

PART 4:

APPENDIX STRATEGIES, HANDOUTS, AND INFORMATION FOR CAREGIVERS AND COMMUNITIES

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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

CH. 9|SECTION 9A: FEEDING SKILLS TIMELINE



Diet	<ul style="list-style-type: none"> ⇒ Eating a greater variety of foods ⇒ Taking larger amounts of food and liquid and less often throughout the day
Textures and Consistencies	<ul style="list-style-type: none"> ⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids ⇒ Minced and moist solids ⇒ Soft and bite-sized solids
Skills	<ul style="list-style-type: none"> ⇒ Developing early chewing patterns ⇒ Holding a bottle or cup during feedings and self-feeding foods



Diet	<ul style="list-style-type: none"> ⇒ Taking a greater variety of textured food ⇒ Taking larger amounts of food and liquid and less often throughout the day
Textures and Consistencies	<ul style="list-style-type: none"> ⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids ⇒ Minced and moist solids ⇒ Soft and bite-sized solids
Skills	<ul style="list-style-type: none"> ⇒ Developing more mature chewing patterns ⇒ Biting down through certain food using gums and teeth



Diet	<ul style="list-style-type: none"> ⇒ Eating variety of food textures with growing success
Textures and Consistencies	<ul style="list-style-type: none"> ⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids ⇒ Minced and moist solids ⇒ Soft and bite-sized solids
Skills	<ul style="list-style-type: none"> ⇒ 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	<ul style="list-style-type: none"> ⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids ⇒ Minced and moist solids ⇒ Soft and bite-sized solids ⇒ Regular solids
Skills	<ul style="list-style-type: none"> ⇒ 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	<ul style="list-style-type: none"> ⇒ Thin liquids unless otherwise indicated ⇒ Pureed solids ⇒ Minced and moist solids ⇒ Soft and bite-sized solids ⇒ Regular solids
Skills	<ul style="list-style-type: none"> ⇒ Using fingers and utensils with greater success ⇒ Drinking from a cup with minimal loss of liquid

9B: TYPICAL CHILD MOTOR DEVELOPMENT MILESTONES AND RED FLAGS²⁴

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
BY 6 MONTHS
BY 8 MONTHS
BY 12 MONTHS
BY 15 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.



Holding head upright.
Sitting upright with support.
Relaxed, but sturdy body posture.



Rounded back.
Difficulty holding head and/or body upright.



Stiff body and/or legs.
Crossed legs.
Arms pulled back away from chest.



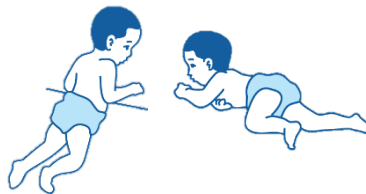
Sitting upright on own.
Reaching out with both arms.



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.



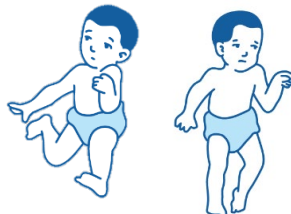
Pulling upright to stand.
Crawling.



Difficulty standing upright.
Stiff legs and/or arms, pointed toes.
Unable to crawl.
Using only one side of the body for crawling.



