Appendix 9L-4). ○ Feed child in an upright position at a greater than 45-degree angle. ○ Do not let a child with lip retraction or poor lip closure extend his head and neck backward.

Other Ways to Help

- **Lip retraction:** Feed in a calm place with low lighting, less sound and limited visual stimulation (Chapter 1, Section 3).
- **Poor lip closure:** Feed in a more alerting place with brighter lighting and more sound (Chapter 1, Section 3).
- **Lip retraction:** Interact with child through touch, eye gaze, movement and sounds using slower rates of movement, softer voices or sounds and reduced animation from caregivers (Chapter 1, Section 3).
- **Poor lip closure:** Interact with child through touch, eye gaze, movement and sounds using faster rates of movement, louder voices or sounds and increased animation from caregivers (Chapter 1, Section 3).
- **Lip retraction:** Increase child's tolerance to sensory input (Chapter 1, Section 3).
- **Lip retraction:** Use activities that help calm a child before a feeding (Appendix 9K).
- **Poor lip closure:** Use activities that help wake child before a feeding (Appendix 9K).
- **Poor lip closure:** Use Lip Closure Technique (Appendix 9J).
- **Poor lip closure:** Use L-shape Technique (Appendix 9J).
- **Poor lip closure:** Use Pat-Pat Facial Massage Technique (Appendix 9J).
- Make changes to the type of bottle, nipple, cup and/or spoon if challenges persist.

PALATE: When the palate is not formed correctly, feeding challenges can arise for children. A problematic palate can make sucking challenging, and it can lead to a loss of foods and/or liquids through the nose or even into the lungs. Children with cleft palates can be highly sensitive to touch around the face and mouth because of frequent medical procedures. Refer to cleft lip and/or palate feeding for babies earlier in this chapter for more information about support.

COMMON PALATE PROBLEMS: CLEFT PALATE

CLEFT PALATE: A hole in the roof of the mouth that creates challenges for swallowing and also can lead to food and liquid escaping into the nose or lungs.

COMMON *FEEDING PROBLEMS (PALATE):*

- Difficulty swallowing with possible choking, coughing and aspiration
- Difficulty transitioning to solids and/or managing more complex food textures
- Vomiting and spitting up
- Messy feedings with liquid/food coming out of the mouth and/or nose

- Food or liquid refusals
- Frequent ear infections, ear drainage and/or difficulty hearing
- Poor growth and/or slow weight gain

HOW TO SUPPORT CLEFT PALATE (THE OLDER CHILD)

Feeding and Timing

- Feed child using rate that does not allow food or liquid to leak out of mouth or nose.
- Use a rate of feeding that matches rate child can handle and does not cause leakage or aspiration.
- Liquids and foods should not leak out of a child's nose.
- Limit all feedings to 30 minutes or less.

Equipment

- Use a chair or seat that provides optimal positioning and support (Chapter 1, Section 1; Appendices 9G, 9I).
- Use extra postural support for seated child such as rolled up towels or blankets, pillows, foam, stuffed animals, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use foot support for seated child such as boxes, books, suitcases, benches, stools, containers, wood, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use spoons that match size of the child's mouth (Chapter 1, Section 6; Appendices 9G, 9H).
- Use a specialized feeder system, syringe or cup such as a "nosey" cut-out cup or bite-valve cup (Chapter 1, Section 7; Appendix 9G).

Positioning

- Follow key elements of positioning for babies and children (Chapter 1, Section 1; Chapter 2, Section 3; Appendix 9L-4).
- Feed child in an upright position at a greater than 45-degree angle.
- Keep child upright for 15-45 minutes following meals to keep food or liquid down in her stomach.

Other Ways to Help

- Increase child's tolerance to sensory input (Chapter 1, Section 3).
- Encourage self-feeding when possible to increase child's comfort. (Chapter 1, Section 8; Chapters 3 and 4, Sections 2).
- Offer different food or liquid flavors and textures when a child is ready and able to manage (Appendix 9F).
- Watch for leakage from nose and signs of aspiration such as coughing, choking wet voice or breathing, etc. Modify food textures and/or liquids to reduce risk of aspiration and leakage (Chapter 1, Section 2; Appendix 9E).
- Make changes to the type of bottle, nipple, cup and/or spoon if challenges persist.

<u>Remember:</u> When feeding challenges arise, always consider positioning, rate and volume. Change one of these elements at a time and determine if the problem is solved or needs additional support.

CHALLENGE NO. 12: THE CHILD WHO HAS A SENSITIVE SENSORY SYSTEM

HOW TO IDENTIFY: Every child has a unique sensory system. Children can have sensory systems that are hyporeactive (under-stimulated) or hyperreactive (over-stimulated). Problems with a child's sensory system occur when the body does not process and control sensory information well. This can make many daily activities difficult and very stressful for a child, especially mealtimes. This may include children with cerebral palsy, Down syndrome, autism spectrum disorders, fetal alcohol spectrum disorders, children with visual or hearing impairments, children who are medically fragile, born early or who are exposed to substances in the womb[9]

MOST COMMON REASONS FOR HYPOREACTIVITY AND HYPERREACTIVITY

Hyporeactivity → Under Stimulated	*Hyperreactivity → Over Stimulated*
Cerebral palsy (CP) – low tone	Cerebral palsy (CP) – high tone
Down syndrome (Trisomy 21)	Fetal alcohol spectrum disorders (FASD)
Medically fragile babies/prematurity	Substance exposure in womb
Fetal alcohol spectrum disorders (FASD)	Visual and hearing impairments

HYPOREACTIVITY: This is when a child has a lower response to certain sensations than would be expected. Children with lower sensitivities are said to be "under-stimulated" or "hyposensitive." They may not be as sensitive to smells or tastes, or touch and pain no matter how intense the sensation. These children frequently have lower muscle tone and a reduced awareness of foods and liquids in their mouths. This often leads to difficulty eating different food textures, pocketing of food in the cheeks, stuffing of food in the mouth, coughing and choking and messy eating.

HYPERREACTIVITY: This is when a child has a higher response to certain sensations than would be expected. Children with higher sensitivities are said to be "overstimulated" or hypersensitive." They may be more sensitive to smells or tastes or touch and pain, no matter how subtle or soft the sensations. These children frequently have higher muscle tone, and experiences that have led to extra sensitive systems (substance exposure, prematurity). Due to this, these children have an increased awareness of foods and liquids in their mouths, which can often lead to difficulty eating different food textures, trying new foods, avoiding or refusing certain textures or challenges getting a child to eat enough during mealtimes.

COMMON FEEDING PROBLEMS: HYPOREACTIVITY AND HYPERREACTIVITY:

- Tires quickly → stops feedings early → take less volume and fewer calories (*hyporeactivity*)
- Less sensitive to sensory input such as how things taste, smell, feel, sound or look (*hyporeactivity*)
- Messy meal times with more frequent loss of liquids or food from mouth (*hyporeactivity*)
- Excessive drooling and open mouth posture (*hyporeactivity*)
- Spitting out foods or holding ("pocketing") food in their mouths (*hyporeactivity*)
- Picky eating and reduced diet or texture diversity (*hyperreactivity)*
- Avoiding certain flavors, textures, temperatures, smells, etc. (*hyperreactivity*)
- Frequent gagging or vomiting *(hyperreactivity*)
- Frequent tonic bite reflex (*hyperreactivity*)
- Disinterest or dislike touching foods and feeding self (*hyperreactivity*)
- More sensitive to sensory input such as how things taste, smell, feel, sound or look (*hyperreactivity*)

- Spitting out foods and liquids (*hyperreactivity*)
- Difficulty maintaining stable positions for feedings
- Difficulty sucking
- Difficulty swallowing with possible coughing or choking
- Difficulty transitioning to solids and/or managing more complex food textures
- Poor growth and/or slow weight gain

HOW TO SUPPORT SENSITIVE SENSORY SYSTEMS (HYPOREACTIVE AND HYPERREACTIVE)

Feeding and Timing

- Use a rate of feeding that matches rate child can handle.
- Pace feedings to allow regular rest breaks.
- Limit all feedings to 30 minutes or less.

Equipment

- **Hypo:** Offer objects for mouthing and "waking up" child's mouth and face before meals such as a teether, toothbrush, etc. (Appendix 9K).
- **Hyper:** Offer objects for mouthing and desensitizing mouth and face before meals such as a teether, toothbrush, washcloth, etc. (Appendix 9K).
- **Hyper:** Use non-metal spoons such as maroon, plastic, etc., to avoid causing mouth and face sensitivities (Chapter 1, Section 6; Appendices 9G, 9H).
- **Hyper:** Use cups that are not glass or metal to avoid causing mouth and face sensitivities. Use a chair or seat that provides optimal positioning and support (Chapter 1, Section 6; Appendices 9G, 9H).
- Use extra postural support for seated child such as rolled up towels/blankets, pillows, foam, stuffed animals, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use foot support for seated child such as boxes, books, suitcases, benches, stools, containers, wood, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use spoons that match the size of the child's mouth (Chapter 1, Section 6; Appendices 9G, 9H).

Positioning

- Follow key elements of positioning for babies and children (Chapter 1, Section 1; Chapter 2, Section 3; Appendix 9L-4).
- Feed child in an upright position at a greater than 45-degree angle.

Other Ways to Help

- **Hypo:** Use activities that wake and alert child's body before feedings (Appendix 9K).
- **Hyper:** Use activities that calm child's body before feedings or that calm him if he has gotten excited or overstimulate (Appendix 9K).
- **Hypo:** Feed in a brighter place with bright lighting and/or more sound (Chapter 1, Section 3; Appendix 9K).
- **Hyper:** Feed in a calm place with low lighting, less sound and limited visual stimulation (Chapter 1, Section 3; Appendix 9K).
- .
- **Hypo:** Interact with child through touch, eye gaze, movement and sounds using faster rates of movement, louder voices or sounds and increased animation from caregivers (Chapter 1, Section 3; Appendix 9K).
- **Hyper:** Interact with child through touch, eye gaze, movement and sounds using slower rates of movement, softer voices or sounds and reduced animation from caregiver (Chapter 1, Section 3; Appendix 9K).
- **Hypo:** Increase child's awareness of sensory input (Chapter 1, Section 3).
- **Hyper:** Increase child's tolerance to sensory input (Chapter 1, Section 3).

CHALLENGE NO. 13: THE CHILD WHO HAS PROBLEMS BITING AND/OR CHEWING

HOW TO IDENTIFY: These children have trouble biting through solids and developing effective chewing for eating all types of foods. For some children with lots of medical needs, biting and chewing can be very tiring, which means they tend to eat less during meals. Also, biting and chewing requires healthy teeth and gums. For children who have cavities and other tooth and gum problems, eating harder textured foods can be painful, leading to avoidance of these foods. Other reasons for biting and chewing challenges may be linked to high or low tone, sensory issues and/or structural abnormalities. May include children with Down syndrome, cerebral palsy, heart (cardiac) conditions, dental problems, children with visual impairments or who are medically fragile, born early or exposed to substances in the womb.

COMMON FEEDING PROBLEMS: BITING AND CHEWING:

- Difficulty transitioning to solids and/or eating more complex food textures
- Picky eating and reduced diet or texture diversity – avoidance of certain textures
- Gagging and/or vomiting
- Spitting out of foods
- Swallowing foods whole or partially chewed
- Poor growth and/or slow weight gain

HOW TO SUPPORT BITING AND CHEWING

Feeding and Timing

- Use a rate of feeding that matches rate child can handle.
- Pace feedings to allow regular rest breaks (Appendix 9J).
- If child is self-feeding, encourage a slow rate of eating.
- Limit all feedings to 30 minutes or less.

Equipment

- Use a chair or seat that provides optimal positioning and support (Chapter 1, Section 1; Appendices 9G, 9I).
- Use extra postural support for seated child such as rolled up towels/ blankets, pillows, foam, stuffed animals, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use foot support for seated child such as boxes, books, suitcases, benches, stools, containers, wood, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use spoons that match size of the child's mouth (Chapter 1, Section 6; Appendices 9G, 9H).
- Use foods that allow practice for biting and chewing – under careful supervision of a caregiver.
- Use appropriately sized foods for biting and chewing practice.

Positioning

- Follow key elements of positioning for babies and children (Chapter 1, Section 1; Chapter 2, Section 3; Appendix 9L-4).
- Feed child in upright position at a greater than 45-degree angle.

Other Ways to Help

- Offer different food or liquid flavors and textures when a child is ready and able to manage.
- Smaller spoons lead to smaller bites.
- Use activities that help wake and alert a child's body before a feeding such as brushing teeth or chewing on a ChewyTube (Appendix 9K).
- Use facial molding techniques to wake a child's face for eating (Appendix 9J).
- Offer frequent opportunities to explore different textures (see, smell, touch) without any pressure for a child to eat them during meals.
- Offer easier, familiar textures alongside new, harder textures to increase a child's comfort and success (Appendices 9E, 9F).
- Offer small amounts of new textures at a time.
- Offer new textures often across many meals each day to increase a child's comfort, practice, and skill.
- Eat with a child so he can see how others chew food.
- Encourage small bites, which are easier to chew (Appendix 9E).
- Offer long, skinny, crunchy, dissolvable finger foods for chewing practice on the teeth.
- Offer foods a child can safely "bite through" for building jaw strength and chewing skills.
- Offer gentle reminders and praise during meals about a child's chewing ("Chew! Chew! Chew!." "Nice work chewing your food, Angel!").

CHALLENGE NO. 14: THE CHILD WHO HAS PROBLEMS WITH SWALLOWING (THE OLDER CHILD)

HOW TO IDENTIFY: These children may cough while taking liquids from cups or straws during a feeding, directly after a feeding or during both instances. These children may look like they are struggling to eat and breathe or are gasping for breath while feeding. However, sometimes we can't see that they are having problems. May include children with heart (cardiac) conditions, Down syndrome, muscle tone issues such as cerebral palsy, cleft lip and/or palate, children exposed to substances in the womb, born early or with neurodevelopmental delays.

COMMON FEEDING PROBLEMS:

- Difficulty managing their own saliva, excessive drooling
- Excessive loss of liquid during feedings
- Tire easily
- Frequent coughing, choking, gasping and/or gagging
- Wet "gurgly" voice or breathing
- Congested sound when breathing or making sounds
- Fussiness or irritability before and during feedings
- Frequent illnesses
- Poor growth and slow weight

HOW TO SUPPORT SWALLOWING

Feeding and Timing

- Use a rate of feeding that matches rate child can handle.
- Pace feedings to allow regular rest breaks (Appendix 9J).
- If child is self-feeding, encourage a slow rate of eating.
- Limit all feedings to 30 minutes or less.
- Stop feeding if coughing, choking or gasping for air repeatedly occurs.

Equipment

- Use a chair or seat that provides optimal positioning and support (Chapter 1, Section 1; Appendices 9G, 9I).
- Use extra postural support for seated child such as rolled up towels or blankets, pillows, foam, stuffed animals, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Use foot support for seated child such as boxes, books, suitcases, benches, stools, containers, wood, etc. (Chapter 1, Section 1; Appendices 9G, 9I).
- Feed smaller, controlled amounts using a spoon, cup, dropper, syringe or pipette (cut straw) if child coughs or chokes often.
- Try using a different spoon or cup to decrease the incidence of coughing, choking, etc.
- Offer thickened liquids and/or change food textures that match child's skills and allow her to eat safely and easily (Chapter 1, Section 9; Appendices 9C, 9D, 9E, 9F).

Positioning

- Follow key elements of positioning for children (Chapter 1, Section 1; Chapter 2, Section 3; Appendix 9L-4).
- Try a different position that will decrease the incidence of coughing, choking, etc. such as a more upright posture.
- Feed child in upright position at a greater than 45-degree angle.

Other Ways to Help

- Ensure the child is of the appropriate age and/or is showing the necessary developmental skills for textures and consistencies being offered.
- Use alerting strategies such as brushing teeth before feedings if a child appears understimulated (Appendix 9K).
- Use calming strategies such as reducing external sounds and visual stimuli before and during feedings if a child appears overstimulated (Appendix 9K).
- Encourage small, single bites and sips, and a slow rate of eating and drinking if a child is self-feeding (Appendix 9L-3).
- If feeding a child, offer small bites and sips at a slow enough rate he can handle.
- Cut foods into safe and appropriately sized bites for a child and offer small amounts of food and liquids at a time.
- Offer frequent breaks for child
- Watch for signs of aspiration such as coughing, choking, wet voice and breathing, etc., and stop feeding if these continue to occur despite modifications.
- Change food textures or liquids consistencies to reduce risk of aspiration (Chapter 1, Section 9; Appendices 9C, 9D, 9E, 9F).

Remember: Children who cough, choke and/or gag with feedings may be aspirating – liquid goes into lungs instead of into their stomachs. This can make them very sick with upper respiratory infections and/or pneumonia, which can lead to poor weight gain and even death

SECTION 7.2: FINAL THOUGHTS FOR SUPPORTING FEEDING CHALLENGES

Just as every child is unique, so too are her feeding challenges and needs around mealtimes. It is essential that all caregivers understand each individual child's strengths and challenges, and have the knowledge and skills to offer the best possible support. Mealtimes are valuable experiences that happen every day, multiple times a day. Therefore, it is essential to work toward ensuring each child has the opportunity for positive and safe feeding experiences.

PART 3 | CHAPTER 8

MAKE MEALTIMES MATTER: GROWING CHILDREN WITH RELATIONSHIPS

"What a child doesn't receive, he can seldom later give."

P.D. James

SECTION 8.1: GROWING HEALTHY BRAINS AND BODIES

POSITIVE RELATIONSHIPS MATTER[3]

When children experience positive interactions with others from the start of their lives, they reap substantial benefits for the rest of their lives.

POSITIVE RELATIONSHIPS ...

- Teach children about the world and themselves.
- Show children that they are loved and by whom.
- Help them learn if the world is safe or scary.
- Explain what happens when they become upset or happy.
- Allow them to observe and learn how to treat other people and communicate.
- Shape and help a child's brain to grow.
- Create healthier and happier children and adults.

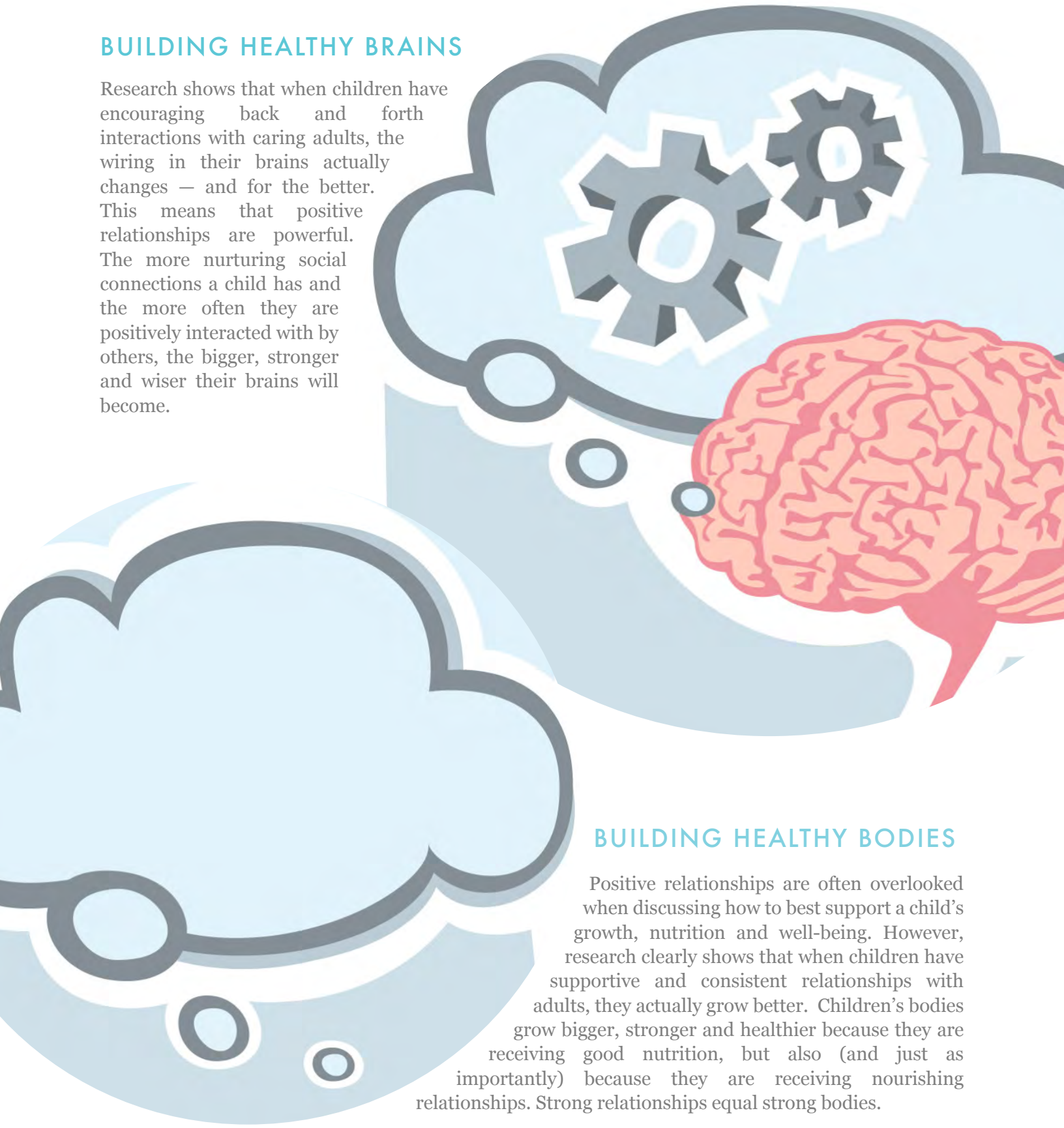
Positive relationships are the essential foundation for raising healthy children.

