



FEEDING AND POSITIONING

Guidelines for Working with Babies and Children



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TOPICS WE WILL COVER

- Malnutrition and feeding challenges
- Feeding basics
- Typical feeding development
- Common feeding challenges and solutions
- Strategies to support bottle feeding, spoon feeding, and cup drinking:
 Hands-On Practice
- Additional ideas for supporting the entire child

OUR GOAL: Offer ideas and tools for caregivers that make all feedings a safe and positive experience for both the child and the feeder.



MALNUTRITION AND FEEDING CHALLENGES

"If we wish to create a lasting peace, we must begin with the children."

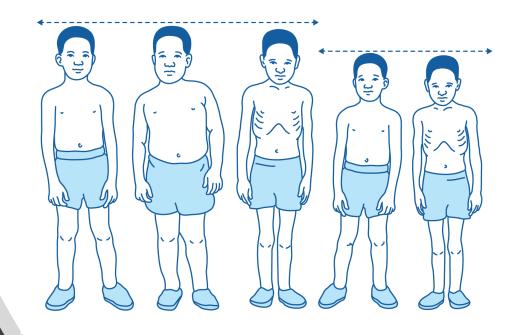
Mahatma Gandhi





WHAT IS MALNUTRITION?

A lack of proper nutrition caused by not having enough to eat, not eating enough of the right things, or being unable to use the food that one does eat.







WHO IS AT GREATEST RISK OF MALNUTRITION? (CONT.)

- Cerebral palsy
- Cleft lip and/or palate
- Fetal alcohol spectrum disorders
- Autism spectrum disorders
- Cardiac (heart) conditions
- Syndromes or neurodevelopmental (brain) conditions (Down syndrome)
- Prematurity (early) or exposure to drugs, stress, etc.
- Hearing or vision impairments





MALNUTRITION RISK FACTORS

Prenatal Factors

No breastfeeding or access to breastmilk

Lack of adaptive (special) seating, bottles, cups, spoons

Diets not customized to fit child's needs

Lack of training in feeding and child development

Limited or lack of time outside

Limited access to medical interventions for feeding and digestion

Caregiver or facility feeding practices do not fit child's needs

Lack of consistent, positive relationships





FEEDING BASICS: POSITIONING

WHAT IS POSITIONING?

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

THE WAY WE POSITION A CHILD DEPENDS ON:

- age
- general developmental skills, especially physical capabilities
- individual needs (higher elevation of body during feeding due to reflux, increased head/trunk support due to low tone)
- o caregiver's abilities
- o resources available in environments







BENEFITS

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

RISKS

- ↓ efficiency of feedings (i.e., slower)
- ↓ oral intake during feedings
- ↓ capacity for children to try different food textures
- ↓ breathing capacity
- ↓ digestion of foods and liquids
- ↓ skills for using vision and hands for self-feeding
- ↓ capacity for children to feed themselves
- ↓ enjoyment during feedings (for children and caregivers)
- ↓ growth and nutrition
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Feet



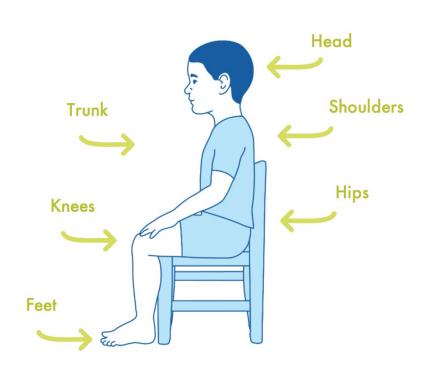
Positioned at 90 degrees Hips Upright, not leaning forward, backward or sideways Trunk Shoulders Level and facing forward Chin slightly tucked toward chest; head upright and Head facing forward Positioned at 90 degrees Knees Supported on the floor, chair footrests or other

object; flat position





KEY ELEMENTS OF POSITIONING











REMEMBER:

Where the feeder sits matters! Sit eye level facing a child so that he does not need to extend his head and neck to see you and reach the food or liquids.