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

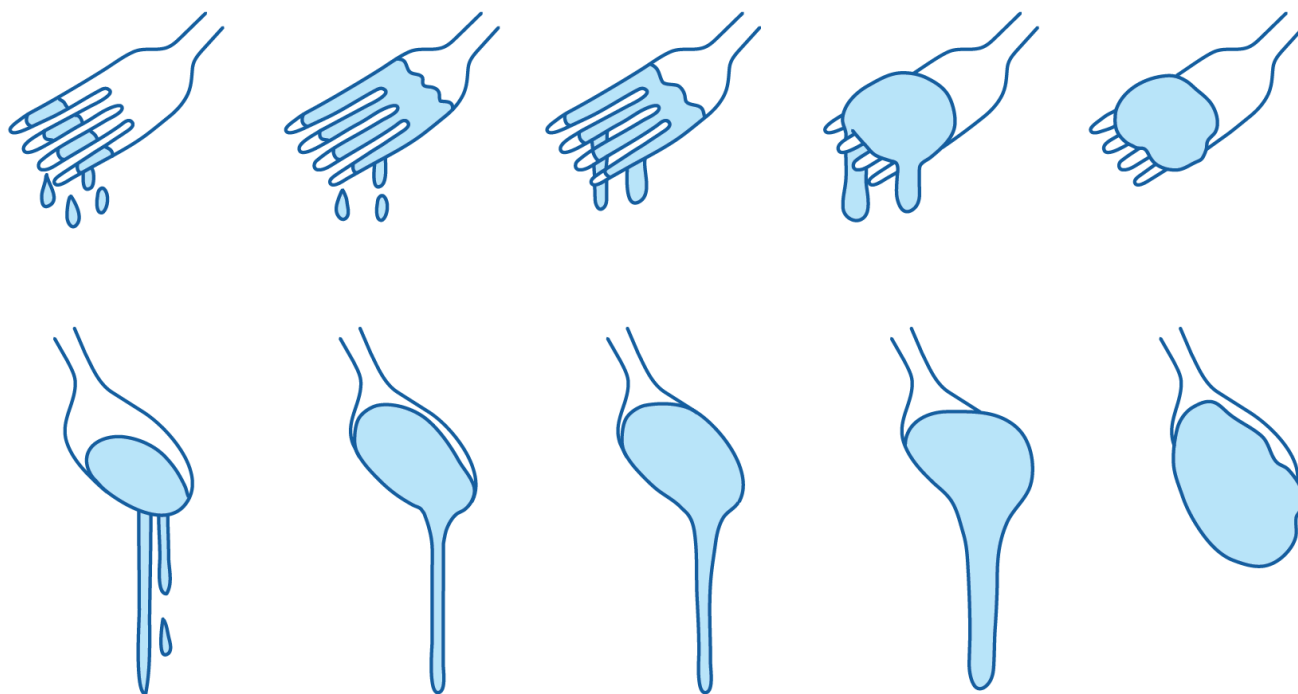


4. MODERATELY THICK LIQUIDS



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)
<p style="text-align: center;">Pureed or Extremely Thick</p>	<ul style="list-style-type: none"> ○ 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 	<ul style="list-style-type: none"> ○ 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
<p style="text-align: center;">Minced and Moist</p>	<ul style="list-style-type: none"> ○ 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 	<ul style="list-style-type: none"> ○ 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)
<p style="text-align: center;">Soft and Bite-Sized</p>	<ul style="list-style-type: none"> ○ 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.) 	<ul style="list-style-type: none"> ○ 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
<p style="text-align: center;">Regular</p>	<ul style="list-style-type: none"> ○ All meats, fish, vegetables, fruits, cheese, eggs, lentils, beans, breads, tortillas, grains, etc. 	

CH. 9|9D: SPECIALIZED FOOD AND LIQUID EXAMPLE LISTS

LIQUID CONSISTENCIES	EXAMPLE LIQUIDS
Thin	<ul style="list-style-type: none"> ○ Water ○ Tea and coffee (nothing added) ○ Broth
Slightly Thick	<ul style="list-style-type: none"> ○ Breastmilk ○ Formula
Mildly Thick	<ul style="list-style-type: none"> ○ Fruit nectars (peach, pear, orange, pineapple, mango, etc.) ○ Tomato juice ○ Milk (cow's, soy, rice, coconut, hemp)
Moderately Thick	<ul style="list-style-type: none"> ○ Runny pureed fruits ○ Runny rice cereals ○ Creamed soups (spinach, potato, asparagus, squash, tomato, etc.) ○ Sauces, gravies, syrups (not runny) ○ Honey
Extremely Thick or Pureed	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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)	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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

SimplyThick, Thick It, Thicken Up, Thick and Easy, Gelmix Thickener

IMPORTANT PRECAUTIONS

- 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 FOOD³⁵

PUREED FOOD CHARACTERISTICS	DIRECTIONS TO MAKE PUREED FOODS
<ul style="list-style-type: none"> ○ 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 	<ol style="list-style-type: none"> 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 the 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	DIRECTIONS TO MAKE MINCED AND MOIST FOODS
<ul style="list-style-type: none"> ○ 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 	<ol style="list-style-type: none"> 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	DIRECTIONS TO MAKE SOFT AND BITE-SIZED FOODS
<ul style="list-style-type: none"> ○ 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 	<ol style="list-style-type: none"> 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