All children need five vital elements for robust development in life:

① A healthy, safe and low-stress experience in the womb before being born
② The chance to experience love with a nurturing and safe adult caregiver
③ Support for learning how to calm themselves when upset (self-regulation)
④ Support for discovering how to become calm with the help of others (co-regulation)
⑤ Reliable, thoughtful and developmentally matched care from primary caregivers

BUILDING HEALTHY BRAINS

Research shows that when children have encouraging back and forth interactions with caring adults, the wiring in their brains actually changes — and for the better. This means that positive relationships are powerful. The more nurturing social connections a child has and the more often they are positively interacted with by others, the bigger, stronger and wiser their brains will become.



BUILDING HEALTHY BODIES

Positive relationships are often overlooked when discussing how to best support a child's growth, nutrition and well-being. However, research clearly shows that when children have supportive and consistent relationships with adults, they actually grow better. Children's bodies grow bigger, stronger and healthier because they are receiving good nutrition, but also (and just as importantly) because they are receiving nourishing relationships. Strong relationships equal strong bodies.

When children *do not* have anyone to consistently depend on, and when they *do not* experience healthy relationships, their growth and development can be greatly hindered. This also means that the growth of a child's brain will be negatively impacted.

CHILDREN WITH LIMITED OR NO ACCESS TO POSITIVE RELATIONSHIPS ARE:

1. At greater risk of chronic illnesses and death.
2. At greater risk of malnutrition and dehydration.
3. At greater risk of mental health issues such as depression, anxiety, behavioral difficulties, etc.
4. Less likely to recover from difficult, traumatic life experiences such as the loss of a caregiver, sibling or friend.
5. Less likely to develop necessary developmental skills to become thriving, functional adults such as learning to wash, dress, and feed themselves, manage daily activities and positively interact with others.

The type of care we provide to a child matters. There is an important difference between custodial care versus optimal caregiving for children. Taking care of a child's basic needs such as feeding, bathing and dressing (also known as "custodial care") is hard work and incredibly important. However, when caregivers provide optimal caregiving, they go above and beyond by offering children positive, supportive and loving interactions.

Thoughtful and nurturing interactions aid with healthy brain and body growth. This is the essence of optimal caregiving.

DIFFERENCES BETWEEN CUSTODIAL CARE AND OPTIMAL CAREGIVING

CUSTODIAL CARE	OPTIMAL CAREGIVING
Keeping a child alive	Keeping a child alive, happy and thriving
Feeding a child	Feeding a child safely, thoughtfully and offering appropriate support and positive interactions
Attending to a child's diapering and toileting needs	Responding to diapering and toileting needs in a timely and considerate manner while offering positive interactions
Bathing a child	Bathing a child safely and thoughtfully and offering opportunities for child participation and positive interactions
Dressing or undressing a child	Dressing or undressing a child safely and thoughtfully, offering opportunities for child participation and positive interactions
Sleep or wake routines for a child	Responding to a child's needs for sleep or activity with thoughtful schedules and routines along with positive interactions
Limited or no playtime offered to a child	Encouraging daily play with children, adults, and peers and opportunities for positive interactions
Limited or no holding or comfort to a child	Responding to a child's needs for comfort and holding in thoughtful, individualized ways while offering positive interactions

WHEN CAREGIVERS PROVIDE OPTIMAL CAREGIVING:

① A child's quality of life is significantly improved.
② A child's health and well-being are greatly improved, including physical and brain development → they are more likely to develop to their full potential.
③ A child's nutrition improves → they can better use the nutrition they receive, and they are at lower risk of malnutrition, stunting, wasting, etc.
④ A child's risks related to difficult life events are lowered because positive relationships lessen the impact of these early challenges.
⑤ A child is able to fully experience life and thrive and spend less time and energy focusing on staying alive and safe.

"Every child deserves a champion.

An adult who will never give up on them, who understands the power of connection and insists that they become the best that they can possibly be."

– Rita Pierson

SECTION 8.2: SUPPORTING INTERACTION ACROSS THE AGES

Every child deserves the opportunity to grow and develop to their fullest potential. Regular and frequent positive interactions with children are the primary way to best support a child's complete development. By thoughtfully including frequent moments of connection throughout a child's day, caregivers are growing calmer, stronger, healthier children; in addition to functional and flourishing adults.

Any positive interaction with a child, no matter how brief, is powerful.

Listed below are examples of ways caregivers can support positive interactions with all children during daily activities and routines. The key is to provide each of them with thoughtful intent and consistency to grow healthy and socially strong children.

Some strategies are excellent for children of all ages. Some strategies are better suited for younger or older children. Consider the age and developmental level of the child when choosing which strategies to use.

OPPORTUNITIES TO SUPPORT POSITIVE INTERACTIONS THROUGHOUT DAILY ACTIVITIES AND ROUTINES

FOR THE CHILD 0-36 MONTHS AND OLDER

WHEN TO INCLUDE INTERACTION:	HOW TO INCLUDE INTERACTION:	
Mealtimes 	⇒ Holding child when bottle feeding ⇒ Looking at child during feedings ⇒ Offering soothing touches (may include swaddling for young babies) ⇒ Providing a quiet environment for calming before, during, or after meals (dim lights, reduced noise) ⇒ Responding consistently to her signs of hunger ⇒ Offering food before she becomes too hungry or upset ⇒ Feeding child at the same time each day and night ⇒ Having the same caregiver feed child	⇒ Repeating child's faces, sounds or word ⇒ Eating meals with an older child ⇒ Offering positive support and praise for self-feeding ⇒ Offering positive support and praise for trying new foods ⇒ Offering child opportunities to assist with washing before a meal and cleaning up afterward ⇒ Offering child opportunities to serve self and others food or drinks ⇒ Talking, singing and smiling at child
Diaper Changes 	⇒ Talking, singing and smiling at child ⇒ Looking at child ⇒ Offering soothing touches ⇒ Making fun faces and sounds with child ⇒ Repeating child's faces, sounds or words ⇒ Responding consistently to his signs or cries for a new diaper ⇒ Changing his diaper as often as needed during the day and night	⇒ Having the same caregiver change child each time ⇒ Having consistent diapering and toileting schedules for children ⇒ Offering positive support and praise for child's attempts to help with diapering and toileting ⇒ Offering positive support and praise for child's attempts to alert caregivers of diapering and toileting needs

Dressing and Undressing 	⇒ Talking, singing and smiling at child ⇒ Looking at child ⇒ Repeating child's faces, sounds and words ⇒ Following predictable dressing and undressing routines ⇒ Having the same caregiver dress and undress child	⇒ Offering positive support and praise for child's attempts to help with dressing and undressing ⇒ Offering child regular opportunities to practice dressing and undressing themselves
Bathing, Washing, Cleaning Routines 	⇒ Talking, singing and smiling at child ⇒ Looking at child ⇒ Offering soothing touches ⇒ Repeating child's faces, sounds and words ⇒ Having the same caregiver bathe child ⇒ Following predictable bathing and washing routines	⇒ Bathing her as often as she needs ⇒ Offering child regular opportunities to practice washing hands and face and brushing their teeth ⇒ Offering positive support and praise for child's attempt to help with bathing and washing
Waking up from rest; Putting down to rest 	⇒ Talking, singing and smiling at child ⇒ Swaddling young babies when appropriate ⇒ Offering calming, repeated movements to soothe child such as rocking, bouncing, patting, swaying, etc. ⇒ Singing or playing music that has a soothing steady rhythm and signifies it is time to rest ⇒ Adjusting temperature to suit her needs	⇒ Having the same caregiver wake and put child down ⇒ Repeating child's faces, sounds and words while preparing for rest or upon waking ⇒ Following predictable wake up and resting routines ⇒ Responding to child in a timely manner when she wakes ⇒ Offering child comfort items such as pacifiers, blankets, loveys or other age-appropriate items
Play Time 	⇒ Talking, singing and smiling at child ⇒ Playing on the ground, floor or bed with him at child's eye level ⇒ Making fun sounds and faces with child ⇒ Repeating child's faces, movements, sounds and words ⇒ Encouraging a child's exploration of objects, toys and environments	⇒ Looking at child often during play ⇒ Having the same caregivers play with child ⇒ Playing in different environments such as play room, outside, a different room, park, etc. ⇒ Playing often throughout the day

Holding, Carrying, Comforting

- ⇒ Wearing child in a wrap, pack, blanket, etc., to calm her and stay close
- ⇒ Swaddling young babies when appropriate
- ⇒ Snuggling child each day and often
- ⇒ Offering consistent comfort and soothing when child becomes upset
- ⇒ Repeating child's faces, sounds and words
- ⇒ Responding to moments of distress in a timely manner
- ⇒ Having the same caregiver soothe child
- ⇒ Talking, singing and smiling at child during calm moments and moments of distress
- ⇒ Offering the older child "cozy corners" or "quiet spaces" to use for calming when she becomes upset or overstimulated

KEY POINTS FOR SUPPORTING INTERACTIONS

Healthy relationships help children thrive. Children who are thoughtfully cared for by others through daily, positive interactions are healthier and more well-nourished (body and mind). Providing this optimal care does not need to take extra time or expertise. It only requires a desire from caregivers to build strong connections with the children they support. Caregivers can offer positive relationships during the daily activities and routines by incorporating simple, but powerful strategies.

IMPORTANT POINTS TO REMEMBER:

① Positive relationships are the key experiences a child needs to build a strong foundation for a healthy and happy life.

② Healthy relationships with others are the main way caregivers can help reduce the effects of negative experiences for children.

③ Positive relationships are necessary for a child to have a well-nourished body and mind.

For more information on interaction basics, refer to Chapter 1, Section 10.

PART 4:
APPENDIX STRATEGIES, HANDOUTS, AND INFORMATION FOR CAREGIVERS AND COMMUNITIES

Chapter 9: Appendix

9A: FEEDING SKILLS TIMELINE: EATING AND DRINKING FROM BIRTH TO 36 MONTHS OLD

Diet	⇒ Only breastmilk or formula
Textures and Consistencies	⇒ Breastmilk or formula consistency
Skills	⇒ Sucking and swallowing when born ⇒ Rooting reflex for finding liquids

Diet	⇒ Slow introduction to age-appropriate solid foods ⇒ Primary reliance on breastmilk or formula
Textures and Consistencies	⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids
Skills	⇒ Improved head and neck strength for sitting and eating

Diet	⇒ Taking more solid food ⇒ Primary reliance on breastmilk or formula
Textures and Consistencies	⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids ⇒ Minced and moist solids
Skills	⇒ Learning to eat and drink from spoons and cups ⇒ Sitting upright with little to no support

Diet	⇒ Eating a greater variety of foods ⇒ Taking larger amounts of food and liquid and less often throughout the day
Textures and Consistencies	⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids ⇒ Minced and moist solids ⇒ Soft and bite-sized solids
Skills	⇒ Developing early chewing patterns ⇒ Holding a bottle or cup during feedings and self-feeding foods

Diet	⇒ Taking a greater variety of textured food ⇒ Taking larger amounts of food and liquid and less often throughout the day
Textures and Consistencies	⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids ⇒ Minced and moist solids ⇒ Soft and bite-sized solids
Skills	⇒ Developing more mature chewing patterns ⇒ Biting down through certain food using gums and teeth

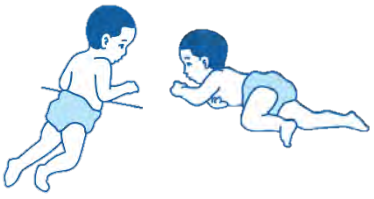
Diet	⇒ Eating variety of food textures with growing success
Textures and Consistencies	⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids ⇒ Minced and moist solids ⇒ Soft and bite-sized solids
Skills	⇒ Drinking from a straw ⇒ Using fingers to self-feed and trying to use utensils ⇒ Drinking from a cup with some loss of liquid

Diet	⇒ Eating most food textures without support
Textures and Consistencies	⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids ⇒ Minced and moist solids ⇒ Soft and bite-sized solids ⇒ Regular solids
Skills	⇒ Feeding self using fingers and utensils without support ⇒ Showing mastery of all oral motor skills for eating and drinking

Diet	⇒ Eating most food textures with growing success
Textures and Consistencies	⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids ⇒ Minced and moist solids ⇒ Soft and bite-sized solids ⇒ Regular solids
Skills	⇒ Using fingers and utensils with greater success ⇒ Drinking from a cup with minimal loss of liquid

9B: TYPICAL CHILD MOTOR DEVELOPMENT MILESTONES AND RED FLAGS[24]

A child's physical motor development (the way his body moves and holds itself in different positions) is an essential part of a child's ability to eat. Strong developing bodies lead to easier and more efficient feedings. Watching for signs that a child's physical motor development may be impaired is important because early identification of problems can improve not only a child's feedings, but their entire development. Below are common motor developmental milestones and the signs or "red flags" to watch for that may indicate a problem. *Development is a process and there is a large range of "typical" times when children gain skills. Most children will develop these skills during the age ranges listed, but some children may fall slightly outside of these ranges.*

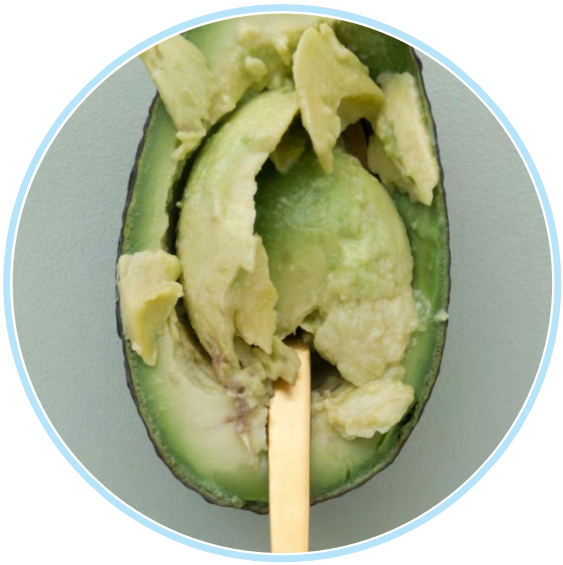
	✓	⊘	
BY 3 MONTHS	Holding head up on tummy. Pushing up on arms. 	Stiff legs. Frequently clenched fists. Cannot lift head. 	Arched head and body. Using only one side of body. 
BY 6 MONTHS	 Holding head upright. Sitting upright with support. Relaxed, but study body posture.	 Rounded back. Difficulty holding head and/or body upright.	 Stiff body and/or legs. Crossed legs. Arms pulled back away from chest.
BY 8 MONTHS	 Sitting upright on own. Reaching out with both arms.	 Unable to sit upright. Rounded back or arched body/back. Difficulty holding head upright. Stiff legs and/or arms, pointed toes. Difficulty using hands and arms.	
BY 12 MONTHS	 Pulling upright to stand. Crawling.	 Difficulty standing upright. Stiff legs and/or arms, pointed toes. Unable to crawl. Using only one side of the body for crawling.	
BY 15 MONTHS	 Standing. Walking.	 Stiff arms or legs. Frequently walking on toes. Leaning to one side while sitting upright. Using only one hand for reaching and grasping.	

9C: FOOD TEXTURE AND LIQUID CONSISTENCY VISUAL CHART

Foods and liquids come in a variety of different textures and consistencies. For children who may experience challenges with eating and drinking, finding the right food texture and liquid consistency that is easiest and safest is essential.

FOOD TEXTURES

1. PUREED



2. MINCED AND MOIST

3. SOFT AND BITE-SIZED

4. REGULAR

LIQUID CONSISTENCIES

1. THIN LIQUIDS

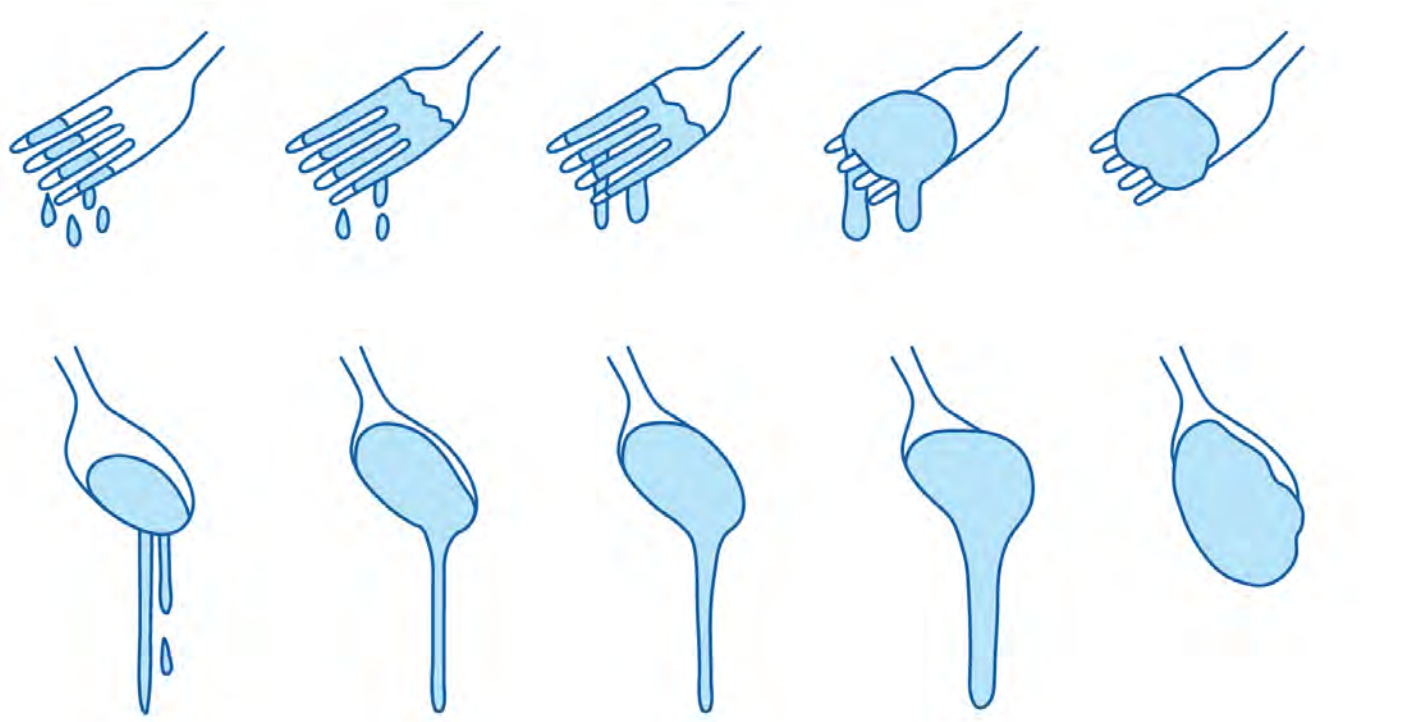
2. SLIGHTLY THICK LIQUIDS

3. MILDLY THICK LIQUIDS

4. MODERATELY THICK LIQUIDS

5. EXTREMELY THICK LIQUIDS

LIQUID CONSISTENCIES – FORK AND SPOON TEST



1. THIN LIQUIDS	2. SLIGHTLY THICK LIQUIDS	3. MILDLY THICK LIQUIDS	4. MODERATELY THICK LIQUIDS	5. EXTREMELY THICK LIQUIDS

9D: SPECIALIZED FOOD AND LIQUID EXAMPLE LISTS

Foods and liquids come in several different textures and consistencies. Choosing the right food texture and liquid consistency for a child helps make mealtimes safe and comfortable. Offering a texture and consistency that fits a child's skill level is critical in supporting successful feeding. Below are lists of example foods and liquids that match each texture and consistency. These foods may be found in your community. Use these lists as a guide for choosing appropriate food textures and liquid consistencies for the children in your care.