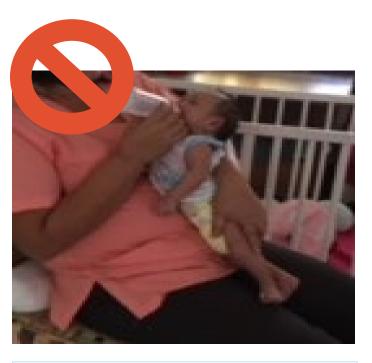




EXAMPLES OF GOOD AND POOR POSITIONING







POOR POSITIONING



POOR POSITIONING

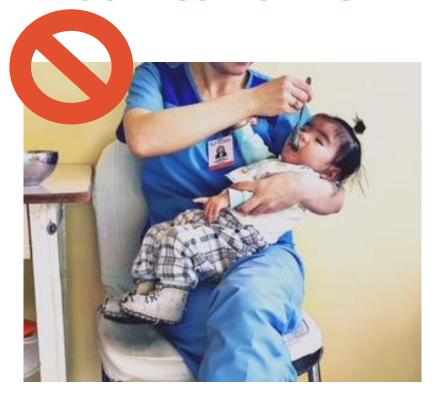




EXAMPLES OF GOOD AND POOR POSITIONING



GOOD POSITIONING

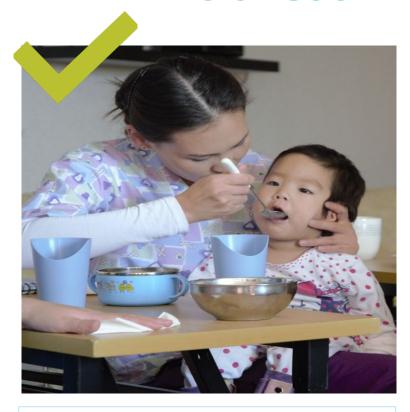


POOR POSITIONING





EXAMPLES OF GOOD AND POOR POSITIONING







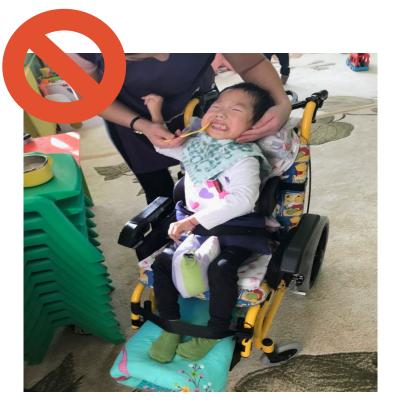
POOR POSITIONING





EXAMPLES OF GOOD AND POOR POSITIONING





GOOD POSITIONING

POOR POSITIONING





POSITIONING TIPS

- Consider individuality of a child.
- Consider child's developmental skill level.
- Consider comfort of the caregiver (yourself!) during a feeding.
- Remember that children grow!
- o Finding the best position can sometimes take a lot of work.



GROUP ACTIVITY: POSITION YOURSELF

ACTIVITY: As a group, practice good positioning with your own body using the 6 Key Elements and discuss your observations.

BONUS:

- Try sitting in a poor position (unstable feet, head/neck extended back, slouched to side, etc.)
- What do you notice?





FEEDING BASICS: SWALLOWING

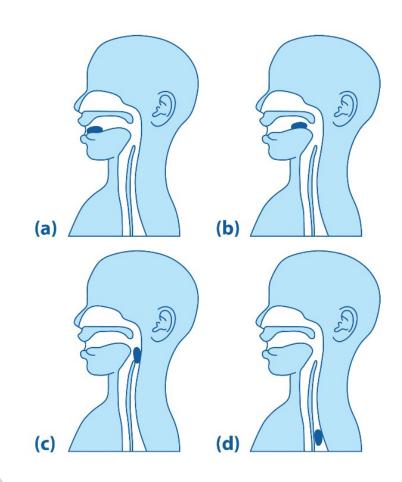
WHAT IS SWALLOWING?

Swallowing is the movement of saliva, liquids and foods from the mouth into the stomach. Swallowing requires coordinated use of 26 muscles!

HOW DO WE SWALLOW?