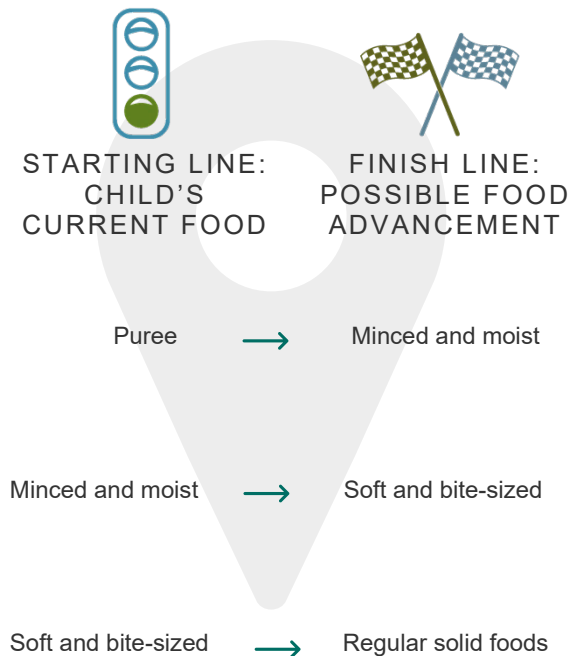


Every child deserves the opportunity to try different food textures and liquid consistencies in a safe and thoughtful manner. If a child never has the chance to try a food or liquid, we will never know what their true skill level is.

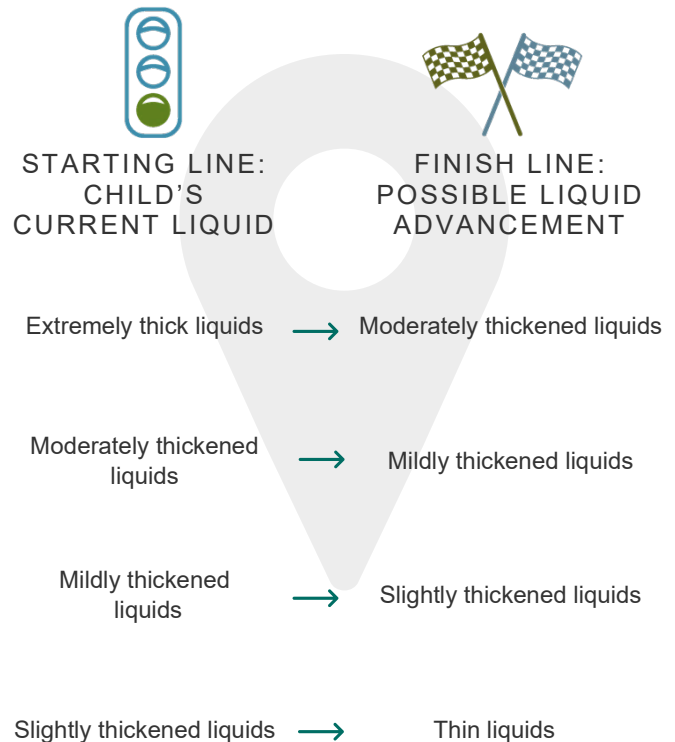
DIET ADVANCEMENT is when caregivers support a child's movement (or advancement) to eating a new food texture or drinking a new liquid consistency. Children with disabilities often need special textures and consistencies. Choosing the right food texture and liquid consistency for any child helps make 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



LIQUID CONSISTENCY ADVANCEMENT ROAD MAP



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:

- ∅ Coughing
- ∅ Choking
- ∅ Sputtering
- ∅ Turning a different color
- ∅ Not breathing or stopping breathing
- ∅ Wet voice quality
- ∅ Watery eyes
- ∅ Facial grimace
- ∅ 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.

BOTTLES³⁶

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. “Premie Nipples” and “Premie 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.