SOLID FOOD TEXTURES	EXAMPLE FOODS	EXAMPLE FOODS (CONTINUED)
Pureed or Extremely Thick	○ Blended vegetables (squash, carrots, parsnips, sweet potatoes, pumpkin, green beans, spinach, peas, zucchini, etc.) ○ Blended fruits (peaches, bananas, plantains, mangoes, apricots, pears, avocados, tomatoes, plums, kiwis, nectarines, chikoos, sapotas, sapodillas, papayas, etc.) ○ Blended meats (chicken, beef, turkey, pork, lamb, mutton) ○ Applesauce ○ Pudding or flan ○ Pureed canned meat	○ Thick cereals or porridge (oatmeal, cream of wheat, cream of rice, farina, phala) ○ Blended soups and stews (not runny) ○ Yogurt ○ Kefir or Tapar ○ Chaas ○ Lassi ○ Refried beans ○ Corn grits ○ Ricotta cheese ○ Smooth mashed cottage cheese ○ Mashed potatoes ○ Commercial pureed baby foods
Minced and Moist	○ Finely minced meats (ground beef, chicken, turkey, lamb, mutton, pork) ○ Canned chicken breast (mashed, moist) ○ Canned tuna or fish (mashed, moist and without bones) ○ Mashed white fish (cod, tilapia, haddock, orange roughy) ○ Thick cereals with small lumps	○ Finely minced or mashed vegetables (potatoes, squash, carrots, parsnips, green beans, spinach, etc.) ○ Finely minced or mashed fruits (avocado, banana, mangoes, berries, etc. ○ Eggs or egg substitute (scrambled)
Soft and Bite-Sized	○ Cooked-tender meats (chicken, beef, pork, lamb, mutton, etc.) ○ Flaky fish (cod, tuna, halibut, haddock, orange roughy, etc.) ○ Mashed fruits (bananas, avocados, mangoes, berries, nectarines, tangerines, plums, etc.)	○ Steamed or boiled vegetables (carrots, parsnips, green beans, peas, broccoli, cabbage, cauliflower, etc.) ○ Soft cheese ○ Eggs (hard boiled, scrambled, fried) ○ Soaked breads that are "moist" to touch ○ Noodles and rice
Regular	○ All meats, fish, vegetables, fruits, cheese, eggs, lentils, beans, breads, tortillas, grains, etc.	

LIQUID CONSISTENCIES	EXAMPLE LIQUIDS
Thin	○ Water ○ Tea and coffee (nothing added) ○ Broth
Slightly Thick	○ Breastmilk ○ Formula
Mildly Thick	○ Fruit nectars (peach, pear, orange, pineapple, mango, etc.) ○ Tomato juice ○ Milk (cow's, soy, rice, coconut, hemp)
Moderately Thick	○ Runny pureed fruits ○ Runny rice cereals ○ Creamed soups (spinach, potato, asparagus, squash, tomato, etc.) ○ Sauces, gravies, syrups (not runny) ○ Honey
Extremely Thick or Pureed	○ Blended vegetables (squash, carrots, parsnips, sweet potatoes, pumpkin, green beans, spinach, peas, zucchini, etc.) ○ Blended fruits (peaches, bananas, plantains, mangoes, apricots, pears, avocados, tomatoes, plums, kiwis, nectarines, chikoos, sapotas, sapodillas, papayas, etc.) ○ Blended meats (chicken, beef, turkey, pork, lamb, mutton) ○ Yogurt ○ Kefir ○ Chaas ○ Lassi

9E: MODIFYING FOOD AND LIQUID [34]

Some children have difficulty managing certain food textures in their mouths or safely swallowing certain liquids. When a child has a problem eating and drinking, changing the food textures or liquid consistencies offered is one way to make mealtimes safer and easier.

Foods and liquids are either naturally a specific texture and consistency or they can be altered by caregivers to become a more well-suited texture or consistency that fits a child's needs. Foods and liquids can be altered by using tools such as utensils, blenders, other foods and liquids or artificial thickening agents.

HOW TO THICKEN FOOD AND LIQUID

① Thickening foods and liquids naturally using ordinary food or liquid thickening agents
② Thickening foods and liquids using artificial thickening agents

NATURAL THICKENING AGENTS

Foods and liquids that naturally create thickened consistencies when mixed in with other foods and liquids.

NATURAL THICKENERS	IMPORTANT PRECAUTIONS
Dry infant cereal (rice, barley, oatmeal, mixed) – ground or pulverized	○ Not flaked ○ Not to be used with breast milk ○ For children younger than 12 months old
Gelatin, guar gum, arrowroot starch, potato starch, tapioca starch, cornstarch, psyllium husk, flour, carrageenan (Irish moss)	○ For children older than 12 months and who are not at risk for allergies
Mix liquids (milk, water, juice) with pureed foods to create thickened liquid	○ For children older than 12 months and who are not at risk for allergies

ARTIFICIAL THICKENING AGENTS

Artificial substances that can be used to create thickened consistencies when mixed in foods and liquids. These thickeners can be purchased at certain stores, pharmacies and online. Each thickener manufacturer provides specific directions for how to thicken foods and liquids using its product.

Do not use artificial thickeners unless a child is older than 12 months.

ARTIFICIAL THICKENERS	IMPORTANT PRECAUTIONS
SimplyThick, Thick It, Thicken Up, Thick and Easy, Gelmix Thickener	○ For children older than 12 months

MILDLY THICK (NECTAR THICK) LIQUID THICKENING DIRECTIONS - USING A NATURAL THICKENING AGENT

- Mix 6.3 grams (1.5 tsp) dry infant cereal for every 30 ml (1 fl. oz.) of formula or liquid.

EXAMPLES:

- For a 90 ml (3 fl. oz.) bottle of formula: add 19 grams (4.5 tsp/1.5 tbsp) dry infant cereal
- For a 120 ml (4 fl. oz.) bottle of formula: add 25.2 grams (6 tsp/2 tbsp) dry infant cereal
- For a 180 ml (6 fl. oz.) bottle of formula: add 37.8 grams (9 tsp/3 tbsp) dry infant cereal
- Liquids should appear thicker (such as juice nectar) and flow off of a spoon slower than water.

MODERATELY THICK (HONEY THICK) LIQUID THICKENING DIRECTIONS- USING A NATURAL THICKENING AGENT

- Mix 2.5 tsp (10.5 grams) dry infant cereal for every 30 ml (1 fl. oz.) of formula or liquid.

EXAMPLES:

- For a 90 ml (3 fl. oz.) bottle of formula: add 31.5 grams (7.5 tsp/2.5 tbsp) dry infant cereal
- For a 120 ml (4 fl. oz.) bottle of formula: add 42 grams (10 tsp/3 tbsp + 1 tsp) dry infant cereal
- For a 180 ml (6 fl. oz.) bottle of formula: add 63 grams (15 tsp/5 tbsp) dry infant cereal
- Liquids should appear thicker (such as honey) and flow off of a spoon slower than mildly thick liquids.

Never give real honey to children younger than 12 months.

ADDITIONAL THICKENING DIRECTIONS FOR THE CHILD OLDER THAN 12 MONTHS

- Mix a small amount of water, broth or juice with blended baby food or blenderized food to create a natural thickened liquid. Stir well until smooth without clumps. *The more liquid added, the thinner the liquid consistency.
- Mix a small amount of water or milk to pudding or yogurt to create a natural thickened liquid. Stir well until smooth without clumps. *The more liquid added, the thinner the liquid consistency.
- Mix potato flakes, bread crumbs, flour or crushed crackers to pureed stews, soups and meats for added thickness. Stir well until smooth without clumps. *The more substance added, the thicker the food texture.

THICKENING TIPS

① Shake liquids in cups or bottles vigorously to thicken.
② Mix liquids in cups or bowls vigorously using a fork or whisk.
③ Allow all liquids several minutes to settle into the correct thickness.
④ The temperature of a liquid can change how well a liquid thickens. Watch carefully and adjust as necessary.
⑤ Slowly add thickeners to liquids to avoid excessive clumping.
⑥ Liquids may need to be shaken or mixed again over time. Always test a liquid's thickness before offering to a child.
⑦ If a liquid is too thin, add small amounts of thickener until it is the correct consistency.
⑧ If a liquid becomes too thick, add small amounts of thin liquid (water, broth, formula, milk, juice) until it is the correct consistency.
⑨ Do not mix dry infant cereal with breast milk. Breast milk breaks down cereal causing it to become a thin consistency.
⑩ Thicken liquids directly before offering them to a child.
⑪ If feeding thickened liquids using a bottle, always check the nipple during a feeding to ensure it is not clogged. Repeatedly clogged nipples may mean that a faster flowing nipple (higher level/larger size hole) is required.
⑫ Never cut holes in nipples to feed a child thickened liquids. Change the nipple to one that is an appropriate size.
⑬ Some food items melt and become thin liquids such as ice cream, popsicles, ice cubes and Jell-O. Do not offer these items to children who have difficulty swallowing thin liquids.

HOW TO MAKE PUREED FOOD[35]

PUREED FOOD CHARACTERISTICS

- Usually eaten with a utensil
- Cannot drink from a cup or straw
- Do not require chewing
- Smooth, no lumps
- Cannot pour
- Falls off spoon in single spoonful and holds shape on plate/tray/table

DIRECTIONS TO MAKE PUREED FOODS

1. Cook vegetables and meat until well done, but avoid overcooking. (Overcooked vegetables = soggy; Overcooked meat = stringy and tough).
2. Place food in blender or food processor.
3. Add small amounts of liquid at a time.
4. Cover and blend until food is smooth.
5. Add more liquid as needed, especially if a puree is too thick.

PUREED FOOD TIPS

1. For meats and entrees:
   (a) Use different sauces and liquids to make new and appetizing flavors.
   (b) Casserole dishes can typically be pureed easily.
   (c) Avoid using tough, dried, stringy meats.
   (d) Avoid using chicken or duck skin.
2. For vegetables:
   (a) Steam or boil vegetables until tender. Drain and save liquid for pureeing.
   (b) Use butter, cream, warm milk, broth, cooking water or gravy for pureeing potatoes.
   (c) Mix certain vegetables together to make delicious combinations such as broccoli and cauliflower; carrots and parsnips.
   (d) Be cautious when pureeing vegetables with skins as some do not puree well.
   (e) Avoid using raw vegetables or vegetables with tough skin or seeds.
3. For fruits:
   (a) If using canned fruit, drain liquids and save for pureeing.
   (b) Mix certain fruits with puddings, yogurt, ricotta or cottage cheese for enjoyable meals.
   (c) Avoid raw fruit or fruit with tough skin or seeds.
4. For grains:
   (a) Cook noodles and rice until very soft before pureeing.
   (b) Puree cooked noodles/rice with meat and/or vegetables for a delicious meal.
   (c) Puree cooked noodles/rice with sauces (cream, tomato), gravies, cheese, or broths for a tasty meal.
   (d) Avoid all breads.
5. For soups and stews:
   (a) Strain all meats, noodles/rice and vegetables for pureeing.
   (b) Slowly add saved broth or stew base in small amounts to pureed foods.

To boost flavor: Try adding different sauces, herbs and spices to a puree.

To boost calories: Try adding butter, oils, high fat dairy products and dressings and creams to a puree.

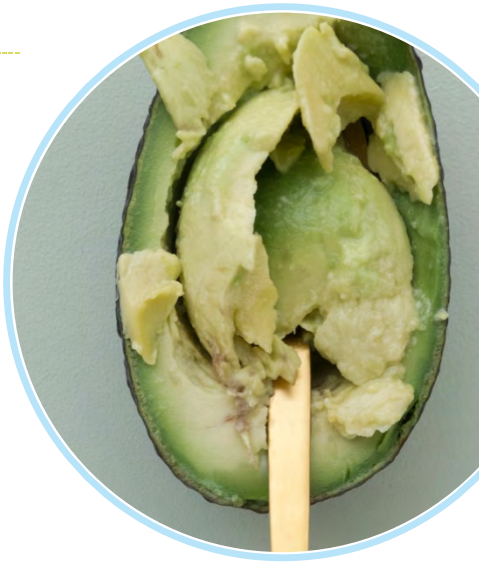
HOW TO MAKE MINCED AND MOIST FOOD

MINCED AND MOIST FOOD CHARACTERISTICS

- Can eat with utensil, chopsticks or sometimes hands
- Can be shaped and scooped on plate/tray/table
- Small lumps visible
- Lumps are easy to squish with tongue
- Moist and soft
- Minimal chewing is required
- Do not require biting

DIRECTIONS TO MAKE MINCED AND MOIST FOODS

1. Cook vegetables and meat until well done, but avoid overcooking. (Overcooked vegetables = soggy; overcooked meat = stringy and tough).
2. Place food in food processor, meat grinder or finely chop into same-sized pieces using a sharp knife.
3. Pieces of food should be no greater than 2 ml in size.
4. Add gravies and sauces to foods for extra moisture and ease for eating.



HOW TO MAKE SOFT AND BITE-SIZED FOOD

SOFT AND BITE-SIZED FOOD CHARACTERISTICS

- Can eat with utensil, chopsticks or hands
- Soft, tender and moist bite-sized pieces
- Can be cut without a knife
- Can be mashed or broken down with utensil
- Chewing is required
- Do not require biting

DIRECTIONS TO MAKE SOFT AND BITE-SIZED FOODS

1. Cook vegetables and meat until tender.
2. Chop all foods into same-sized pieces using a sharp knife.
3. Pieces of food should be no greater than 8 ml in size.
4. When food pieces are pressed down by using a fork, the fingernail should turn a white color and the food should squash and not return to its prior shape.
5. Add gravies and sauces to foods for extra moisture and ease of eating.

9F: DIET ADVANCEMENT GUIDE

Every child deserves the opportunity to try different food textures and liquid consistencies in a safe and thoughtful manner. If a child never has the chance to try a food or liquid, we will never know what their true skill level is.

DIET ADVANCEMENT is when caregivers support a child's movement (or advancement) to eating a new food texture or drinking a new liquid consistency. Children with disabilities often need special textures and consistencies. Choosing the right food texture and liquid consistency for any child helps make mealtimes safe and comfortable. Some children are able to eventually eat (or advance) to more complex textures and consistencies. However, some children are safest and most successful with diets consisting of less challenging textures and consistencies.

Offering a different food texture or liquid consistency to a child every so often under careful supervision is the best way to determine when a child may be ready to advance their diet. Below are simple suggestions for advancing a child's food and/or liquid diet.

FOOD TEXTURE ADVANCEMENT ROAD MAP

STARTING LINE: CHILD'S CURRENT FOOD	FINISH LINE: POSSIBLE FOOD ADVANCEMENT
Puree	Minced and moist
Minced and moist	Soft and bite-sized
Soft and bite-sized	Regular solid foods

LIQUID CONSISTENCY ADVANCEMENT ROAD MAP

STARTING LINE: CHILD'S CURRENT LIQUID	FINISH LINE: POSSIBLE LIQUID ADVANCEMENT
Extremely thick liquids	Moderately thickened liquids
Moderately thickened liquids	Mildly thickened liquids
Mildly thickened liquids	Slightly thickened liquids
Slightly thickened liquids	Thin liquids

DIET ADVANCEMENT GUIDELINES

① Start with the child's "starting line" of current food(s) and liquids.

② Try a small amount of a "finish line food or liquid" (new food or liquid). *Go slowly*.

③ Observe how a child manages the "finish line food or liquid."

④ **Problems?** → Return to serving "starting line food or liquid." They may not be ready for it yet.

⑤ **No problems?** → Continue to try small amounts of "finish line food or liquid" with strict supervision over the course of several meals and advance diet when child shows appropriate skills and safety.

Advancing a child's diet can sometimes take lots of time. Some children will advance to eating or drinking a new food or liquid over just a few meals. Others may take several months of longer. Be patient and never rush a child to advance their diet when they are not ready.

When trying new foods and liquids with a child, always provide 100 percent supervision from a knowledgeable caregiver. Children may cough or even choke when trying new foods and liquids, and it is critical that caregivers are nearby for extra support and safety.

PROBLEMS MAY LOOK LIKE:

- Ø Coughing
- Ø Choking
- Ø Sputtering
- Ø Turning a different color
- Ø Not breathing or stopping breathing
- Ø Wet voice quality
- Ø Watery eyes
- Ø Facial grimace
- Ø Illness following introduction of new "finish line food or liquid"

HELPFUL TIPS

- ✓ Let a child touch, see, and smell "finish line food or liquid" first before offering a bite or sip.
- ✓ Offer "finish line food or liquid" alongside familiar "starting line food or liquid."
- ✓ Offer small amounts of "finish line food or liquid" when first starting out with a child.
- ✓ If feeding a child, slowly offer the "finish line food or liquid" and provide small bites or sips.
- ✓ Only offer a "finish line food or liquid" when a child is alert and feeling well.
- ✓ Never give up. Just because a child isn't ready for a food or liquid now doesn't mean they won't be ready for it later. Keep trying.

9G: COMMON ITEMS FOR SUPPORTING FEEDING

Below are examples of ordinary items which may be found in your location and community that can assist with supporting a child's feeding development. Use this list as a guide for identifying common items and sparking more ideas about what other items may work well to assist the children in your care.

For learning more creative ways to enhance mealtimes, refer to Appendix 9I.

FEEDING SUPPLY LIST

Feeding babies and children does not usually require fancy tools or supplies. What's more important is the way in which we feed babies. In this section, we will share basic feeding supplies for children of all ages and simple tips for using each item.

BOTTLES[36]

TIPS:

① Have different bottle sizes (120 ml/ 4 fl. oz., 180 ml/ 6 fl. oz., 270 ml/ 9 fl. oz., 330 ml/ 11 fl. oz.). Smaller bottles are easier for caregivers and babies to hold. Larger bottles offer more liquids at one time.

② As babies become older and take more liquids during feedings, larger bottles can be advantageous.

③ Specialty bottles can be helpful for certain babies with cleft lip/palate or babies born early (premature).

The Premature Baby

Babies born early often feed better with very slow flowing nipples. "Preemie Nipples" and "Preemie Specialty Feeders" are available. Caregivers can also try other specialty bottles (Special Needs Feeder, Pigeon Feeder) or slow flow nipples, syringes, spoons or cups.

Four Types of Specialty Bottles for Babies with Cleft Lip/Palate

- Cleft Lip/Palate Nurser by Mead Johnson
- Dr. Brown's Specialty Feeding System with one-way valve
- Special Needs Feeder by Medela
- Pigeon Feeder with one-way valve (nipple can be used with any bottle)

CLEFT LIP/PALATE NURSER

Description: This is a soft, squeezable bottle that works well for babies born with cleft lip and/or palate. It is very low-cost. The feeder squeezes the bottle to allow liquid to flow into the baby's mouth. This way, the baby does not need to suck, which is hard or sometimes impossible with a cleft.

TIPS FOR USING:

① Use with a softer, shorter nipple instead of the long, yellow nipple that comes with it.

② Liquid should flow easily when squeezing the bottle, but it should not flow very fast.

③ Feeders squeeze the bottle only when the baby is sucking. When a baby stops for a break or to breathe, stop squeezing.

④ When squeezing, use steady and firm pressure. Count to 3 (1—2—3). Reduce the firmness of squeezing starting at the 2—3 count. Pause, observe how baby does and begin the process again.

⑤ Air bubbles in the liquid indicate that a baby is successfully getting the milk.

⑥ Coughing, choking or sputtering can mean that squeezing may be too firm and fast, the length of squeezing may be too long, or the time between squeezes may be too short.

Practice before feeding baby! Put water in a feeder and practice squeezing the liquid. This is a great way to learn how firmly you must squeeze the bottle when feeding a baby.

DR. BROWN'S SPECIALTY FEEDER SYSTEM

Description: This is a bottle with a special one-way valve that works well for babies born with cleft lip and/or palate. The valve keeps the nipple full of liquid and removes the need for a baby to suck, which can be hard or sometimes impossible with a cleft.

TIPS FOR USING:

① Because liquid stays in the nipple (instead of flowing back down into the bottle), a baby will latch on to the nipple which then easily releases liquid into their mouth.

② A baby can control the rate of feeding, taking breaks as needed.

SPECIAL NEEDS FEEDER

Description: This is a bottle with a special one-way valve that works well for babies born with cleft lip and/or palate. The valve keeps the nipple full of liquid and removes the need for a baby to suck, which can be hard or sometimes impossible with a cleft. Feeders can also squeeze the bottle to assist a baby with feeding (similar to the cleft lip/palate nurser). Lastly, this bottle has a soft nipple that has a "Y" cut that changes the flow of liquid into a baby's mouth. This bottle is also called the "Haberman Feeder."

TIPS FOR USING:

① Because liquid stays in the nipple (instead of flowing back down into the bottle), a baby will latch on to the nipple which then easily releases liquid into their mouth.

② A baby can control the rate of feeding, taking breaks as needed.

③ A feeder can assist with the rate of feeding by squeezing the bottle and/or changing the position of the "Y" cut nipple.

④ Liquid should flow easily when squeezing the bottle, but it should not flow very fast.