Swallowing can be separated into four phases:

- Phase 1: Oral Preparatory phase
- o Phase 2: Oral Transit phase
- o Phase 3: Pharyngeal phase
- o *Phase 4:* Esophageal phase





CHALLENGES OR DIFFICULTIES SWALLOWING ARE LINKED WITH THE FOLLOWING RISKS:

- ↓ efficiency of feedings (i.e., slower)
- ↓ oral intake during feedings
- ↓ capacity for children to try different foods and liquids
- ↓ capacity for children to feed themselves
- ↓ growth and nutrition (malnutrition and dehydration)
- enjoyment during feedings (for children and caregivers)
- ↑ INCIDENCE OF ASPIRATION, ILLNESS, DEATH



WHAT IS ASPIRATION?

When food or liquid pass into the lungs instead of moving into the stomach where they belong.

Aspiration can lead to illness, malnutrition, dehydration and even death.





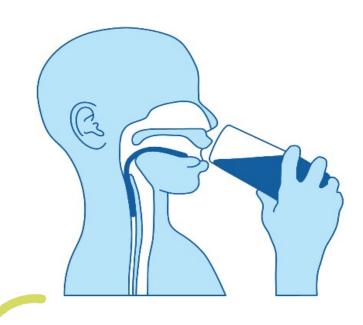


Figure shows normal swallowing and no aspiration with liquid moving down the esophagus.



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





WATCHING FOR ASPIRATION: SIGNS AND SYMPTOMS

*	COUGHING OR CHOKING	Child coughs or chokes during or after swallowing food or liquid
	GURGLY "WET" SOUNDING VOICE OR BREATHING	Child's voice or breathing sounds wet during or after swallowing food or liquid
	COMPLAINTS OF DISCOMFORT	Child experiences sensation of food being stuck in throat during, following and/or in-between meals; or food comes back up into mouth after swallowing
	WATERY EYES	Child's eyes water during or after swallowing food or liquid
	CHANGE IN COLOR	Child's face changes color (pale, red, or purple/blue) during or after swallowing food or liquid



WATCHING FOR ASPIRATION: SIGNS AND SYMPTOMS

	FEVER	Child experiences fever following a meal
	FACIAL GRIMACE	Child displays uncomfortable faces during or following feedings
<u>-</u> 9	CHANGE IN BREATHING	Child's breathing becomes unusually fast or slow, child stops breathing while feeding or child wheezes or gasps for air during or after swallowing food or liquid
	LUNG INFECTIONS	Child experiences infections in the lungs or airway



SWALLOWING TIPS

- Consider individuality of a child.
- Good positioning is KEY.
- Small and slow.
- Adjust texture or thickness of foods and liquids.
- Change how you are feeding a child (different bottle, cup, etc.).
- Finding what works best can sometimes take a lot of work!





GROUP ACTIVITY: SWALLOW IT DOWN

ACTIVITY: In small groups, practice swallowing bites and sips of food/liquid using the 6 Key Elements of Positioning.

BONUS:

- Take a bite of food or sip of liquid when not positioned well.
- Feed a friend!
- What do you notice?





WHAT ARE FOOD TEXTURES AND LIQUID CONSISTENCIES?

Foods and liquids come in a variety of textures and consistencies. They are either naturally this way or they can be altered to be more well-suited for a child.







FOOD TEXTURES

- 1. Pureed/Extremely Thick
- 2. Minced and Moist
- 3. Soft and Bite-Sized
- 4. Regular Solids/Table Foods

LIQUID CONSISTENCIES

- 1. Thin Liquids
- 2. Slightly Thick Liquids
- 3. Mildly Thick Liquids
- 4. Moderately Thick Liquids
- 5. Extremely Thick/Pureed Liquids



PUREED FOOD

- Usually eaten with a utensil
- Cannot drink from a cup or straw
- Does not require chewing
- Smooth, no lumps
- Does not pour
- Falls off spoon in single spoonful and holds shape on plate/tray/table

EXAMPLES: BLENDED VEGETABLES, FRUITS AND MEATS, THICK CEREALS





MINCED AND MOIST FOOD

- Can eat with utensil, chopsticks or sometimes hands
- Can be shaped and scooped on plate/tray/table
- Small lumps visible
- Lumps are easy to squish with tongue
- Moist and soft
- Minimal chewing is required
- Does not require biting