CH. 9|9G: COMMON ITEMS FOR SUPPORTING FEEDING

COMMON ITEMS	EXAMPLES OF WAYS TO USE
<p>Stuffed Animals Pillows Blankets Towels Washcloths Fabric Foam Cushions</p>	<p>⇒ For positioning: Extra physical support for a child during feedings while:</p> <ul style="list-style-type: none"> ▪ Held or seated in caregivers lap ▪ Seated in chair ▪ Seated on floor <p>○ For comfort: Extra physical comfort for a child and caregiver during feedings using these items</p>
<p>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</p>	<p>⇒ For positioning: Extra physical support and stability for a child's trunk, feet and arms while:</p> <ul style="list-style-type: none"> ▪ Held or seated in caregivers lap ▪ Seated in chair ▪ Seated on floor <p>○ For comfort: Extra physical comfort and security for a child and caregiver during feedings using these items</p> <p>⇒ For seating: Additional seating for a child when an appropriate chair/table/etc. cannot be found</p>
<p>Baking sheets Placemats Jars Cans Plastic containers Rubber Tires and Balls, Wood Pieces, Velcro, Tool Handles, Hair Ties, Rubber Bands</p>	<p>⇒ For holding food or liquid: Alternatives for typical feeding supplies such as:</p> <ul style="list-style-type: none"> ▪ Substitutions for plates, bowls and cups <p>○ For assisting self-feeding: Ways to adapt (change) utensils to be more useable by children</p> <ul style="list-style-type: none"> ▪ Using these items with existing utensils and cups making them easier to hold and manipulate
<p>Pillow cases Blankets Towels Fabric Clothing</p>	<p>⇒ For swaddling, wrapping, holding and carrying: Alternatives for typical supplies one might use for holding/wrapping a child</p>

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	<ul style="list-style-type: none"> ○ Holds more food 	<ul style="list-style-type: none"> ○ Usually too large for a small child's mouth ○ Difficult to close mouth around to remove food
Narrow Bowl	<ul style="list-style-type: none"> ○ Usually better sized for a small child's mouth ○ Easier to close mouth around to remove food 	<ul style="list-style-type: none"> ○ Holds less food
Deep Bowl	<ul style="list-style-type: none"> ○ Holds more food ○ Food stays on spoon well 	<ul style="list-style-type: none"> ○ Requires more effort and skills for removing food from bowl
Shallow Bowl	<ul style="list-style-type: none"> ○ Requires less effort and skills for removing food from bowl 	<ul style="list-style-type: none"> ○ Holds less food ○ Food more likely to fall off
Long Handle	<ul style="list-style-type: none"> ○ Easier for caregiver to hold if they are the feeder ○ Less tiring for caregiver to hold 	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ Easier for child to hold if they are the feeder ○ Less tiring for child to hold ○ Easier to aim to mouth for eating 	<ul style="list-style-type: none"> ○ Harder for caregiver to hold if they are the feeder ○ More tiring for caregiver to hold
Metal	<ul style="list-style-type: none"> ○ More durable ○ Easy to find 	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ Lighter, easier and less tiring to hold ○ Less stimulating for sensitive children ○ Less likely to damage a child's teeth and gums 	<ul style="list-style-type: none"> ○ Less durable ○ Can be dangerous if bitten through by children with strong bite reflexes

9I: 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:

- ∅ Tilting a child's head backwards
- ∅ Placing a hand on the child's forehead or face to hold it upright
- ∅ 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 Stimulation 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.

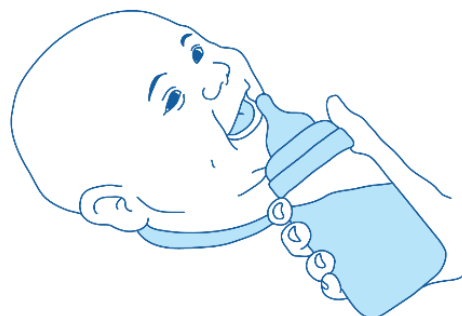
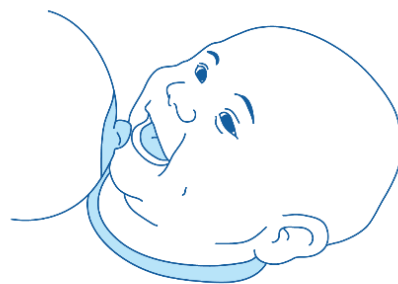
BEST FOR: Young babies 0-6 months of age who are breast and/or bottle feeding.