⑤ Feeders squeeze the bottle only when the baby is sucking. When a baby stops for a break or to breathe, stop squeezing.

⑥ When squeezing, use steady and firm pressure. Count to 3 (1—2—3). Reduce the firmness of squeezing starting at the 2—3 count. Pause, observe how baby does and begin the process again.

⑦ When positioning the nipple, three lines on each nipple indicate the flow rate being used. When the nipple is turned in a baby's mouth, the "Y" cut changes position thereby impacting the flow.

PIGEON FEEDER

Description: This is a nipple with a special one-way valve that works well for babies born with cleft lip and/or palate. The nipple comes in two sizes and it can be used with any bottle. The valve keeps the nipple full of liquid and removes the need for a baby to suck, which can be hard or sometimes impossible with a cleft.

TIPS FOR USING:

① Two sizes: Smaller size nipples work well for newborns because they have a slower flow. Larger size nipples work well for babies older than 6 weeks because their flow is slightly faster.
② Loosening the nipple → faster flowing liquid.
③ Tightening the nipple → slower flowing liquid.
④ Because liquid stays in the nipple (instead of flowing back down into the bottle), a baby will latch on to the nipple which then easily releases liquid into their mouth.
⑤ A baby can control the rate of feeding, taking breaks as needed.
⑥ The soft side of the nipple rests on a baby's tongue while the firm side rests on their gums.
⑦ A notch (air vent) close to the nipple rim is a helpful way to correctly place the nipple in a baby's mouth. The notch should be directly under the baby's nose when offering a bottle.

NIPPLES

TIPS:

① Have a variety of nipple levels (level 1, 2, 3, preemie level) or flows (fast flow, slow flow, moderate flow).
② Have a variety of shapes of nipples (short, long, wide, narrow). Some nipples are softer or harder, and babies can have a preference.
③ The flow of liquid will be different depending on the nipple used. Typically, the higher the nipple level (the greater the number on the nipple), the faster the liquid will flow.
④ Match the nipple with each baby. Some babies will need the nipple level changed over time. Some babies do not ever need the nipple level changed.

PACIFIERS/BINKIES/SOOTHERS/DUMMIES

TIPS:

① Have a variety of different pacifier types (small, large, orthodontic, etc.). Some babies prefer certain pacifiers rather than others. If a baby does not show interest in a pacifier, try offering a different type of pacifier or his hands to suck on.

② Pacifiers can be wonderful for helping a baby prepare for or end a feeding. Offer a pacifier for a baby to suck on right before a bottle to promote better sucking and a calmer, smoother feeding. Offer a pacifier directly after a feeding to help calm a baby if they become fussy once a bottle is finished.

③ Pacifiers are helpful at managing GER/GERD when given to babies after and in-between feedings.

BLANKETS, TOWELS, CLOTHS, SCARVES, PILLOWS, CUSHIONS AND FOAM

TIPS:

① Blankets, towels, cloths and scarves can be used to swaddle a young baby (0-3 months old) who may need extra support and comfort during a feeding.

② These items can be used in a variety of ways to support a baby in your arms or on your lap. It's important that babies and caregivers are comfortable during feedings, and the use of these items can make all of the difference.

③ Blankets, towels, cloths, scarves, pillows, cushions and foam can be used to improve the positioning of a child when fed in a caregiver's arms or in a chair/seat, the floor or at a table. Other helpful items may include stuffed animals, bean bags, clothing, wedges, yoga blocks, books, boxes, etc.

④ Foam can be cut into different shapes to support the positioning of a child or it can be used to make adaptive equipment to support self-feeding. It can also be used as a wedge placed under a child who needs to be in an elevated position following meals or at night (such as a child with GER or GERD).



CUPS AND SPOONS

TIPS:

① Have a variety of different cups and spoons available. Some children prefer certain types of cups or spoons based on the texture, weight, color, spout, bowl size, etc. Certain cups and spoons make self-feeding much easier for a child, too. When possible, choose a cup and spoon based on the child's preferences, strengths and needs.

BOWLS, PLATES AND PLACEMATS

TIPS:

① Have a variety of different bowls and plates available. Some children are more successful self-feeders when using certain types of bowls and plates based on the size, shape, texture, weight, depth, color, etc. When possible, choose a bowl and plate based on the child's strengths, preferences, and needs.

② Use placemats or other methods to adhere items to tables and trays. Sticky or suction cup bowls, plates and mats are great at not moving during meals. Some children do best with materials that have many colors, pictures or shapes, which help them stay focused. For children with visual impairments, adhering a black piece of paper or cloth to their tray (placing food and drink on top) can make finding their food and drink much easier.


Placemats are not only fun but functional, too. They can be made of many different materials to suit a child's needs. Placemats with edges (middle photo) are excellent for helping children with visual impairments find their food and learn to feed themselves.

This plate has sticky suction cups on the bottom that help hold it in place on a table, tray or the floor. This can be very helpful for new self-feeders or children who have trouble holding a plate/bowl in place while eating.

CHAIRS, TRAYS AND TABLES

TIPS:

① Have a variety of seating options available.
② Not all chairs, tables and trays will work with every child. A good chair, table or tray may need to be modified to fit the specific needs of each child.
③ Choose a seating arrangement that is comfortable for the caregiver, too. Caregivers and children should be at eye level with one another.






There are many different chair, table and tray options. Using blankets, towels, cloth, foam, wedges, stuffed pillowcases, bean bags, etc., to create improved comfort and stability for a child is key.

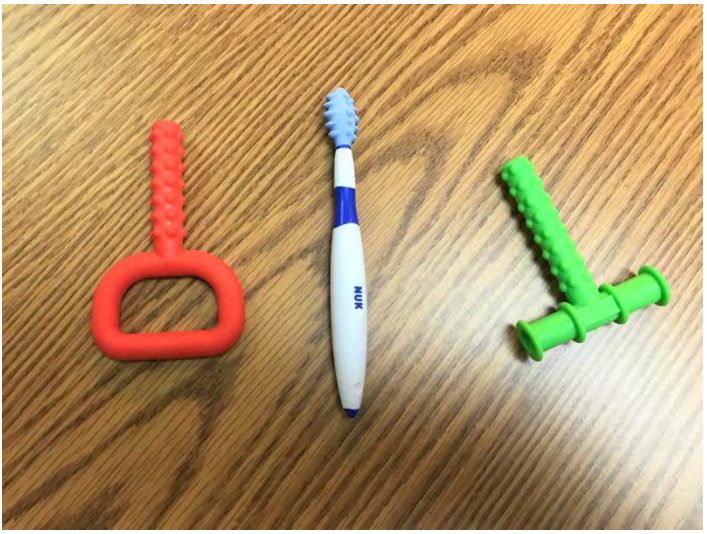
TOOTHBRUSHES AND TEETHING TOYS

TIPS:

① Tooth brushing should start when the very first tooth appears. Healthy teeth lead to a healthy mouth and body.

② Activities such as tooth brushing, offering teething toys or giving children safe, non-edible items to mouth (safely explore with their mouths) are terrific ways to improve a child's mouth muscles for feeding as well as for talking.

Toothbrushes come in a variety of types and sizes. From finger brushes (top middle photo) to baby/toddler brushes (bottom middle and far right photos) to electronic brushes (far left photo). Find a brush that matches a child's age, size and specific needs.



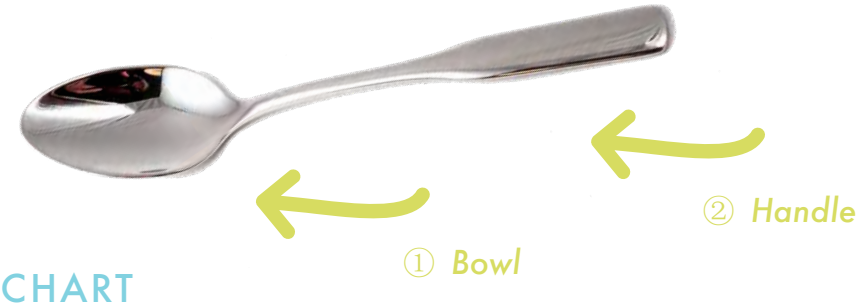
Teething objects are great for building oral motor skills for feeding and talking. They are also good for children who are getting new teeth or those who have strong sensory needs.

COMMON ITEMS	EXAMPLES OF WAYS TO USE
Stuffed Animals Pillows Blankets Towels Washcloths Fabric Foam Cushions	⇒ For positioning: Extra physical support for a child during feedings while: ▪ Held or seated in caregivers lap ▪ Seated in chair ▪ Seated on floor ○ For comfort: Extra physical comfort for a child and caregiver during feedings using these items
Trays Boxes Blocks Bricks Books Planks of Wood Flat boards (wooden puzzle board) Small Trash Bins Buckets Step/Foot Stools Firm Cushions Magazines duct taped together	⇒ For positioning: Extra physical support and stability for a child's trunk, feet and arms while: ▪ Held or seated in caregivers lap ▪ Seated in chair ▪ Seated on floor ○ For comfort: Extra physical comfort and security for a child and caregiver during feedings using these items ⇒ For seating: Additional seating for a child when an appropriate chair/table/etc. cannot be found
Baking sheets Placemats Jars Cans Plastic containers Rubber Tires and Balls, Wood Pieces, Velcro, Tool Handles, Hair Ties, Rubber Bands	⇒ For holding food or liquid: Alternatives for typical feeding supplies such as: ▪ Substitutions for plates, bowls and cups ○ For assisting self-feeding: Ways to adapt (change) utensils to be more useable by children ▪ Using these items with existing utensils and cups making them easier to hold and manipulate
Pillow cases Blankets Towels Fabric Clothing	⇒ For swaddling, wrapping, holding and carrying: Alternatives for typical supplies one might use for holding/wrapping a child

9H: SPOON CHART

There are many different types of spoons of various shapes, sizes, styles and materials. Whatever the type of spoon chosen, it must match a child's mouth size, shape and her developmental needs.

SPOON ANATOMY: PARTS OF A SPOON



SPOON COMPARISON CHART

TYPES OF SPOONS	ADVANTAGES	DISADVANTAGES
Wide Bowl	○ Holds more food	○ Usually too large for a small child's mouth ○ Difficult to close mouth around to remove food
Narrow Bowl	○ Usually better sized for a small child's mouth ○ Easier to close mouth around to remove food	○ Holds less food
Deep Bowl	○ Holds more food ○ Food stays on spoon well	○ Requires more effort and skills for removing food from bowl
Shallow Bowl	○ Requires less effort and skills for removing food from bowl	○ Holds less food ○ Food more likely to fall off
Long Handle	○ Easier for caregiver to hold if they are the feeder ○ Less tiring for caregiver to hold	○ Harder for child to hold if they are the feeder ○ More tiring for child to hold ○ More difficult to aim at mouth for eating
Short Handle	○ Easier for child to hold if they are the feeder ○ Less tiring for child to hold ○ Easier to aim to mouth for eating	○ Harder for caregiver to hold if they are the feeder ○ More tiring for caregiver to hold
Metal	○ More durable ○ Easy to find	○ Cold and hard feeling can be off-putting to children with sensitive mouths ○ Heavier to hold ○ Can damage child's teeth and gums ○ Often too big for children
Plastic	○ Lighter, easier and less tiring to hold ○ Less stimulating for sensitive children ○ Less likely to damage a child's teeth and gums	○ Less durable ○ Can be dangerous if bitten through by children with strong bite reflexes

91: GETTING CREATIVE WITH SEATING & SUPPLIES

Since children are constantly growing and developing, their needs are constantly changing. Specialized seating and other feeding related equipment can be expensive and not always accessible to caregivers. Therefore, it is important to be resourceful and creative to meet a child's feeding needs in safe and thoughtful ways.

The following are examples of creative feeding solutions found around the world. This is not a comprehensive list and should not be considered the only possibilities but, rather, a starting point for exploring solutions.

POSITIONING: Positioning is the most critical aspect of a child's feeding experience. Proper, safe positioning dramatically increases the safety and overall success of the child's ability to feed. Here are some common issues with positioning and a few creative ways to help address them:

CHAIR IS TOO LARGE FOR THE CHILD

If the chair is too large for a child, they will not have solid trunk support. It is important to ensure a child has support on their back and both sides of their body to ensure they can obtain the key elements of positioning. You can help the child better fit in a too large chair by using padding between the child's body and the chair. Some possible padding options include:

- ⇒ Pillows
- ⇒ Cushions
- ⇒ Foam
- ⇒ Stuffed animals
- ⇒ Towels
- ⇒ Blankets

Left Photo: Caregivers use blankets and stuffed animals to make a large chair fit a smaller child's positioning needs.

Right Photo: Caregivers use cushions behind a child and under his feet to create a more supportive chair and position for this child.

CHILD IS FALLING OVER IN CHAIR

Children may fall to either side, slump forward, or slide down while seated in a chair. It is important to ensure a child is able to maintain an upright, well-supported position in order to promote safe and successful mealtimes. You can help a child maintain an upright seated position by using padding between the child's body and the chair (as discussed previously) and by wrapping a belt or fabric around the child's trunk or hips and the chair. Some possible belt options include:

A belt made from:

- ⇒ A long scarf
- ⇒ Towel
- ⇒ Blanket
- ⇒ Fabric
- ⇒ Straps
- ⇒ Ropes

Top Photo: Caregivers use a piece of fabric tied around this girl and her chair to keep her hips in proper alignment for sitting.

Left Photo: Caregivers use a strap from a bathrobe around a boy and his chair to keep him from sliding down while seated.

CHILD'S FEET DO NOT TOUCH THE FLOOR OR BOTTOM OF THE CHAIR

Children need firm footing when eating as a stable base of support and to make their body feel secure. When your feet are hanging and not grounded, it can feel uncomfortable or unsafe and require more effort to maintain a stable position for eating. Ideally, fitted feeding chairs will have an adjustable foot rest to support a child's feet properly. However, sometimes it can be difficult to find a chair where the child's feet can reach a solid surface such as a foot rest or the floor. You can help the child obtain proper foot support by modifying existing foot rests or creating your own. Some possible footrest and support options include:

- Wooden blocks or planks
- Crates
- Boxes
- Stacks of magazines (duct taped together), puzzle boards, foam mats, or anything thin, solid and stackable.
    - Try adjusting the stack of items to the height that fits the child and then tape the materials together for increased stability!
- Short stools
- Trash cans
- Laundry baskets
- The caregiver's legs

Caregivers adhered a wooden puzzle board to broken wheelchair foot rests using duct tape.

Caregivers use a small table and cushion as a foot rest for this child seated in a high chair.

THE CHILD'S KNEES ARE TOO FAR APART OR TOO CLOSE TOGETHER

Twisted knees can hinder a child's ability to obtain the key elements of positioning. Ideally, fitted feeding chairs will have a bolster that goes between a child's legs to help maintain this position. However, sometimes it can be difficult to find a chair with this feature. You can help a child obtain proper knee support by modifying existing chairs or creating your own removeable substitutions. Some possible bolster options include:

- Building a bolster into the chair
  - Drill a hole where the bolster should be and attach a short, padded post
  - Use professional carpenters for this approach
- A rolled towel between or on the outside of the child's knees
- A stuffed animal between or on the outside of the child's knees
- Foam between or on the outside of the child's knees
  - Cover with fabric or pillow cases for easier clean up

Left Photo: Caregivers insert a padded cushion between this boy's knees to support his comfort and positioning during meals.

Right Photo: Caregivers use pieces of foam inserted between this child's knees.

THE CHILD'S HEAD IS NOT SUPPORTED

When feeding, it is important that a child's head is upright, facing forward, with their chin slightly tucked. For some children, this requires extensive support as they cannot maintain this position on their own. Ideally, fitted feeding chairs will allow the child to reach this position. However, sometimes it can be difficult to find a chair with the proper head support for every child. Also, it is possible that even with proper head support, the child will need additional help keeping their head in position for an entire meal. Some possible head support options include:

- ⇒ A rolled towel or blanket wrapped around the child's neck with a loose rubber band to hold it in place
- ⇒ A travel pillow
- ⇒ Caregiver uses their arm to provide head and neck support

Top Left Photo: Caregivers use towels and a hair tie to create head and neck support for a child.

Top Right Photo: Caregivers use a travel pillow to support a child's head and neck positioning.

Bottom Left Photo: Caregivers use a blanket to support a child's trunk, head, and neck by wrapping it around his upper body.

Things that DO NOT work for supporting a child's head positioning and can make it worse:

- Ø Tilting a child's head backwards
- Ø Placing a hand on the child's forehead or face to hold it upright
- Ø Forcibly holding a child's head in a position

NO CHAIRS ARE AVAILABLE OR FIT THE NEEDS OF A CHILD

Finding a chair that suits each child's needs can be challenging. Further, sometimes even after modifying a chair, it still isn't appropriate for a child. Getting creative by making your own chairs can be a valuable and effective solution. Some possible chair options include:

- ⇒ Building chairs, tables, and trays with the help of community partners such as local carpenters
- ⇒ Creating chairs out of buckets or trash cans
  - Cut portions of the side out and insert cushioning for added support and comfort
- ⇒ Creating chairs, tables, and trays out of boxes
  - Cut portions of a cardboard box out and use duct tape to reinforce sides
  - Tape or adhere together milk boxes or other sturdy containers

Caregivers created a supportive seat made entirely out of milk boxes and tape.

SELF FEEDING: Helping a child learn how to feed themselves is an important step in development as well as a valuable life skill. This encourages a child to develop more skills and independence and reduces the burden for caregivers in the long run. However, not all children are able to use utensils and cups easily. Here is a common issue with self-feeding and a few creative ways to help address it:

CHILD CANNOT HOLD ON TO UTENSILS AND CUPS OR HAS DIFFICULTY MOVING TO THEIR MOUTH

If a child has difficulty using their hands and arms, they may also have trouble grabbing, holding, and scooping food with utensils. Additionally, they may have difficulty holding onto cups. You can help a child learn to use utensils and cups with greater success by adapting current utensils and cups or making your own to fit their specific needs. Some possible adaption options include:

- ⇒ Using hair ties, rubber bands, or Velcro straps to attach to a utensil and a child's hand
- ⇒ Using tire rubber, wood, or tennis balls to attach to a utensil for easier grabbing and holding
- ⇒ Bending utensil handles to allow for easier self-feeding
- ⇒ Cutting plastic cups or bottles to make cut-out "nosey" cups
- ⇒ Making arm rockers out of wood, plastic, or foam
- ⇒ Adding handles to cups or bowls with the help of community partners such as local carpenters or potters

Caregivers use a Velcro strap around a young boy's hand and spoon which helps him hold on to it and feed himself.

Look at a child's mobility challenges and physical strengths and develop ways to improve their feeding experience.

Getting creative helps us find new avenues for supporting the skills, development, and independence of every child.

9J: FEEDING STRATEGIES AND TECHNIQUES

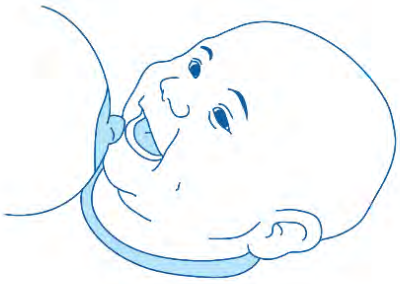
STRATEGIES TO SUPPORT BOTTLE FEEDING, SPOON FEEDING, AND CUP DRINKING:

① Stimulations stroking technique
② Jaw and chin support
③ Lip and cheek support for sucking
④ Lip and chin closure technique
⑤ Bottle Press down technique
⑥ Pacing technique
⑦ Facial Molding Techniques
⑧ L Shape
⑨ Chin cupping
⑩ Press down technique
⑪ Tonic bite spoon cup removal

1. LIP STIMULATION/STROKING TECHNIQUE

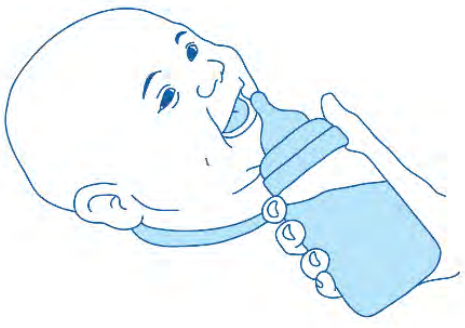
This strategy provides stimulation to a baby's lips eliciting a sucking response from the baby who is breast and/or bottle fed.

BEST FOR: Young babies 0-6 months of age who are breast and/or bottle feeding.



WHEN TO USE:

- Any baby who needs extra encouragement to suck
- The baby who has trouble sucking
- The baby who has a weak or disorganized suck
- The baby who is born early or exposed to substance and may tire easily or has trouble sucking



HOW TO USE:

- Hold baby in a semi-upright position (45-60-degrees). Position baby in an elevated position on a cushion.
- Using the breast or bottle nipple, gently stroke the baby's bottom lip from side to side, pausing after several strokes to allow them a chance to receive the nipple.
- Repeat as necessary.
- Can also use a pacifier in a similar manner prior to offering the nipple.