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.

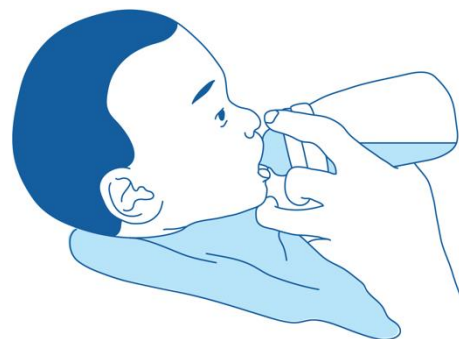
BEST FOR: Young babies 0-6 months of age who are bottle feeding.

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.



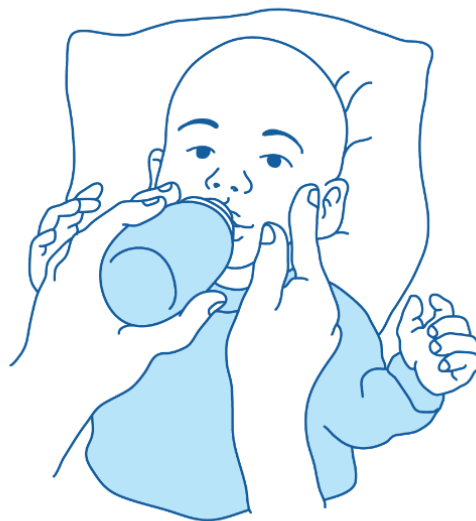
3. LIP AND CHEEK SUPPORT FOR SUCKING (BOTTLE FEEDING)

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.



Remember: *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.



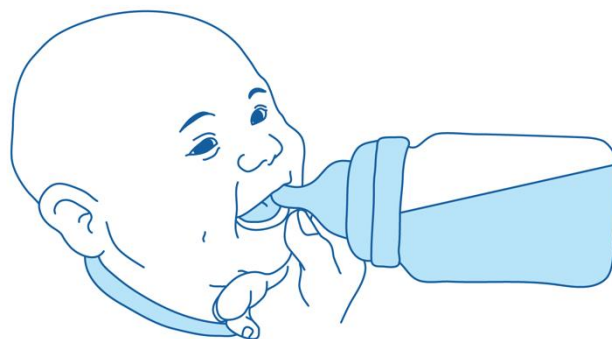
4. LIP AND CHIN CLOSURE TECHNIQUE

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:

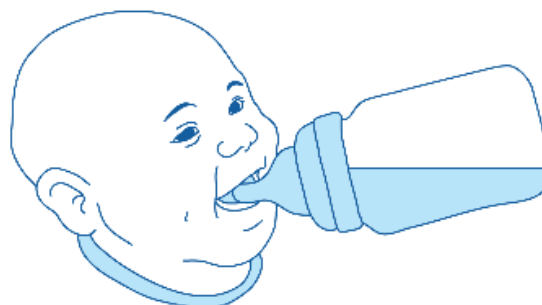
- Hold baby in a semi-upright position (45-60-degrees) or position child in an elevated, well-supported seated position.

- 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 MOLDING¹⁵ 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.

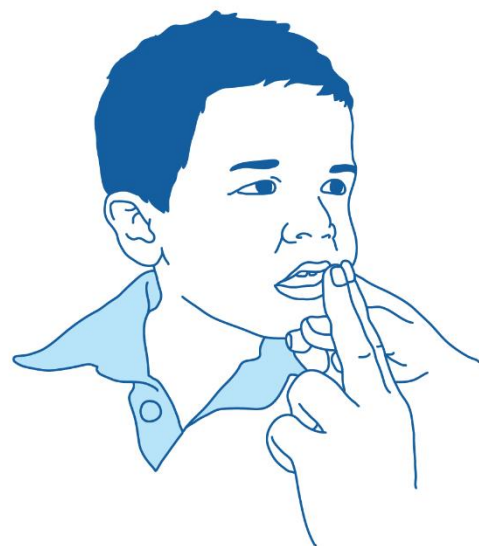
Two Facial Molding techniques include:

- 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.

WHEN TO USE:

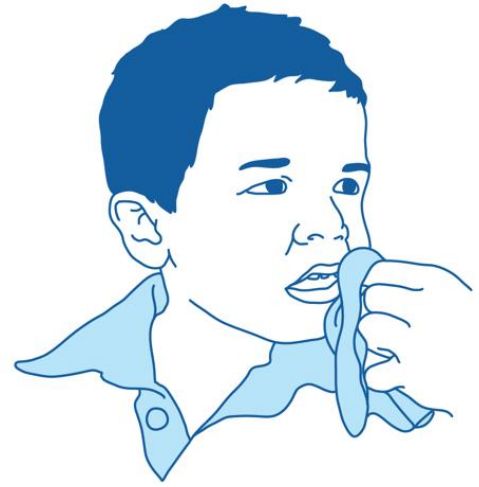
- The child with poor lip closure (open mouth posture)
- The child with lip retraction
- The child with low muscle tone in the face (floppy cheeks)
- The child with high muscle tone in the face (tight cheeks)



Pat-Pat Facial Molding Technique

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.
- 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.



Washcloth Technique



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!)



Remember: 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.



Remember: 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 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:*
 - ⇒ pacifiers or binkies
 - ⇒ Teethers
 - ⇒ Oral motor objects (ChewyTubes, Chewelry, ARK Chew Toys, etc.)

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
 - ⇒ Oral motor objects (ChewyTubes, Chewelry,

⇒ 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.*

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

STEPS	DESCRIPTIONS (WHAT IT LOOKS LIKE)
<p>① <i>Nose to Nipple</i></p> 	<ul style="list-style-type: none"> ○ 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.
<p>② <i>Head Tilt</i></p> 	<ul style="list-style-type: none"> ○ 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.
<p>③ <i>Latch On</i></p> 	<ul style="list-style-type: none"> ○ 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.

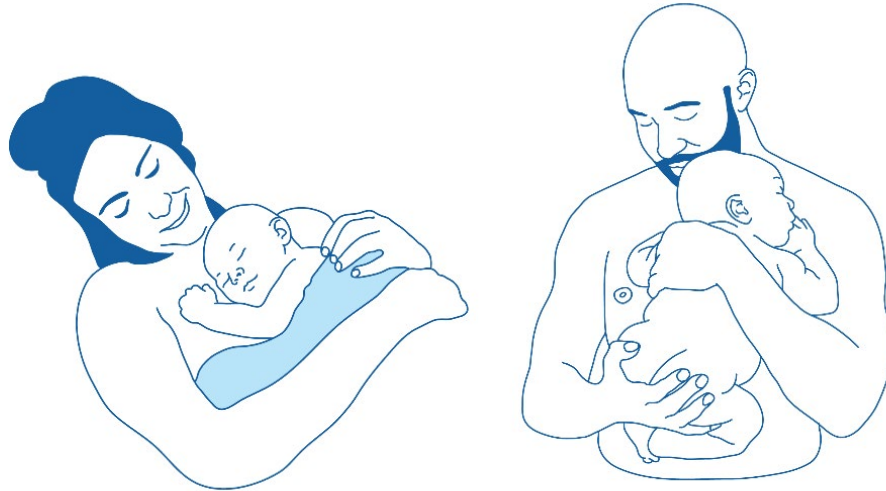


NUTRITIVE SUCKING (B):

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	DISENGAGEMENT CUES
<ul style="list-style-type: none"> ○ 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) 	<ul style="list-style-type: none"> ○ 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 hiccoughing ○ 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