2. JAW AND CHIN SUPPORT FOR SUCKING (BOTTLE FEEDING)

This strategy provides support to a baby's jaw to assist with sucking from a bottle.

BEST FOR: Young babies 0-6 months of age who are bottle feeding.

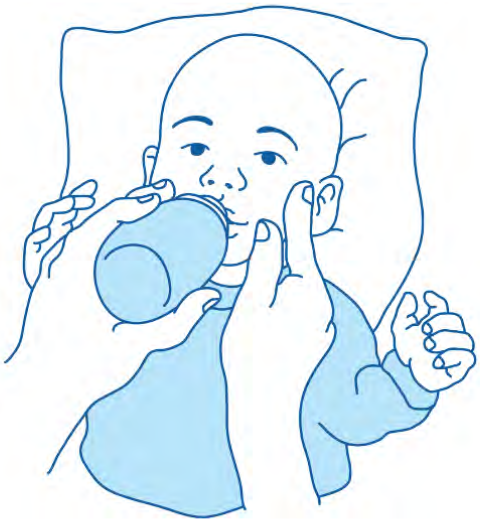
WHEN TO USE:

- The baby who tires easily
- The baby who has trouble sucking
- The baby who has a weak or disorganized suck
- The baby who is born early or exposed to substance and may tire easily or has trouble sucking

HOW TO USE:

- Hold baby in a semi-upright position (45-60-degrees)
- Place one finger under baby's chin and give gentle pressure while offering the bottle.

3. LIP AND CHEEK SUPPORT FOR SUCKING (BOTTLE FEEDING)



This strategy provides support to a baby's cheeks to assist with sucking from a bottle.

BEST FOR: Young babies 0-6 months of age who are bottle feeding.

WHEN TO USE:

- The baby who tires easily
- The baby who has trouble sucking
- The baby who has a weak or disorganized suck
- The baby who is born early or exposed to substance and may tire easily or has trouble sucking

HOW TO USE:

- Hold baby in a semi-upright position (45-60-degrees) or position baby in an elevated position on a cushion.
- Using your thumb and one finger (one on each cheek), give gentle pressure toward the baby's mouth to help move her lips around the nipple.

<u>Remember:</u> If providing support to cheeks and jaw results in coughing or choking, this type of support should be immediately stopped.

View of Chin Cupping Technique from the side while assisting a baby with bottle feeding.

4. LIP AND CHIN CLOSURE TECHNIQUE

This strategy provides support to a child's lips and chin to assist with closing the lips for feeding.

BEST FOR: Young babies 0-6 months of age.

WHEN TO USE:

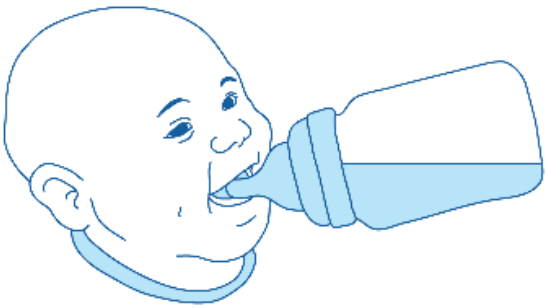
- The baby who has poor lip closure
- The baby who has trouble sucking
- The baby who has a weak or disorganized suck
- The baby who is born early or exposed to substance and may tire easily or has trouble sucking

HOW TO USE:

- Hold baby in a semi-upright position (45-60-degrees) or position child in an elevated, well-supported seated position.

- Using your thumb (slightly under bottom lip) and index finger (on chin), support the baby's bottom lip and bony part of the chin giving gentle pressure toward the baby's mouth to help move his lips around the nipple.

5. PRESS-DOWN TECHNIQUE (BOTTLE FEEDING)



This strategy provides gentle support to a baby's tongue to elicit and encourage sucking from a bottle.

BEST FOR: Young babies 0-6 months of age who are bottle feeding.

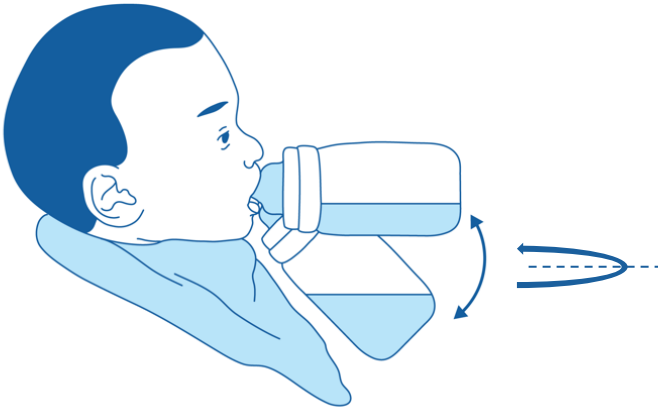
WHEN TO USE:

- Any baby who needs extra encouragement to suck
- The baby who tires easily
- The baby who has trouble sucking
- The baby who has a weak or disorganized suck
- The baby who is born early or exposed to substance and may tire easily or has trouble sucking

HOW TO USE:

- Hold baby in a semi-upright position (45-60-degrees) or position baby in an elevated position on a cushion.
- Using the bottle nipple, give gentle pressure downward on the middle of the baby's tongue for 1-3 seconds waiting for her to move her tongue around the nipple for sucking.
- Repeat as necessary.

6. PACING TECHNIQUE



This strategy provides short breaks for a baby who is bottle feeding as a way to slow down the feeding process. Paced feedings also mimic the way breastfeeding feels for a baby.

BEST FOR: Young babies 0-6 months of age who are bottle feeding.

WHEN TO USE:

- The baby who tires easily
- The baby who has trouble sucking

- The baby who has a weak or disorganized suck
- The baby who coughs, chokes or gags
- The baby who frequently spits up
- The baby who is born early or exposed to substance and may tire easily or has trouble sucking

HOW TO USE:

- Hold baby in a semi-upright position (45-60-degrees) or position baby in an elevated position on a cushion.
- Bottles should be held horizontally to reduce the flow of liquid.
- Baby is allowed to feed from the bottle for approximately 20-30 seconds (or 3-5 swallows) and then the bottle is tipped gently to the side of baby's mouth or downward. This side or downward action temporarily stops the flow of milk and "paces" the feeding. The bottle is never removed from baby's mouth.
- When baby starts sucking actively again, the bottle is returned to a horizontal position and the feeding resumes.
- Repeat process for the rest of the feeding or until the baby is able to pace feedings on her own.

7. FACIAL MOLDING[15] TECHNIQUES

Facial molding techniques are face massages used to support a child's oral motor development for feeding. They are used directly before a mealtime to stretch and "ready" the muscles of the face for eating and drinking.

Two Facial Molding techniques include:

① Pat-Pat Facial Molding Technique (2-4 finger approach)
② Washcloth Technique

BEST FOR: Slightly older children 6 months of age and beyond who are taking solid foods.

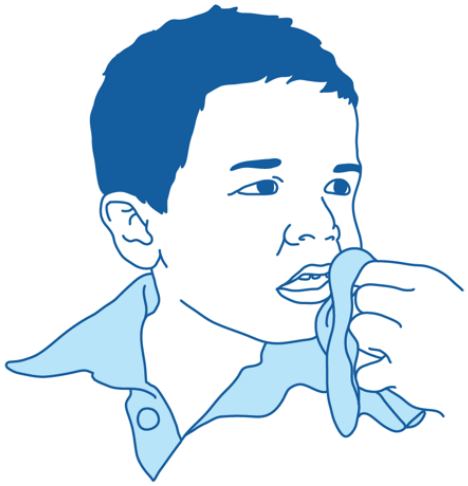
Pat-Pat Facial Molding Technique

WHEN TO USE:

- The child with poor lip closure (open mouth posture)
- The child with lip retraction
- The child with low muscle tone in the face (floppy cheeks)
- The child with high muscle tone in the face (tight cheeks)

HOW TO USE:

- Caregiver is positioned in front of the child or on their side.
- Child is positioned in an upright, well-supported seated position.
- Caregiver places 2-4 fingers high upon the child's cheeks, patting 3 times in a downward motion moving toward the lips. Vibrate the fingers while pulling downward – slowly, deeply, or rapidly. Caregiver repeats this 3 times.
- Caregiver places 2-4 fingers just above upper lip and gently applies pressure while massaging in a downward motion 1 time. This motion should assist the top lip with touching the bottom lip. The longer it is held, the better a child will feel lip closure.
- Caregiver places 2-4 fingers just below the lower lip and gently applies pressure while massaging in an upward motion 1 time. This motion should assist the bottom lip with touching the top lip. The longer it is held, the better a child will feel lip closure.



Washcloth Technique

- Caregiver places 2-4 fingers on the child's lips and gently applies pressure for a final time.
- Repeat the entire process as necessary up to 8-10 times.
- The washcloth technique follows similar steps using a damp, warm washcloth. Instead of patting, wipe each part of the face in a downward motion (from the outer cheeks toward the nose and mouth) and in an upward motion from the chin to the lips. Complete wiping of both cheeks first before moving on to wiping the chin and lips.

TRY USING THE PAT-PAT TECHNIQUE WITH A SONG TO MAKE IT FUN!

Pat-Pat-Pat

Pat-Pat-Pat

Pat-Pat-Pat

Lip Down

Chin Up

Seal it with a kiss! (muah!)

<u>Remember:</u> This strategy should not be used if a child has challenges with or resists handling touch to the face. These techniques should always be done slowly, monitoring a child's toleration and sensitivities and stopping as needed.

8. L-SHAPE TECHNIQUE

This strategy provides support to a child's jaw to assist with opening and closing the mouth for chewing and swallowing.

BEST FOR: Slightly older children 6 months of age and beyond who are taking solid foods.

WHEN TO USE:

- The child with jaw thrust
- The child with a tonic bite response
- The child with poor lip closure
- The child with difficulty controlling the opening and closing of the jaw

HOW TO USE:

- Caregiver is positioned in front of the child.
- Child is positioned in an upright, well-supported seated position.
- Caregiver's thumb is placed on the child's chin or just below the lower lip.
- Caregiver's index finger is placed at the temporomandibular joint (side of face in front of/near ear and upper jaw).
- Caregiver's middle finger is placed under the jaw behind the chin.
- Provide assisted control of the jaw by gently guiding it in an up and down motion while a child eats and drinks.
- Gradually reduce the amount of physical support and control provided to the child as they show greater jaw control.

<u>Remember:</u> This strategy should not be used if a child has challenges with or resists handling touch to the face OR if they have a very strong tongue or jaw thrust.

9. CHIN CUPPING TECHNIQUE

This strategy provides support to a child's jaw to assist with opening and closing the mouth for chewing and swallowing.

BEST FOR: Slightly older children 6 months of age and beyond who are taking solid foods.

WHEN TO USE:

- The child with jaw thrust
- The child with a tonic bite response
- The child with poor lip closure
- The child with difficulty controlling the opening and closing of the jaw

HOW TO USE:

- Caregiver is positioned behind or to the side of the child.
- Child is positioned in an upright, well-supported seated position.
- Caregiver's thumb is placed at the temporomandibular joint (side of face in front of/near ear and upper jaw).
- Caregiver's index finger is placed on the child's chin or just below the lower lip.
- Caregiver's middle finger is placed under the jaw behind the chin.
- Provide assisted control of the jaw by gently guiding it in an up and down motion while a child eats and drinks.
- Gradually reduce the amount of physical support and control provided to the child as they show greater jaw control.

View of Chin Cupping Technique from the side while assisting a child with cup drinking using a cut-out cup.

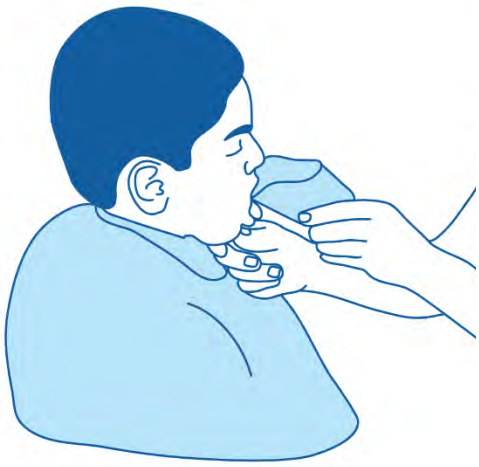
10. PRESS-DOWN TECHNIQUE (SPOON FEEDING & CUP DRINKING)

This strategy provides support to a child's tongue and jaw to assist with reducing a tongue thrust and making eating, drinking, and swallowing easier.

BEST FOR: Older children 6 months of age and beyond who are taking solid foods and learning to drink from a cup.

WHEN TO USE:

- The child who has a tongue thrust

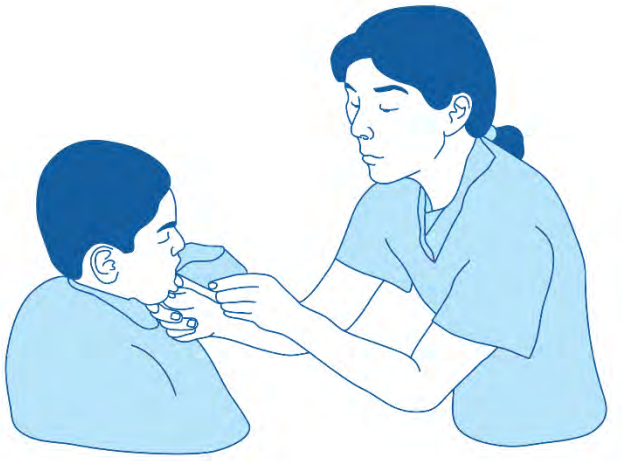


HOW TO USE:

- Caregiver is positioned in front of the child at eye level --- not above them.
- Child is positioned in an upright, well-supported seated position.
- *Spoon Feeding:* Place a level spoon on the center of the tongue and apply firm downward pressure while offering firm pressure under the chin using a finger. Remove spoon and repeat as necessary.
- *Cup Drinking:* Place a cup on the lower lip below the tongue while offering firm pressure under the chin (to the tongue). Remove cup and repeat as necessary.

11. TONIC BITE SPOON/CUP REMOVAL TECHNIQUE

This strategy provides support to a child's jaw to assist with opening the mouth and releasing a spoon or cup from a tight bite.



BEST FOR: Children 6 months of age and beyond.

WHEN TO USE:

- The child with hypertonicity
- The child with hyperreactivity
- The child with difficulty controlling the opening and closing of the jaw and a tendency to clench the jaw

HOW TO USE:

- Reduce external stimulation during the feeding (dim lights, reduce noise, limit visual distractions, etc...)
- Help the child become calmer and less tense.
- When the child is biting down, relax and apply light pressure on the bottom of his chin.
- Wait to feel the jaw drop and then remove the spoon or cup from his mouth.
- If this does not help, gently guide the child's head forward (chin to chest) as a way to naturally open the mouth and release the utensil or cup.

Remember: Never try to remove a utensil or cup by forcefully pulling. The harder you pull on the utensil or cup, the stronger the reflex will become. A child's jaw will clamp down tighter on the utensil or cup making a release more challenging and causing possible damage to his teeth and gums.

CAREGIVERS IN ACTION

L-Shape Technique with cup drinking.

Press-Down Technique with Spoon Feeding

Pacing Technique with Bottle Feeding

Pat-Pat Technique

Chin Cupping Technique (slightly different positioning of caregiver's arm) with cup drinking.

Horizontal bottle holding for Pacing Technique.

Lip Stroking Technique with Bottle Feeding.

9K: ACTIVITIES FOR CALMING AND WAKING BABIES AND CHILDREN

Babies and children will feed best when they are calm and alert. This chart offers suggestions for ways to help calm and wake children of all ages for participating in daily feeding routines — and throughout other moments during the day.

Calming activities are most often used with the child who has a hypersensitive sensory system.

Waking/Alerting activities are most often used with the child who has a hyposensitive sensory system.

CALMING ACTIVITIES

- Use activities that calm a child's body before feedings, especially if they become overstimulated.

① *Use rhythmic, repetitive touch, movements and sounds to calm and soothe a child such as:*

- ⇒ patting on the back or bottom using a rhythmic pattern
- ⇒ making a repetitive "shushing" sound
- ⇒ bouncing gently using a steady rhythm
- ⇒ rocking in arms or a chair using a steady rhythm
- ⇒ swinging or swaying in arms using a steady rhythm
- ⇒ singing
- ⇒ listening to soothing music or music with a strong and steady beat
- ⇒ massaging the body using a rhythmic pattern

② *Offer age-appropriate objects to suck on, mouth or chew before and after meals such as:*

WAKING/ALERTING ACTIVITIES

- Use activities that wake or alert a child's body before feedings, especially if they tend to be understimulated.

① *Use gentle activities before or during feedings or that wake a child if she has fallen asleep such as:*

- ⇒ changing her diaper
- ⇒ changing her clothes
- ⇒ stroking her feet
- ⇒ holding and talking to her
- ⇒ bouncing gently
- ⇒ patting on the back or bottom
- ⇒ burping

② *Offer age-appropriate objects or activities to wake up the face and mouth before eating such as:*

- ⇒ facial or body massage
- ⇒ toothbrushes (vibrating or regular)
- ⇒ teethers

- ⇒ pacifiers or binkies
- ⇒ Teethers
- ⇒ Oral motor objects (ChewyTubes, Chewelry, ARK Chew Toys, etc.)
- ⇒ a child's hands or fingers are OK too

③ *Provide dim lighting or a darker room with minimal visual distractions before, during or after feedings for calming an upset child.*

④ *Feed in a quiet space with minimal sounds and voices.*

⑤ *Interact using slower rates of movement, softer voices or sounds and reduced animation.*

⑥ *Use consistent activities and routines so a child knows what to expect, which reduces stress and creates calmness.*

⑦ *Swaddle, wear, hold or carry a child.*

- ⇒ Oral motor objects (ChewyTubes, Chewelry, ARK Chew Toys, etc.)

③ *Provide brighter lighting or a room with more light and/or sound before, during or after feedings for a sleepy child.*

④ *Feed in a space with typical noise and sound levels.*

⑤ *Interact using faster rates of movement, louder voices or sounds and increased animation.*

⑥ *Use consistent activities and routines so a child knows what to expect, which reduces stress and creates a readiness for participating in feeding.*

⑦ *Use a well-supported position or seating that engages a child's entire body.*

9L 1: HANDOUTS FOR CAREGIVERS AND COMMUNITIES – BREASTFEEDING TIPS

GETTING BABY TO LATCH: BABY'S CUES

Babies have distinct signs (or cues) that they use to show caregivers when they are hungry and full. Recognizing a baby's feeding cues can be incredibly helpful for successful breastfeeding. When mothers are able to notice early cues that a baby is hungry, breastfeeding is often much smoother.

FEEDING CUES:

- ⇒ Hands to mouth
- ⇒ Sucking on their hands or fingers
- ⇒ Increased movement of the mouth and/or tongue
- ⇒ Rooting (turning the head to the side when the lips/cheeks are touched)
- ⇒ Subtle body movements
- ⇒ Increased alertness
- ⇒ Slight opening of the eyes
- ⇒ Flexed arms and/or legs and clenched fists

This baby is becoming more alert and mouthing his hand to show that he is hungry.

Crying is the last feeding cue that a baby provides when they are hungry. It will happen when all other subtler feeding cues have been missed by the caregiver.

GETTING BABY TO LATCH: BASIC STEPS FOR LATCHING

[17]STEPS	DESCRIPTIONS (WHAT IT LOOKS LIKE)
① *Nose to Nipple* 	○ Aim baby's nose to the nipple of the breast. ○ Once aligned, move baby 2.5-7.5 cm (1-3 inches) away from the nipple.
② *Head Tilt* 	○ After aiming, baby's head will slightly tilt back allowing her mouth to gape open for latching. ○ Gently bring baby back to the breast to latch.
③ *Latch On* 	○ Baby latches onto the breast and begins to suck. ○ Repeat above steps if baby does not gape mouth or latch well.

GETTING BABY TO LATCH: LIP STIMULATION

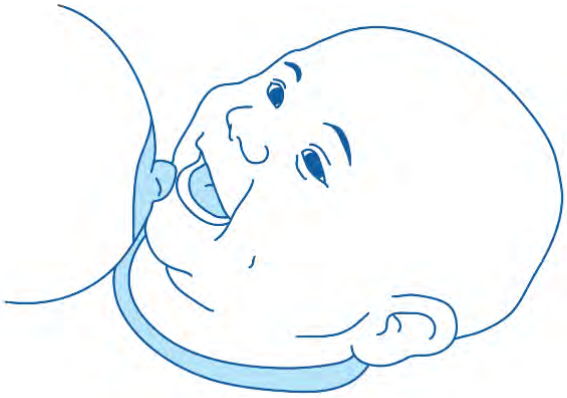
Sometimes babies will need gentle stimulation (or touch) to their lips using the nipple to encourage them to open their mouths widely and begin sucking. This is called lip stimulation.

Directions:

① Lightly touch the nipple to the baby's lower lip, gently moving it from side to side. This should stimulate a wide, open mouth (gape) from baby.

② Wait for baby to open her mouth widely.

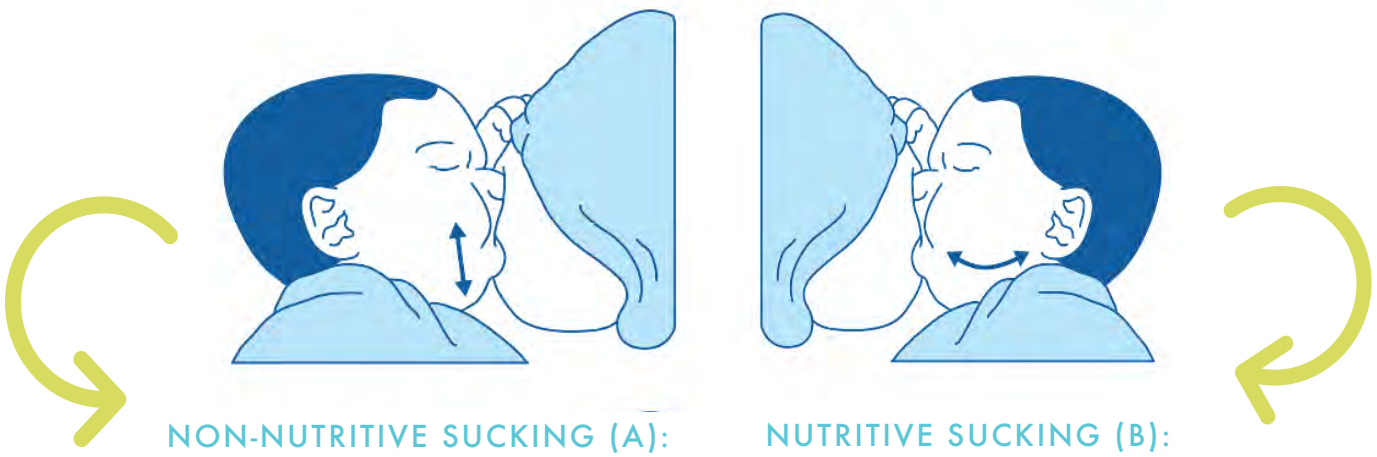
③ After opening her mouth, gently move baby toward you so she can latch onto the breast.



Bring baby to you instead of bringing the breast to baby.

GETTING BABY TO LATCH: SUCKING TO EAT? OR SUCKING FOR COMFORT?

Babies will use breastfeeding for nourishment (nutritive sucking). Babies will also use breastfeeding for comfort (non-nutritive sucking) where they are not seeking to receive breastmilk and become full. Sucking is a powerful movement that not only helps babies grow and be well nourished, but it also helps them become calm and happy. It is very common for babies to use both nutritive and non-nutritive sucking during the day and night. It is helpful to understand this difference and recognize when a baby is sucking for food or for pleasure, especially when there are concerns about if a baby is getting enough to eat from the breast.



NON-NUTRITIVE SUCKING (A):

Jaw moves in an up and down (piston-like) motion.

NUTRITIVE SUCKING (B):

Jaw moves in a back and forth (rocker-like) motion.

GETTING BABY TO LATCH: SKIN TO SKIN

When a baby can be close to his mother and/or father and have his skin touch theirs, it is incredibly calming. It is also helpful for getting a baby ready to breastfeed. Skin to skin (also called "Kangaroo Care") is when a mother or father holds a bare baby to their own bare chest. This is a wonderful way for new babies to adjust to living outside of their mother's womb. It can be done as often as a baby needs, and is typically most beneficial for newborn babies.

A mother and father practice skin to skin with their newborn babies.

9L 2: HANDOUTS FOR CAREGIVERS AND COMMUNITIES – FEEDING AND INTERACTION CUES

CHILD COMMUNICATION AROUND FEEDINGS[15]

Young babies and children have many ways they communicate their wants and needs. Through the use of sounds, body movements and facial expressions (also known as cues), children let caregivers know when they are ready to eat and are enjoying interactions, and also when they need a break or are full. Cues are important because they help caregivers understand the needs of children when they cannot speak. When caregivers recognize and respect these cues, feedings and interactions with children are much more successful. Use this chart and photos as a reference for identifying cues and letting them guide your responses to the children in your care.

Some cues are obvious and others are subtle. The two main types of cues shared in this manual are:

① Engagement Cues – "ready to go" cues
② Disengagement Cues – "ready to break" cues

ENGAGEMENT CUES

- Eyes bright and wide
- Eyebrows soft but raised
- Facial brightening
- Smiling
- Gazing at others
- Giggling
- Cooing and babbling (making happy sounds)
- Feeding sounds (sucking, smacking lips or tongue)
- Turning head and body toward caregiver and food or liquid
- Hands to mouth
- Hands under chin
- Hands on stomach
- Hands open and fingers loosely flexed
- Reaching arms toward caregiver and/or food or liquid
- Smooth, slow body movements (not jerky, tight or flailing)

DISENGAGEMENT CUES

- Dull looking eyes and face
- Eyebrows furrowed or lowered
- Facial grimacing (frowning), pouting, crying
- Wrinkled forehead
- Eyes blinking or closed tightly
- Looking away from others
- Lip compression (lips pressed tightly together)
- Fast breathing
- Increased sucking noises and movements
- Fussing, whining or whimpering
- Coughing, choking, gagging, spitting, spitting up or vomiting
- Yawning or hiccupping
- Head shaking
- Turning head and body away from caregiver and food or liquid
- Hand to ear, eye or back of head and neck
- Halt hand ("no" signal with hands)
- Joining hands together
- Finger splaying and extension
- Grabbing onto own clothes and/or body
- Pounding on tray/table or waving arms up and down
- Pushing or pulling away from food or caregiver
- Arms and/or legs stiff or straightened
- Leg kicking
- Crawling or walking away
- Falling asleep quickly during feedings

ENGAGEMENT CUES

Facial Brightening

Bright, Wide Eyed

Gazing at Others

Smiling and Hand to Mouth

Hand to Mouth

Turning Head to Caregiver

Engagement cues are signs that a child is becoming hungry and they are ready to interact with you.

When a child shows these cues, she is giving you the green light to offer her food and interaction.

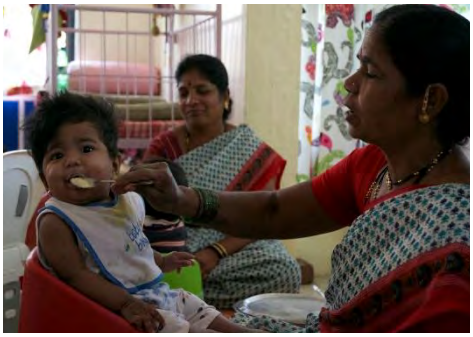
DISENGAGEMENT CUES

Cry Face or Grimace

Finger Splaying and Extension

Yawning

Grabbing onto self



Head Turn and Furrowed Brow

Furrowed Brow and Hand to Ear

Disengagement cues are signs that a child is full or the interaction they are having is too overstimulating.

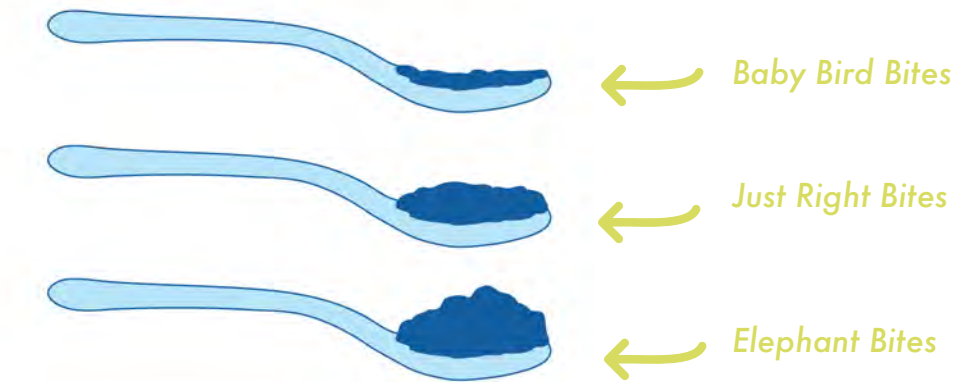
When a child shows these cues, he is giving you the red light to stop feeding him, give him a break and help him become calm. Incorporating calming activities can be helpful (refer to Appendix 9K).

Crying is the last cue that a baby uses to show when he is hungry. Catching early cues that a baby is hungry before they begin to cry, can lead to easier feedings and happier babies. Watch for cues – not the clock.

9L 3: HANDOUTS FOR CAREGIVERS AND COMMUNITIES – BITE AND SIP SIZES

BITE SIZES

Bite sizes for children should be a size that is easily and safely manageable for them. No matter a child's age or the food texture they are eating, the size of a bite must match a child's capabilities. Too big of a bite can lead to difficulty eating, choking, food refusals and even aspiration. It is always best to start small and gradually increase bite size as a child shows readiness.



SMALLEST

LARGEST

[15]BITE SIZES	DESCRIPTIONS (WHAT IT LOOKS LIKE)
Baby Bird Bites 	○ A very small amount of food on the spoon. ○ Works well for children in the early stages of feeding or children with feeding and swallowing challenges, who are safest and most successful with small amounts of food at a time.
Just Right Bites 	○ A small to moderate amount of food on the spoon. ○ Works well for children with typical feeding skills or adequate spoon feeding experience, who can handle a little more food at a time.
Elephant Bites 	○ Too much food on the spoon – a heaping amount. ○ Challenging for all children with or without feeding challenges. Too much food at a time is unsafe and should be avoided.

SIP SIZES

Just as with bite sizes, sip sizes for children should be a size that is easily and safely manageable for them. No matter a child's age or the liquid consistency they are drinking, the size of a sip must match a child's capabilities. Gulping (too big of a sip) or offering consecutive sips (lots of sips and swallows of a liquid without a break) for a child can lead to difficulty drinking, frequent coughing and choking, refusals to drink and even aspiration. It is always best to start small and gradually increase sip size as a child shows readiness.

DO ENCOURAGE	DON'T ENCOURAGE
✓ Small sips that require only one swallow	Ø Gulping (large sips) that require multiple swallows
✓ Single sips at a time	Ø Consecutive (multiple) sips one after another
✓ Breaks between sips – especially for children with feeding and swallowing challenges who need more time to swallow	Ø Drinking entire contents from a bottle or cup all at once without a break
✓ A forward head position for drinking from a bottle, cup or straw	Ø An over extended head or neck tilt backward when drinking from a bottle, cup or straw
✓ Slowly increasing sip size and/or rate of drinking as a child shows readiness	Ø Drinking large sips at a fast rate when a child shows they are having trouble by coughing, choking, turning a different color, frequent illness, etc.

The Best Way to Keep a Child Safe is by offering food and liquids in small amounts and at a slow rate. Always follow a child's lead, letting them guide you when they are ready for a larger bite and sip or a somewhat faster pace.

9L 4: HANDOUTS FOR CAREGIVERS AND COMMUNITIES – POSITIONING CHECKLISTS

FEEDING POSITIONING CHECKLIST FOR THE CHILD 0-6 MONTHS OLD

Follow these positioning guidelines when feeding babies 0-6 months old to decrease the risk of aspiration, illness and to increase safety and comfort during feedings.

AT 0-6 MONTHS A BABY'S:

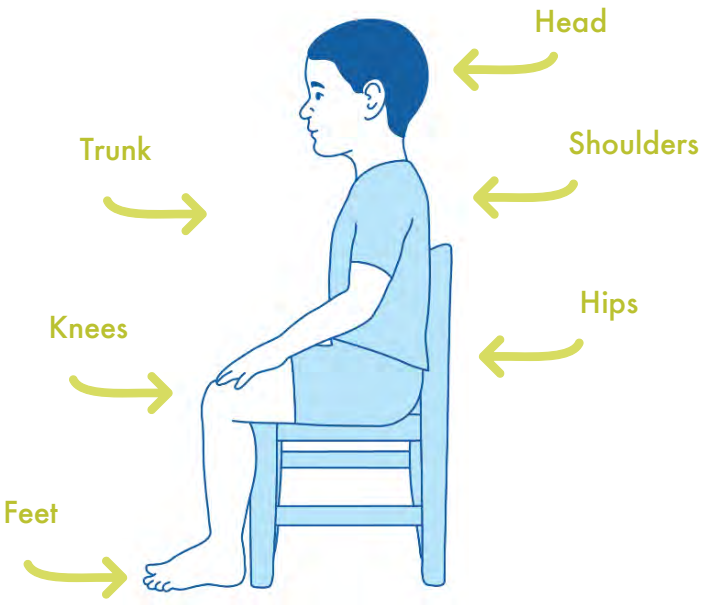
- ☐ head is centered and in midline position
- ☐ body is swaddled (0-4 months)
- ☐ chin is slightly tucked forward
- ☐ shoulders are naturally rounded
- ☐ body is supported firmly by a caregiver's body, arms and chest
- ☐ hips should be lower than their head

FEEDING POSITIONING CHECKLIST FOR THE CHILD 6 MONTHS AND OLDER

Follow these positioning guidelines when feeding children 6 months and older to decrease the risk of aspiration and illness and to increase safety and comfort during feedings.

AT 6 MONTHS AND OLDER A CHILD'S:

- ☐ hips should be positioned at 90-degrees and lower than the head
- ☐ body (trunk) should be upright and well supported by caregiver's body or chair – not leaning forward, backward or to either side
- ☐ shoulders should be level and facing forward
- ☐ head is centered and in midline, neutral position with chin slightly tucked
- ☐ knees should be at a 90-degree angle
- ☐ feet flat on floor, foot rests or against caregiver's body



9L.5: HANDOUTS FOR CAREGIVERS AND COMMUNITIES – DENTAL (ORAL) CARE AND TOOTHBRUSHING[9,30]

HEALTHY TEETH AND HEALTHY CHILDREN

All children can have problems with their teeth; however, children with disabilities are much more vulnerable. Specific problems may include cavities, tooth decay or rot and diseases of the teeth and gums. Oral health or hygiene is the preventative practice of keeping the mouth (teeth, tongue, cheeks and lips) clean and healthy by using regular routines such as brushing, flossing and rinsing.

A primary health need for every child is having a clean mouth. Children with special needs often rely on others to maintain good oral health. This means caregivers play a critical role in sustaining healthy mouths for the children in their care.

PROBLEMSASSOCIATED WITH UNHEALTHY TEETH AND GUMS

- ⇒ Increased risk of cardiac (heart) disease
- ⇒ Increased risk of pneumonia and other respiratory illnesses
- ⇒ Increased pain or discomfort in the mouth (with or without eating/drinking)
- ⇒ Reduced intake of food or liquid due to pain or discomfort
- ⇒ Misalignment or loss of teeth

WHY ARE CHILDREN WITH DISABILITIES MORE VULNERABLE?[37]

Children with special needs are at greater risk of developing poor oral health compared to other children for many reasons. Certain conditions have higher associations such as behavioral, cognitive (thinking) or mobility (movement) challenges or problems with swallowing, gagging or gastroesophageal reflux. These difficulties can be obstacles for maintaining appropriate oral health.

SPECIFIC CONDITIONS THAT PLACE CHILDREN AT RISK

- ⇒ Cleft lip and/or palate or other structural differences of the mouth, face or head
- ⇒ Cerebral palsy
- ⇒ Down syndrome
- ⇒ Visual impairments
- ⇒ Hearing impairments
- ⇒ Seizure disorders
- ⇒ Developmental/learning disabilities
- ⇒ HIV infection

OTHER FACTORS

When a child ...

- cannot easily move his lips, tongue and cheeks for eating and drinking, he will miss out on the natural cleaning that occurs with these structures.
- cannot move or coordinate her arms and hands, she may have trouble brushing or flossing.
- does not have enough saliva, she may have trouble moving food pieces out of her mouth.
- is on a restricted diet or does not take food or liquid orally, his mouth may be dry and grow unhealthy bacteria that can make him sick.
- is on certain medications, she may experience bleeding or swelling of the gums and tooth decay.
- is using bottles for a prolonged time, he may have excessive rotting of the teeth and/or issues with alignment.
- is given excessive amounts of sticky or sweet food/liquid, she may have rotting and teeth that are falling out.

SIGNS OF ORAL HEALTH PROBLEMS

- ⇒ Food or liquid refusals
- ⇒ Preference for softer foods over harder, textured foods
- ⇒ Teeth grinding
- ⇒ Teeth discoloration
- ⇒ Bad breath
- ⇒ Sensitivity to touch in or around the mouth

Introduce oral hygiene and toothbrushing routines as early as possible with babies and children. When the first tooth appears, a child is ready for toothbrushing. Oral hygiene can be taught even sooner.

BASIC ORAL CARE AND TOOTHBRUSHING

Every child deserves a clean and healthy mouth. Developing a basic oral care plan for each child does not need to take lots of extra time. Just as washing hands before and after meals, cleaning a child's mouth can smoothly be incorporated into a routine.

Basic Oral Care and Toothbrushing Directions

BEST FOR: All babies and children

WHEN TO DO:

- Daily, recommended 2-3 times a day. Usually after daily meals/snacks or after waking up and before going to bed.

HOW TO DO:

- Hold the child upright in arms or have them positioned upright in a comfortable seated position.
- Use clean water with a toothbrush, finger brush or a soft warm cloth.
- Show the child the brush or cloth and offer it for sucking, mouthing or biting with supervision. (This may need to happen many times before attempting to clean a child's mouth.)
- As the child shows acceptance, gradually begin massaging her lips, tongue, cheek pockets and exposed teeth and gums using the brush or cloth. This may be very brief at first (5-10 seconds) or up to 2 minutes.
- Repeat as necessary before and after meals during the day.
- Repeat following other events when the mouth may need to be cleaned (for example: following illness or vomiting).

Ideally, children should be provided proper oral care at a minimum of three times each day. Children with special needs require care more often. It is recommended to clean their entire mouths before and after every single meal. This can prevent illness and disease as well as aspiration if they are laid down too soon following a meal and have food left in their mouths.

THE 1-2-3 GAME[38]

This is a helpful method that works well with children with sensitive sensory systems, discomfort with oral care or for those who have had limited oral care experiences. This game helps a child build trust in their caregiver during oral hygiene routines. They learn that the touch, or experience, will never go beyond "3."

Directions:

① Show the child the brush or cloth.
② Touch the area of the body that the child is most comfortable with (for example: the lips, a hand, a shoulder or inside the mouth).
③ For each touch with the brush or cloth, count out loud to the child "1-2-3." Never count to 4!
④ At "3" the touching stops and the brush or cloth is removed from the child's body.
⑤ The brush or cloth is placed on the child's body again (same body part or slightly closer to the target — inside of the mouth) and the counting starts again "1-2-3."
⑥ Repeat this process as the child allows, moving closer to the inside of the mouth.
⑦ Once in the mouth, this process stays the same. Count out loud "1-2-3" while touching or brushing the tongue, cheeks and teeth.
⑧ HINT: Start by counting quickly to make the touch brief. As the child allows, gradually begin counting more slowly ("1 … 2 … 3 …" → "1 ..... 2 ..... 3 ....." → "1 ..... 2 ..... 3 .....".

For babies and children with sensitive sensory systems or those who have limited oral care experience, it is important to start with short cleanings in order to keep the experience positive.

TIPS FOR SUPPORTING HEALTHY MOUTHS AND TEETH

① **Lend a hand.** Children with disabilities will most likely need some type of support (from minimal to total) for oral hygiene (mouth/teeth cleaning) routines. Proper oral care should be provided every day and multiple times for each child.

② **Get creative.** Choose a toothbrush that fits each child's physical abilities and sensory preferences. For children who may have trouble holding a toothbrush, choose one with a shorter and thicker handle. Modify a brush by making the handle thicker using foam or tape. If a child shows dislike of brushes, try a cloth or finger brush instead.

③ **Offer lots of practice.** Allow lots of opportunities for a child to or participate in oral hygiene routines each day. The more often a child uses a toothbrush, the easier these routines will become and the sooner he will be able to take over this care himself.

④ **Slow and brief.** When first starting to incorporate oral care with a child, offer short experiences and slowly work toward the inside of a child's mouth. A child may not allow touch to the mouth or even the face. Respect what she can tolerate and gradually grow the length and quality of their oral hygiene routine.

⑤ **Don't start at the mouth.** Some children may not be receptive to touch on or in the mouth. Offering touch/massage to other parts of the body first such as the hands and arms and gradually working toward the face and mouth is a helpful strategy. Respect what a child can tolerate and gradually grow the length and quality of their oral hygiene routine.