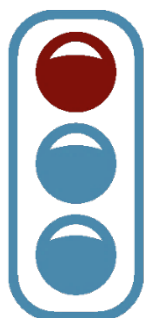
Grabbing onto self



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).*

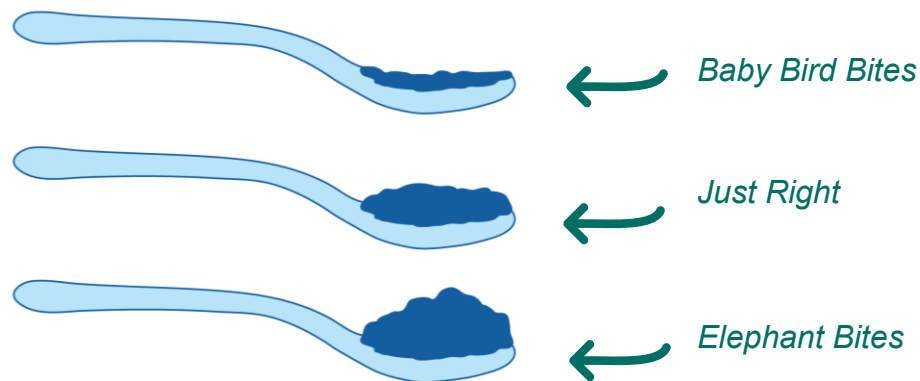


Crying is the last cue that a baby uses to show when he is hungry. Catching early cues that a baby is hungry before they begin to cry, can lead to easier feedings and happier babies. Watch for cues — not the clock.

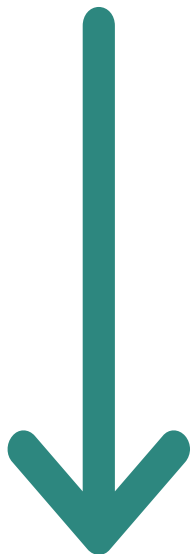
9L 3: HANDOUTS FOR CAREGIVERS AND COMMUNITIES – BITE AND SIP SIZES

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

BITE SIZES	DESCRIPTIONS (WHAT IT LOOKS LIKE)
<p data-bbox="500 1207 665 1234">Baby Bird Bites</p> 	<ul data-bbox="836 1186 1437 1365" style="list-style-type: none"> ○ 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.
<p data-bbox="500 1396 665 1423">Just Right Bites</p> 	<ul data-bbox="836 1396 1437 1543" style="list-style-type: none"> ○ 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.
<p data-bbox="500 1575 665 1602">Elephant Bites</p> 	<ul data-bbox="836 1575 1437 1711" style="list-style-type: none"> ○ 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

- ✓ Small sips that require only one swallow
- ✓ Single sips at a time
- ✓ Breaks between sips — especially for children with feeding and swallowing challenges who need more time to swallow
- ✓ A forward head position for drinking from a bottle, cup or straw
- ✓ Slowly increasing sip size and/or rate of drinking as a child shows readiness

DON'T ENCOURAGE

- ✗ Gulping (large sips) that require multiple swallows
- ✗ Consecutive (multiple) sips one after another
- ✗ Drinking entire contents from a bottle or cup all at once without a break
- ✗ An over extended head or neck tilt backward when drinking from a bottle, cup or straw
- ✗ 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

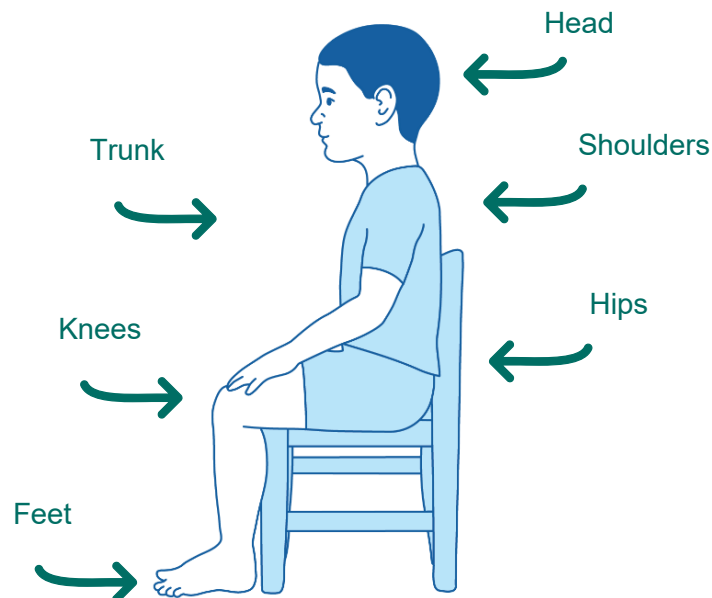
body (trunk) should be upright and well supported by caregiver's body or chair – not leaning forward, backward or to either side

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 disabilities or medical 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.