⑥ **Have fun.** Make oral care fun by being playful each time. Going slowly and respecting what a child is able to tolerate in each moment will also keep things positive.

⑦ **Offer healthy options.** Limit a child's exposure to sweet foods or drinks that may contain lots of ingredients that are harmful for the teeth and gums (for example: sugar).

⑧ **Limit bottles.** Children who use bottles for a long time are more likely to have tooth decay. If a child needs a bottle for rest, try offering water instead of milk or formula — clean her mouth directly after she's finished drinking milk or formula from the bottle.

⑨ **Find a dentist.** A child should see a dentist (tooth/mouth doctor) as soon as his first tooth appears. After that, every child should receive regular dental care throughout the year. This way, if problems arise, they can be quickly addressed before they become serious.

9M: COMMON FEEDING ISSUES AND SOLUTIONS QUICK CHARTS

COMMON BOTTLE FEEDING ISSUES AND SOLUTIONS

COMMON ISSUES	POSSIBLE SOLUTIONS
Nipple flow rate is too fast	○ Use pacing to slow flow (Appendix 9J) ○ Use a different position that slows flow (side-lying, seated upright) ○ Hold the bottle horizontally – avoid holding vertically ○ Use a slower flow nipple (smaller hole, smaller level number)
Nipple flow rate is too slow	○ Use a faster flow nipple (larger hole, larger level number) ○ Use a different position that increases flow rate (cradle position) ○ Hold the bottle slightly more vertically
Feedings take longer than 30 minutes	○ Determine the main reason why ○ Check positioning and follow key elements of positioning (Chapter 1, Section 1) ○ Check flow rate and adjust as needed: A flow rate that doesn't match child's skills will lead to longer, less efficient feedings ○ Allow ample breaks if child tires easily ○ Offer smaller, more frequent feedings across the day and night ○ Talk, sing and interact with child during feedings to increase engagement and feeding rate
Fussing when feeding	○ Determine the main reason why ○ Use a different position ○ Use calming strategies before and during feeding (Appendix 9K) ○ Check flow rate and adjust as needed: Too fast or slow of a flow leads to a frustrated, fussy child ○ Offer breaks for a child (burping, patting, rocking) ○ Offer a pacifier for soothing until child can calmly feed
Falling asleep when feeding	○ Determine the main reason why ○ Use a different position that may increase child's alertness ○ Check flow rate and adjust as needed: Too fast or slow of a flow leads to a frustrated, stressed and tired child ○ Watch for feeding cues that indicate when a child is hungry and full (Appendix 9L-2) ○ Talk, sing and interact with child during feeding to increase engagement ○ Use waking/alerting strategies before and during feeding (Appendix 9K)
Choking, coughing or gagging when feeding	○ Determine the main reason why ○ Use a different position that decreases incidence (more upright) and follows key elements of positioning (Chapter 1, Section 1) ○ Check flow rate and adjust – often a slower rate using a slower flow nipple works best

	○ Use pacing to slow flow (Appendix 9J) ○ Offer breaks for a child (burping, patting, rocking) ○ Consider thickening liquids as a last resort (Appendix 9E)
Refusing bottles	○ Determine the main reason why ○ Use a different position that may increase child's comfort ○ Use calming strategies before and during feeding (Appendix 9K) ○ Check flow rate and adjust as needed: Too fast or slow of a flow → frustrated, stressed child and bottle refusals ○ Watch for feeding cues that indicate when a child is hungry and full (Appendix 9L-2) ○ Use a different bottle, nipple or both ○ Avoid force feeding
Spitting up during and/or after bottles frequently	○ Determine the main reason why ○ Use a different position that decreases incidence (more upright) and follows key elements of positioning (Chapter 1, Section 1) ○ Check flow rate and adjust as needed: Too fast a flow → increased spitting up ○ Watch for feeding cues that indicate when a child is hungry and full (Appendix 9L-2) ○ Avoid overfeeding ○ Offer frequent burping breaks for a child ○ Keep child in an upright position for at least 20 minutes or longer following all feedings ○ Offer a pacifier before and after feedings to reduce spitting up ○ Avoid placing hands on stomach directly after feedings ○ Consider thickening liquids as a last resort (Appendix 9E)

COMMON CUP DRINKING ISSUES AND SOLUTIONS

COMMON ISSUES	POSSIBLE SOLUTIONS
Coughing, sputtering or choking with cup drinking	○ Determine the main reason why ○ Use a different position that decreases incidence (more upright with head forward facing and chin parallel with ground) and follows key elements of positioning (Chapter 1, Section 1) ○ Use smaller sized cups that are easy for child to hold ○ Offer support holding and providing single, small sips for child ○ Offer small amounts of liquid at a time in a cup ○ Offer frequent opportunities to practice cup drinking ○ Encourage small, single sips and a slow rate of drinking ○ Consider thickening liquids to reduce flow rate (Appendix 9E)
Dumping liquid out of cup	○ Offer frequent opportunities to practice cup drinking ○ Drink from a cup with a child to help them learn ○ Offer small amounts of liquid at a time in a cup

	○ Provide positive feedback for a child when they use a cup correctly and do not dump liquid ("Nice job drinking from your cup, Abel.")
Sticking tongue into the cup	○ Use a different position that offers good body stability and follows key elements of positioning (Chapter 1, Section 1) ○ Offer support holding and providing single, small sips for child ○ Offer frequent opportunities to practice cup drinking ○ Consider thickening liquids slightly or using naturally thickened liquids to slow rate of liquid– gradually reduce thickness as child becomes more confident and successful at cup drinking (Appendices 9E, 9F)
Shaking head or pushing away cup – Refusing cups	○ Watch for feeding cues that indicate when a child is hungry or thirsty and full (Appendix 9L-2) ○ Use calming strategies before and during feeding (Appendix 9K) ○ Use a different position that may increase child's comfort ○ Use a different cup ○ Slow down the pace of drinking ○ Drink from a cup with a child to help them learn ○ Offer frequent opportunities to practice cup drinking ○ Offer frequent opportunities to play with cups without fluid in them to become more comfortable (during and outside of meals)

COMMON SPOON FEEDING ISSUES AND SOLUTIONS

COMMON ISSUES	POSSIBLE SOLUTIONS
Sitting upright in chair is difficult	○ Determine the main reason why ○ Ensure child is of appropriate age and showing necessary developmental skills for spoon feeding (Chapter 1, Section 6) ○ Use a different position or modify current position to one that offers additional body support and follows key elements of positioning (Chapters 1, Section 1) ○ Use a different chair, table or seating arrangement ○ Offer frequent opportunities to build physical strength for sitting upright outside of meals ○ Ensure meals are no more than 30 minutes ○ Consider shorter, more frequent meals during the day if child's positioning challenges are due to fatigue
Opening mouth for spoon does not occur or is inconsistent	○ Start meals with a dry spoon. When the child is accepting a dry spoon, try dipping the spoon in food and then increasing the amount as they accept. ○ Watch for feeding cues that indicate when a child is hungry or thirsty and full (Appendix 9L-2) ○ Check positioning, modify as needed, and follow key elements of positioning (Chapters 1, Section 1)

	○ Offer frequent opportunities to play with spoons during and outside of meals to increase child's comfort ○ Offer frequent opportunities to practice spoon feeding ○ Eat from a spoon with a child to help them learn ○ Use a different spoon ○ Reduce distractions during feedings (face child away from busy rooms and lots of people, reduce noise, dim lighting) ○ Avoid force feeding
Feedings take longer than 30 minutes	○ Determine the main reason why ○ Check positioning and follow key elements of positioning (Chapters 1, Section 1) ○ Offer smaller, more frequent feedings ○ Talk, sing and interact with child during feeding to increase engagement and participation ○ Consider modifying utensils to support child's success with self-feeding (Appendix 9I) ○ Consider modifying food textures (or offering an easier texture alongside) if current texture may be challenging or requires a significant amount of effort from the child (Appendices 9E, 9F)
Fussing or refusing spoon	○ Determine the main reason why ○ Watch for feeding cues that indicate when a child is hungry or thirsty and full (Appendix 9L-2) ○ Use calming strategies before and during feeding (Appendix 9K) ○ Use a different position that may increase child's comfort ○ Use a different spoon ○ Slow down the pace of feeding ○ Offer frequent opportunities to practice eating from a spoon ○ Offer frequent opportunities to for child to feed themselves ○ Talk, sing, snuggle and interact with child during feeding to soothe
Choking, coughing or gagging when feeding	○ Determine the main reason why ○ Use a different position that decreases incidence (more upright with head forward facing and chin parallel with ground) and follows key elements of positioning (Chapters 1, Section 1) ○ Slow down the pace of feeding if feeding child ○ Offer smaller bites of food (Appendix 9L-3) ○ Encourage small, single bites, a slow rate of eating and breaks between bites if child is self-feeding ○ Offer frequent opportunities to practice spoon feeding ○ Consider modifying food texture (or offering an easier texture alongside) to one that decreases incidence (Appendices 9E, 9F)

COMMON SELF-FEEDING ISSUES AND SOLUTIONS

COMMON ISSUES	POSSIBLE SOLUTIONS
Accessing utensil, bowl/plate, cup is difficult due to physical, visual or cognitive impairments	○ Ensure child is appropriate age and showing necessary developmental skills for spoon feeding (Chapter 1, Section 6) ○ Use a different position or modify current position to one that offers additional body support and follows key elements of positioning (Chapter 1, Section 1) ○ Use a different chair, table, or seating arrangement ○ Adapt utensils, cups, plates and bowls to match child's specific needs (Appendix 9G) ○ Use bowls and plates that stick to surfaces and don't easily move during meals ○ Use mats, plates or baking pans with edges that help a child find food more easily ○ Offer frequent opportunities to practice self-feeding
Dropping food from utensil frequently	○ Watch for feeding cues that indicate when a child is hungry and thirsty and full (Appendix 9L-2) ○ Offer frequent opportunities to practice using spoons ○ Eat from a spoon with a child to help them learn ○ Use a different spoon – child may need smaller size or lighter weight (Appendix 9H) ○ Offer small amounts of food at a time on a spoon ○ Offer food textures that stick to a spoon and don't easily slip off ○ Provide positive feedback for a child when they use a spoon correctly (i.e., Wow, well done eating with your spoon, Simone.")
Feedings take longer than 30 minutes	○ Determine the main reason why ○ Check positioning and follow key elements of positioning (Chapter 1, Section 1) ○ Offer smaller, more frequent feedings ○ Talk, sing and interact with child during feeding to increase engagement and participation ○ Consider modifying utensils, cups, plates and bowls to support child's success with self-feeding (Appendix 9I)
Refusing to feed self	○ Determine the main reason why ○ Watch for feeding cues that indicate when a child is hungry or thirsty and full (Appendix 9L-2) ○ Use calming strategies before and during feeding (Appendix 9K) ○ Use a different position that may increase child's comfort ○ Use a different spoon ○ Offer frequent opportunities to practice eating from a spoon and feeding themselves ○ Offer opportunities for child to see others feeding themselves during and outside of meals ○ Offer support feeding child, gradually encouraging them to participate more in the process

Choking, coughing or gagging when feeding	○ Determine the main reason why ○ Use a different position that decreases incidence (more upright with head forward facing and chin parallel with ground) and follows key elements of positioning (Chapter 1, Section 1) ○ Encourage small, single bites, a slow rate of eating and breaks between bites if child is self-feeding ○ Cut foods into safe and appropriately sized bites for child ○ Offer frequent opportunities to practice self-feeding ○ Consider modifying food texture (or offering an easier texture alongside) to one that decreases incidence (Appendices 9E, 9F)

COMMON SENSORY FEEDING ISSUES AND SOLUTIONS

COMMON ISSUES	POSSIBLE SOLUTIONS
Transitioning to different textures or flavors is challenging	○ Ensure child is appropriate age and showing necessary developmental skills for transitioning to new texture ○ Offer frequent opportunities to explore foods (see, smell, touch) without any pressure for child to eat them during or outside of meals ○ Offer new textures or flavors alongside food a child is already familiar with and enjoys ○ Offer one new texture or flavor at a time ○ Offer small amounts of new textures or flavors at a time ○ Offer new textures or flavors often across many meals to increase child's comfort and interest ○ Offer opportunities for child to see others eating new textures and flavors ○ Avoid force feeding ○ Avoid making any other changes to mealtime routines when introducing a new texture or flavor
Child doesn't want to touch foods	○ Offer frequent opportunities to explore foods (see, smell, touch) without any pressure for child to eat them during or outside of meals ○ Offer opportunities for child to practice getting messy exploring different textures with her hands outside of meals (Play-Doh, sand play, water play, paint, etc.) ○ Offer utensils for child to use for touching foods ○ Avoid forcing a child to touch foods when they aren't ready
Choking, coughing or gagging when feeding	○ Determine the main reason why ○ Use a different position that will decrease incidence (more upright) ○ Use calming strategies before and during feeding (Appendix 9K) ○ Offer frequent breaks for child

	○ Offer frequent opportunities to explore foods (touching, seeing, smelling) ○ Consider modifying food texture (or offering easier texture alongside) to one that decreases incidence (Appendices 9E, 9F)

COMMON POSITIONING ISSUES AND SOLUTIONS

COMMON ISSUES	POSSIBLE SOLUTIONS
Positioning is uncomfortable (for child and/or caregiver)	○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Modify current position (using pillows, cushions, foot rests, etc.) to make more comfortable ○ Use a different position, chair or seat (child and/or caregiver)
Tilting of head or neck to one side	○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use a different position, chair or seat ○ Use small towel or blanket between child's ear and shoulder of leaning side ○ Use U-shaped pillow to support child's head in midline position ○ Reposition child so her head and neck are in midline ○ Feed child at midline and at eye level to encourage proper position
Tilting of head or neck up toward ceiling or sky	○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use a different position, chair or seat ○ Use small towel or blanket rolled behind child's neck ○ Use U-shaped pillow to support child's head in midline position ○ Adjust chair to a more upright position ○ Feed child at midline and at eye level to encourage proper position
Titling of head or neck down toward chest	○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use a different position, chair or seat ○ Add a tray or table for more upper body support for child ○ Adjust chair to a more reclined position ○ Wrap a towel, blanket or strap around the child and chair (between belly and armpits) and gently pull his body into proper midline position ○ Use a U-shaped pillow to support child's head in midline, forward-facing position ○ Feed child at midline and at eye level to encourage proper position ○

Leaning of body to one side	○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use a different position, chair or seat ○ Use a rolled blanket/towel or soft foam and place at side of child's body that is leaning (pelvis to armpit length) ○ Feed child at midline and at eye level to encourage proper position
Stiffening of body backward	○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use a different position, chair or seat ○ Bend child's shoulders and back forward while keeping his knees and hips bent and a slight chin tuck of his head (if holding child) ○ Use calming strategies before and during feeding to reduce excess stimulation (Appendix 9K) ○ Feed child at midline and at eye level to encourage proper position
Slipping out of chair or seat	○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use a different position, chair or seat ○ Add a tray or table close to child's belly for more upper body support ○ Use seatbelt in chair (if an option) ○ Use non-skid mat or material on child's seat to prevent sliding ○ Use a small rolled or folded blanket/towel under child's knees to support her hips ○ Use a pommel towel/blanket/cushion between child's thighs ○ Ensure child has adequate foot support
Planting child's feet on the floor or a foot rest is not possible	○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use a different position, chair or seat ○ Adjust foot support so that child's whole foot makes contact with surface ○ Add or modify existing foot support (books, wood, box, blocks, bricks, bucket, etc.) (Appendix 9I)
No chair or seat is available or fits a child's specific needs	○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use a different position, chair or seat ○ Add folded blankets/towels/cushion for child to sit on to raise her to an appropriate level (for a chair that is too big) ○ Use well-supported floor seating ○ Make appropriately fitted seating out of common objects (box, cardboard, laundry basket, etc.) (Appendix 9I)

COMMON ORAL MOTOR FEEDING ISSUES AND SOLUTIONS

COMMON ISSUES	POSSIBLE SOLUTIONS
Transitioning to different textures is challenging	○ Determine the main reason why ○ Ensure child is appropriate age and showing necessary developmental skills for transitioning to new texture ○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use alerting strategies such as brushing teeth before feeding (Appendix 9K) ○ Use facial molding techniques to wake a child's body for eating (Appendix 9J) ○ Offer frequent opportunities to explore foods (see, smell, touch) without any pressure for child to eat them during or outside of meals ○ Offer easier textures alongside new, harder texture to increase comfort and success (Appendices 9E, 9F) ○ Offer new texture alongside food a child is already familiar with and enjoys ○ Offer small amounts of new texture at a time ○ Offer new texture often across many meals each day to increase child's comfort, practice, and skill ○ Avoid force feeding
Food/liquid frequently falls out of child's mouth	○ Determine the main reason why ○ Ensure child is appropriate age and showing necessary developmental skills for textures and consistencies being offered ○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Try using a different cup or utensil ○ Use alerting strategies such as brushing teeth or using vibrating toys before feeding (Appendix 9K) ○ Use facial molding techniques to wake a child's body for eating (Appendix 9J) ○ Use the Press-Down Technique with spoon feeding and cup drinking (Appendix 9J) ○ For the older child, let them gain feedback by having them eat in front of a mirror ○ Encourage small, single bites, a slow rate of eating and breaks between bites if child is self-feeding ○ If feeding a child, offer small bites and sips at a slow enough rate he can handle ○ Cut foods into safe and appropriately sized bites for child ○ Consider modifying food texture (or offering an easier texture alongside) to one that decreases incidence (Appendices 9E, 9F)

Choking, coughing or gagging when feeding	○ Determine the main reason why ○ Ensure child is appropriate age and showing necessary developmental skills for textures and consistencies being offered ○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use a different position that will decrease incidence (more upright) ○ Try using a different cup or utensil ○ Use alerting strategies such as brushing teeth before feeding (Appendix 9K) ○ Use facial molding techniques to wake a child's body for eating (Appendix 9J) ○ Encourage small, single bites and sips, and a slow rate of eating and drinking if child is self-feeding ○ If feeding a child, offer small bites and sips at a slow enough rate he can handle ○ Cut foods into safe and appropriately sized bites for child and offer small amounts of food and liquids at a time ○ Consider modifying food texture (or offering an easier texture alongside) to one that decreases incidence (Appendices 9E, 9F) ○ Offer frequent breaks for child
Child cannot chew foods adequately	○ Determine the main reason why ○ Ensure child is appropriate age and showing necessary developmental skills for the texture being offered ○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use alerting strategies such as chewing on a ChewyTube before feeding (Appendix 9K) ○ Use facial molding techniques to wake a child's body for eating (Appendix 9J) ○ Offer frequent opportunities to explore foods (see, smell, touch) without any pressure for child to eat them during or outside of meals ○ Offer easier textures alongside new, harder texture to increase comfort and success (Appendices 9E, 9F) ○ Offer new texture alongside food a child is already familiar with and enjoys ○ Offer small amounts of new texture at a time ○ Offer new texture often across many meals each day to increase child's comfort, practice, and skill ○ Eat with a child so he can see how others chew food ○ Offer long, skinny, crunchy, dissolvable finger foods for chewing practice on the teeth ○ Offer foods a child can safely "bite through" for building jaw strength and chewing skills ○ Offer gentle reminders and praise during meals ("Chew your food, Jin." "Nice work chewing your food, Grace!") ○ Always provide 100% supervision during meals as child is at increased risk of choking

Child stuffs mouth with food	○ Determine the main reason why ○ Ensure child is appropriate age and showing necessary developmental skills for textures and consistencies being offered ○ Ensure current position follows key elements of positioning (Chapter 1, Section 1) ○ Use alerting strategies such as brushing teeth or using vibrating toys before feeding (Appendix 9K) ○ Use facial molding techniques to wake a child's body for eating (Appendix 9J) ○ Encourage small, single bites and sips, a slow rate of eating and drinking, and breaks between bites and sips if child is self-feeding ○ Cut foods into safe and appropriately sized bites for child ○ Offer small amounts of food at a time to pace child's rate of eating ○ Offer gentle reminders and praise during meals ("Small bites, Lin." "Nice job taking small bites, Adana!") ○ Consider modifying food texture (or offering an easier texture alongside) to one that decreases incidence (Appendices 9E, 9F)

9N: HOW MUCH SHOULD BABIES EAT?

HOW MUCH SHOULD BABIES EAT?

A typical feeding schedule for the baby 0-12 months of age based on guidelines developed by the American Academy of Pediatrics.

A feeding of breast milk

A serving of formula

A serving of solid foods

0-1 MONTH

Feed BREAST MILK as baby requests or every 2-3 hours (about 8-10 feedings each day). OR 60-90 ml (2-3 fl. oz.) of FORMULA every 3-4 hours (about 6-8 feedings each day).

1-4 MONTHS

Feed BREAST MILK as baby requests or about 6-8 feedings each day. OR feed 120-180 ml (4-6 fl. oz.) of FORMULA every 4-5 hours (about 5-6 feedings each day). The number of feedings will begin decreasing as baby begins to sleep longer at night.

4-6 MONTHS

Feed BREAST MILK as baby requests or about 6 feedings each day. OR feed 180-240 ml (6-8 fl. oz.) of FORMULA about 4-5 feedings each day (total of 960 ml or 32 fl. oz. each day).

6-9 MONTHS

Feed BREAST MILK as baby requests or about 4-6 feedings each day. OR feed a total of 720-960 ml (24- 32 fl. oz.) of FORMULA each day. Begin slowly introducing complementary food such as GRAINS or strained FRUITS and VEGETABLES about 1-2 times each day as baby tolerates. The number of BREAST MILK/FORMULA feedings will decrease as baby begins to accept more solid complementary food. Around 8 months, begin introducing food with slightly more texture.

9-12 MONTHS

Feed BREAST MILK as baby requests or about 4-6 feedings each day. OR feed a total of 720 ml (24 fl. oz.) of FORMULA each day. Begin offering a greater variety of solid food at steadily increasing amounts. For example: 2 servings o FRUIT and VEGETABLES, 1 serving of GRAINS, 1 serving of YOGURT and 1 serving of MEAT/POULTRY each day. (Each serving = ¼ - ½ cup).

CHAPTER 10: DEFINITIONS (LIST OF SPECIAL WORDS USED IN THIS MANUAL)

1. *Animation (of the face):* Similar to facial expressions. Ways to express emotions using movements and positions of the face. For example, smiling, frowning, raising eyebrows to show surprise or squinting the eyes to show anger or frustration.
2. *Aspiration/Aspirate:* When food or liquid pass into the lungs instead of moving into the stomach where they belong. This can lead to illness, malnutrition, dehydration and death.
3. *Astigmatism:* A problem with the eye that causes a person to see things in a distorted, incorrect way.
4. *Breast Engorgement:* When one or both breasts become swollen, hard and painful from too much milk production.
5. *Colic/Colicky:* When a baby experiences significant stomach pain and is extremely difficult to soothe. This condition is typically seen in young babies 0-3 months old and the cause is not known.
6. *Consecutive Sips:* Multiple sips and swallows of a liquid without a break in between sips.
7. *Co-Regulate/Co-Regulation:* The way we interact with others to become calm. For babies and children, learning how to co-regulate (get calm with another person) helps them learn how to get calm on their own (self-regulation).
8. *Cortical Visual Impairment (CVI):* A problem in the brain that affects a person's ability to see. It does not mean a person is blind; however, what they can see and how they see things is impaired and will be different for each person.
9. *Cues:* Sounds, body movements and facial expressions young babies and children use to let caregivers know their wants and needs including when they are ready to eat, enjoying interactions, when they are full or need a break from interactions.
10. *Custodial Caregiving:* When a person takes care of the basic standard needs of a child such as providing food and water, and may assist with other daily activities such as bathing and diapering and toileting.
11. *Desensitize/Desensitizing:* The act or process of making a highly sensitive person less sensitive or reactive to particular sensory information. For example, a child is highly sensitive and bothered by touch to the face. Over time, caregivers slowly and respectfully help the child become less bothered by touch to the face.

12. ***Developmental Delay or Disability:*** A condition impacting children 0-8 years old that disrupts a child's ability to grow and develop as expected in one or multiple areas.
13. ***Diet Advancement:*** When caregivers support a child's movement toward eating a new food texture or drinking a new liquid consistency.
14. ***Disengagement Cues:*** Signals from a baby or young child that mean they are full or overstimulated and need a break from a meal and/or interactions with others.
15. ***Disorganized Sucking Pattern:*** When a baby has an absent or poor sucking rhythm when feeding.
16. ***Engagement Cues:*** Signals from a baby or young child that mean they are hungry, interested in interacting with others or enjoying current interactions.
17. ***Epiglottis:*** A flap of tissue that covers the opening to the airway and the lungs. It helps prevent food and liquid from going in the lungs.
18. ***Esophagus:*** A tube of muscle that helps move food and liquid from the throat to the stomach.
19. ***Exclusive Breastfeeding (EB):*** When a baby is provided only breast milk. Formula, supplementation, water, food or other drinks are not provided. EB is strongly recommended for children 6 months and younger.
20. ***Facial Molding Techniques:*** Face massages used to support the development of a child's face and mouth muscles for feeding. When used before a feeding, they help stretch and ready the muscles of the face for eating and drinking.
21. ***Failure to Thrive (FTT):*** When a baby or child "fails" to grow and develop well as expected for their age. These children often require extra nutritional support such as additional feedings, high calorie food and liquid or tube feedings to increase calories and boost growth.
22. ***Fuss/Fussing/Fussy:*** When a baby or child becomes easily upset. Fussy babies become upset often and they can be very difficult to soothe.
23. ***Gape:*** When a baby's mouth opens and becomes wide in order to accept the breast. A wide gape is needed for a baby to latch to the breast well for feedings.
24. ***Gastroesophageal Reflux (GER):*** When food from the stomach comes back up into the throat causing pain and discomfort.
25. ***Gastroesophageal Reflux Disease (GERD):*** A more serious and long-lasting form of GER that may prevent a baby from feeding well and gaining weight. These babies tend to spit up often, appear uncomfortable and seem hungry but frustrated when feeding.
26. ***Gulp/Gulping:*** Too big of a sip or taking many big sips repeatedly without a break.

27. *Hyperreactive:* When a person shows a strong reaction (increased sensitivity) to sensory information. This reaction is stronger than typically expected.
28. *Hypertonia (High Tone):* Tight, rigid muscles in the body.
29. *Hypersensitivity/Hypersensitive:* When a person shows a strong reaction (increased sensitivity) to sensory information. This reaction is stronger than typically expected.
30. *Hypotonia (Low Tone):* Floppy, weak muscles in the body.
31. *Hyporeactive:* When a person shows a reduced reaction (reduced sensitivity) to sensory information. This reaction is less than typically expected.
32. *Hyposensitivity/Hyposensitive:* When a person shows a reduced reaction (reduced sensitivity) to sensory information. This reaction is less than typically expected.
33. *Latch/Latching:* Refers to how a baby connects or secures his or herself onto the breast for feeding. A good latch is when a baby's mouth covers the area around the bottom of the nipple and holds the breast deeply in the mouth for sucking.
34. *Lip Stimulation:* A strategy for encouraging a young baby to latch to the breast or bottle. When a caregiver gently touches the nipple (breast or bottle) to a baby's lips.
35. *Lovey:* A special age-appropriate object such as a blanket or doll that is meaningful to a child and helps them become calm.
36. *Medically Complex or Fragile:* A baby or child with a medical condition that requires extensive medical support and supervision to prevent deterioration and maintain their health status.
37. *Motor Planning:* Refers to a person's ability to make a plan and carry it out correctly from start to finish using appropriate motor movements. For example, a child decides to take a drink of water. He reaches out his hand, grabs the cup, brings it to his lips, takes a sip and swallows. When a person has motor planning difficulties, following through on these steps can often be slow, inaccurate or disorganized.
38. *Mouthing:* When a baby or child brings objects to the mouth to explore. Mouthing is a typical and important part of development that builds vital skills for eating and talking.
39. *Neurodevelopmental Delays:* Disabilities or disorders caused by problems with the brain and nerves that send messages to other parts of the body. These lead to difficulties in one or multiple areas of development. Examples include: autism spectrum disorders, cerebral palsy, intellectual disabilities, attention-deficit/hyperactivity disorder and vision and hearing impairments.

40. *Neuromuscular Disorders:* Several medical conditions that impact the ways muscles function in the body.
41. *Neurons:* Cells in the body that make up the nervous system.
42. *Non-Nutritive Sucking (NNS):* When a baby breastfeeds for comfort instead of for nourishment.
43. *Nutritive Sucking (NS):* When a baby breastfeeds to receive breast milk for nourishment.
44. *Optimal Caregiving:* When a person takes care of a child's daily needs, but they also provide regular positive, loving interactions.
45. *Oral Motor Skills:* Movements of the mouth including the cheeks, lips, tongue and jaw. This also includes the strength, control and coordination of these movements for feeding and talking.
46. *Organized Sucking Pattern:* When a baby has a coordinated sucking rhythm when feeding.
47. *Orthodontic Nipples:* Bottle nipples and pacifiers made to fit well inside of a child's mouth and be a close alternative to breastfeeding.
48. *Overstimulated/Overstimulation:* When a person shows big responses or reactions to certain sensations or experiences that are greater than would be expected. For example, a child may become overstimulated and upset when placed in a noisy room with lots of people, sounds and movement.
49. *Pace/Pacing:* A strategy that slows down the speed of feedings for babies and children. For bottle feedings, short breaks or pauses are implemented by the caregiver to slow a baby's sucking. For the older child, caregivers offer bites and sips of food at a slower rate that matches what a child can safely manage.
50. *Pharynx:* The throat.
51. *Regulation/Regulate/Regulated:* An essential developmental skill, especially for feeding and interaction. A person's ability to become and stay calm.
52. *Rooting:* When a baby turns her head to the side in response to her lips or cheeks being touched.
53. *Rotary Chew:* A mature chewing pattern where the jaw moves in a rotary (circular) movement in order to properly grind a variety of food textures.
54. *Self-Feeding:* The process of feeding yourself using fingers, utensils and cups. It is the process of setting up, arranging and bringing food and liquid from a plate, bowl or cup to the mouth.

55. ***Self-Regulate/Self-Regulation***: The way we become calm on our own. We learn how to self-regulate after first learning how to co-regulate (become calm with another person).
56. ***Skin to Skin/Kangaroo Care***: When a mother or father holds a bare baby to their own bare chest to assist them with adjusting to living outside of the womb.
57. ***Soft Palate***: Top back portion of the roof of the mouth.
58. ***Specialty Bottles***: Bottles that are specially made to help babies born early or babies born with disabilities such as cleft lip/palate.
59. ***Temporomandibular Joint (TMJ)***: A joint that connects the lower jaw to the skull and supports movements for eating, drinking and talking. Located on the side of the face near the ear and upper jaw.
60. ***Thickening Agents***: Substances that change the thickness and flow of food and liquid.
61. ***Trachea***: The windpipe that leads to the lungs.
62. ***Understimulated/Understimulation***: When a person shows little or no response to certain sensations or experiences than would be expected. For example, a child bangs his head on a table and shows no signs of pain or discomfort. Understimulation can also refer to when a child receives very little appropriate sensory experiences and stimulation which leads to delays in development and interactions.

CITATIONS

1. Ali, S. S. (2013). A brief review of risk-factors for growth and developmental delay among preschool children in developing countries. Advanced Biomedical Research, 2, 91. http://doi.org/10.4103/2277-9175.122523

2. Perry, B. (2017). Advanced Child Trauma Work: The Neurobiology of Helping & Healing [Lecture]. Retrieved from UCDavis - Napa Extension Infant-Parent Mental Health Fellowship Program: May 19, 2017.

3. Brandt, K., Perry, B.D., Seligman, S., & Tronick, E. (Eds.). (2014). Infant and early childhood mental health: Core concepts and clinical practice. Washington, DC: American Psychiatric Publishing.

4. Levitt, P. (2017). Epigenetic's, Environment, Brain Architecture & Behavior [Lecture]. Retrieved from UCDavis - Napa Extension Infant-Parent Mental Health Fellowship Program: January 14, 2017.

5. National Scientific Council on the Developing Child (2009). Young children develop in an environment of relationships (Working Paper No. 1). Retrieved from Center on the Developing Child, Harvard University website: http://developingchild.harvard.edu/wp-content/uploads/2004/04/Young-Children-Develop-in-an-Environment-of-Relationships.pdf

6. Brandt, K. (2017). NCAST Feeding Scale Training [Lecture & Training Course]. Retrieved from UCDavis - Napa Extension Infant-Parent Mental Health Fellowship Program: February 2017

7. VanDahm, K. (Ed.). (2012). Pediatric feeding disorders: Evaluation and treatment. Framingham, MA: Therapro Publishing

8. Aspiration in babies and children. (2018). https://www.cedars-sinai.org/health-library/diseases-and-conditions---pediatrics/a/aspiration-in-babies-and-children.html

9. Morris, S.E. and Klein, M.D. (2000). *Pre-feeding skills: A comprehensive resource for mealtime development, 2nd Edition*. United States of America: Therapy Skills Builders.

10. Williamson, G.G. and Anzalone, M.E. (2001). *Sensory integration and self-regulation in infants and toddlers*. Washington, D.C: Zero To Three: National Center for Infants, Toddlers, and Families.

11. Your 8 Senses. (2018). *STAR Institute for Sensory Professing Disorders*. Retrieved from https://www.spdstar.org/basic/your-8-senses

12. Breastfeeding. (2018). *World Health Organization*. http://www.who.int/topics/breastfeeding/en/

13. Benefits of Breastfeeding for mom. (2018). *American Academy of Pediatrics*. Retrieved from https://www.healthychildren.org/English/ages-stages/baby/breastfeeding/Pages/Benefits-of-Breastfeeding-for-Mom.aspx

14. Contraindications to Breastfeeding or Feeding Expressed Breast Milk to Infants. (March 21, 2018). *Centers for Disease Control and Prevention*. https://www.cdc.gov/breastfeeding/breastfeeding-special-circumstances/contraindications-to-breastfeeding.html

15. Breast is Always Best, Even for HIV-Positive Mothers. (2018). World Health Organization. http://www.who.int/bulletin/volumes/88/1/10-030110/en/ (subscript 4->15)

16. La Leche League International. (2010). The breastfeeding answer book, 3rd revised edition. Schaumburg: La Leche League International. (subscript 5->16)

17. Cadwell, K., and Turner-Maffei, C. (2008). *Pocket guide for lactation management*. Sandury, Massachusetts: Jones and Bartlett Publishers. (subscript 6->17)

18. Baby Bottles and Nipples - A Guide for Moms | Similac®. (n.d.). https://similac.com/baby-feeding/formula/bottles-nipples

19. Fraker, C. and Walbert, L. (2003). *From NICU to childhood: Evaluation and treatment of pediatric feeding disorders*. Austin, TX: Pro-Ed. (subscript 3->19)

20. The IDDSI Framework. (March 4, 2017). http://iddsi.org/Documents/IDDSIFramework-CompleteFramework.pdf (subscript 1->20)

21. Wieder, S. (2018). Bridging the Bifurcation of Infant Mental Health and Development [Lecture]. Retrieved from UCDavis - Napa Extension Infant-Parent Mental Health Fellowship Program: January 6, 2018.

22. Lillas, C. (2017). A Neurorelational Framework (NFR) [Lecture]. UCDavis - Napa Extension Infant-Parent Mental Health Fellowship Program: July 15-16, 2017.

23. Voress, J.K., & Pearson, N. A. (2013). Early Childhood Development Chart – Third Edition. Austin, TX: PRO-ED

24. Pathways.org. (n.d.). All developmental milestones. What milestones should your child be reaching?. https://pathways.org/topics-of-development/milestones/

25. National Institute on Deafness and Other Communication Disorders (NIDCD). (March 6, 2017). Your baby's hearing and communicative checklist. https://www.nidcd.nih.gov/health/your-babys-hearing-and-communicative-development-checklist

26. Johns Hopkins Medicine. (n.d.). Vision milestones. https://www.hopkinsmedicine.org/healthlibrary/conditions/adult/pediatrics/vision_milestones_85,P01093

27. UCSF Benioff Children's Hospital. (2018). FAQ: Baby Bottle Weaning. https://www.ucsfbenioffchildrens.org/education/baby_bottle_weaning/#1

28. Mama Natural (March 28, 2018). Swaddling a baby the right way. https://www.mamanatural.com/how-to-swaddle-a-baby/

29. The Baby Sleep Site (n.d.). How and when to stop swaddling a baby. https://www.babysleepsite.com/sleep-training/how-when-to-stop-swaddling-baby/

30. Klein, M.D. & Delaney, T.A. (1994). *Feeding and nutrition for the child with special needs*. Austin, Tx: Hammill Institute on Disabilities.

31. Children's Hospital of Philadelphia (2018). Age Appropriate Vision Milestones. https://www.chop.edu/conditions-diseases/age-appropriate-vision-milestones

32. Autism spectrum disorder. (March 2018). *National Institute of Mental Health*. https://www.nimh.nih.gov/health/topics/autism-spectrum-disorders-asd/index.shtml

33. Fetal Alcohol Spectrum Disorders. (July 17, 2018). *Centers for Disease Control and Prevention*. https://www.cdc.gov/ncbddd/fasd/facts.html

34. Nationwide Children's Hospital (10/2013). *How and why to thicken liquids*. https://www.nationwidechildrens.org/family-resources-education/health-wellness-and-safety-resources/helping-hands/how-and-why-to-thicken-liquids

35. Capitol Health (2013). *How to puree foods*.
http://www.cdha.nshealth.ca/patientinformation/nshealthnet/0624.pdf

36. Seattle Children's Hospital (2018). *Patient and family resources. Cleft feeding instructions*. https://www.seattlechildrens.org/clinics/craniofacial/patient-family-resources/cleft-feeding-instructions/

37. Health and Safety Notes California Childcare Health Program. (2006). Oral health for children with disabilities and special needs. Retrieved from
https://cchp.ucsf.edu/sites/g/files/tkssra181/f/OralHlthSpNeedsEN103006_adr.pdf

38. Klein, M.D. (2008). Toothbrushing 1-2-3. Retrieved from
https://static1.squarespace.com/static/55c8cf07e4b0d5f0a7213aa3/t/55ccd955e4b06c23489f6721/1439488341913/12-2009Toothbrushing-1-2-3.pdf

PHOTO AND ICON CITATIONS

PART 1:

Part 1.5

"Washing Baby Bottles & Toys" by Lyn Lomasi

Part 1.7

"Sippy Cup photo collection" by Your Best Digs at www.yourbestdigs.com

Part 1 Icons

Lungs by Liam Mitchell from the Noun Project
sick by Adrien Coquet from the Noun Project
Wind by Gregor Cresnar from the Noun Project
Hand by Alexander Wiefel from the Noun Project
Ear by Kamaksh G from the Noun Project
nose by corpus delicti from the Noun Project
tongue by Artem Kovyazin from the Noun Project
hungry by Gan Khoon Lay from the Noun Project
Spoon by Michael Finlay from the Noun Project
mouth by ZIQI HU from the Noun Project
Spoon by Eucalyp from the Noun Project
utensils by David Lopez from the Noun Project
cup and spoon by Creative Stall from the Noun Project
Cup by sahwiyati1000 from the Noun Project
Drink by iconoci from the Noun Project
banana by Arthur Shlain from the Noun Project

PART 2:

Chapter 5

"Cute stuff At Cream coffee shop on Park Blvd." by Peyri Herrera

Part 2 Icons

development by Kyle Louis Fletcher from the Noun Project
Eat routine by dDara from the Noun Project
Conversation by Adrien Coquet from the Noun Project
Writing by RULI from the Noun Project
guidelines by Peter van Driel from the Noun Project
Check by Kimmi Studio from the Noun Project

PART 3

Chapter 8

"Tools for Brain Health "by www.amenclinics.com.

Part 3 Icons

DNA by Arthur Shlain from the Noun Project
BABY FEEDING by Gan Khoon Lay from the Noun Project
Medical cross by Ralf Schmitzer from the Noun Project
Wheelchair Girl by Gabriel Figueiredo from the Noun Project
Wheel by amanda from the Noun Project
strength by S Madsen from the Noun Project
Heart by corpus delicti from the Noun Project
Ribbon by Nicole Hammonds from the Noun Project
hands by Round Pixel from the Noun Project
aging by Adrien Coquet from the Noun Project

Sign by Lumika from the Noun Project
diaper by Marie Van den Broeck from the Noun Project
Father and baby by Gan Khoon Lay from the Noun Project
Skull by BomSymbols from the Noun Project
tongue by corpus delicti from the Noun Project
Lips by Elisabeta from the Noun Project
Traffic Light by W. X. Chee from the Noun Project
race flag by Aldric Rodríguez from the Noun Project
like by IYIKON from the Noun Project
baby bird by Karen Ardila Olmos from the Noun Project
Elephant by Angriawan Ditya Zulkarnain from the Noun Project
dinner plate by HeadsOfBirds from the Noun Project
fetus by Sergey Demushkin from the Noun Project

PART 4:

Chapter 9

"Colgate_ProClinical_Pocket_Pro_Electric_Toothbrush (35)" by electricteeth

Mildly Thick (Nector Thick) Liquid

Part 4 Icons

Milk by Setyo Ari Wibowo from the Noun Project
Food by Shastry from the Noun Project

INDEX

HOLT INTERNATIONAL™

Uplifting children. Strengthening families.

P.O. BOX 2880 | Eugene | Oregon | 97402 |USA | holtinternational.org | Ph 541.687.2202