PROBLEMS ASSOCIATED 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 disabilities or medical 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 disabilities or medical 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 GAME³⁸

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	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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)

CH. 9|9M: COMMON FEEDING ISSUES AND SOLUTIONS

	<ul style="list-style-type: none"> ○ Consider thickening liquids as a last resort (Appendix 9E)
Refusing bottles	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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.")

CH. 9|9M: COMMON FEEDING ISSUES AND SOLUTIONS

<p>Sticking tongue into the cup</p>	<ul style="list-style-type: none"> ○ 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)
<p>Shaking head or pushing away cup — Refusing cups</p>	<ul style="list-style-type: none"> ○ 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
<p>Sitting upright in chair is difficult</p>	<ul style="list-style-type: none"> ○ 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
<p>Opening mouth for spoon does not occur or is inconsistent</p>	<ul style="list-style-type: none"> ○ 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

<p>Feedings take longer than 30 minutes</p>	<ul style="list-style-type: none"> ○ 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)
<p>Fussing or refusing spoon</p>	<ul style="list-style-type: none"> ○ 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
<p>Choking, coughing or gagging when feeding</p>	<ul style="list-style-type: none"> ○ 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
<p>Accessing utensil, bowl/plate, cup is difficult due to physical, visual or cognitive impairments</p>	<ul style="list-style-type: none"> ○ 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
<p>Dropping food from utensil frequently</p>	<ul style="list-style-type: none"> ○ 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.”)
<p>Feedings take longer than 30 minutes</p>	<ul style="list-style-type: none"> ○ 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)
<p>Refusing to feed self</p>	<ul style="list-style-type: none"> ○ 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
<p>Transitioning to different textures or flavors is challenging</p>	<ul style="list-style-type: none"> ○ 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
<p>Child doesn't want to touch foods</p>	<ul style="list-style-type: none"> ○ 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
<p>Choking, coughing or gagging when feeding</p>	<ul style="list-style-type: none"> ○ 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)	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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
Tilting of head or neck down toward chest	<ul style="list-style-type: none"> ○ 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	<ul style="list-style-type: none"> ○ 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)

CH. 9|9M: COMMON FEEDING ISSUES AND SOLUTIONS

	<ul style="list-style-type: none"> ○ Feed child at midline and at eye level to encourage proper position
<p>Stiffening of body backward</p>	<ul style="list-style-type: none"> ○ 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
<p>Slipping out of chair or seat</p>	<ul style="list-style-type: none"> ○ 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
<p>Planting child's feet on the floor or a foot rest is not possible</p>	<ul style="list-style-type: none"> ○ 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)
<p>No chair or seat is available or fits a child's specific needs</p>	<ul style="list-style-type: none"> ○ 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
<p>Transitioning to different textures is challenging</p>	<ul style="list-style-type: none"> ○ 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
<p>Food/liquid frequently falls out of child's mouth</p>	<ul style="list-style-type: none"> ○ 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 of **FRUIT** and **VEGETABLES**, 1 serving of **GRAINS**, 1 serving of **YOGURT** and 1 serving of **MEAT/POULTRY** each day. (Each serving = 1/4 - 1/2 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, 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. Under stimulation 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 UC Davis - 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 UC Davis - 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 UC Davis - 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 Processing 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/\(subscript 4->15\)](http://www.who.int/bulletin/volumes/88/1/10-030110/en/(subscript%204->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>

CH.11: CITATIONS

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/tkssra181f/OralHlthSpNeedsEN103006_adr.pdf
38. Klein, M.D. (2008). Toothbrushing 1-2-3. Retrieved from
<https://static1.squarespace.com/static/55c8cf07e4b0d5foa7213aa3/t/55ccd955e4b06c23489f6721/1439488341913/12-2009Toothbrushing-1-2-3.pdf>

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