EXAMPLES: FINELY MINCED MEATS, FINELY MINCED OR MASHED FRUITS, VEGETABLES AND FISH, THICK CEREALS WITH SMALL LUMPS





SOFT AND BITE-SIZED FOOD

- Can eat with utensil, chopsticks or hands
- Soft, tender and moist bite-sized pieces
- Can be cut without a knife
- Can be mashed or broken down with utensil
- Chewing is required
- Does not require biting

EXAMPLES: COOKED-TENDER MEATS, FLAKY FISH, MASHED FRUITS, STEAMED OR BOILED VEGETABLES, SOFT CHEESE AND EGGS, SOAKED BREADS THAT ARE "MOIST" TO TOUCH





REGULAR SOLID TABLE FOOD

- Normal, everyday foods of varying textures (soft, hard, crunchy, fibrous, chewy, dry, stringy, crispy, crumbly, etc.)
- Includes mixed or dual consistencies (foods + liquids → soups and stews)
- Age-appropriate
- Developmentally appropriate based on skilllevel
- Chewing and biting may be required

EXAMPLES: ALL MEATS, VEGETABLES, FRUITS, CHEESE, EGGS, BREADS





THIN LIQUID

- Fastest flowing liquid
- Flows like water
- Can drink from any nipple, cup, syringe or straw

EXAMPLES: WATER





SLIGHTLY THICK LIQUID

- Slightly slower flow than water
- Slightly thicker than water
- Can drink from any nipple, cup, syringe or straw

EXAMPLES: BREASTMILK, FORMULA





MILDLY THICK LIQUID

- Slower flowing than slightly thick liquids
- Thicker than slightly thick liquids
- Flows off of spoon quickly, but slower than thin liquids
- Can drink from spoons, most open cups and some closed cups and straws
- More effort required to drink from straw

EXAMPLES: FRUIT NECTARS





MODERATELY THICK LIQUID

- Slower flowing than mildly thick liquids
- Thicker than mildly thick liquids
- Flows off of spoon slowly in dollops
- Can drink from spoons and open cups
- Smooth texture without lumps
- No chewing or processing required

EXAMPLES: RUNNY PUREED FRUITS AND RICE CEREALS, SAUCES, GRAVIES,





EXTREMELY THICK/PUREED LIQUID

- Slowest flowing liquid
- Thickest liquid
- Usually eaten with a utensil
- Cannot drink from cup or straw
- Does not require chewing

EXAMPLES: BLENDED VEGETABLES, FRUITS AND MEATS, THICK CEREALS

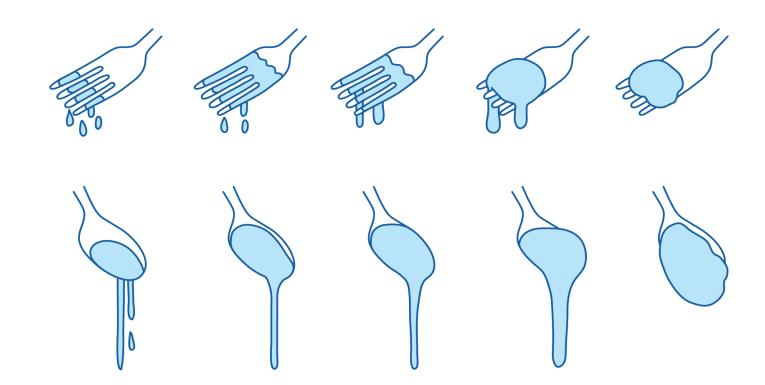






Liquid Consistencies:

From Thinnest to Thickest (Fastest to Slowest Flowing)





REASONS A CHILD MIGHT NEED A DIFFERENT TEXTURE OR CONSISTENCY:

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







SIGNS A CHILD MIGHT NEED A DIFFERENT TEXTURE OR CONSISTENCY:



- Coughing or choking on food/liquid
- Frequent congestion
- Noisy or "wet" sounding voice or breathing
- Upper respiratory infections
- Difficulty breathing while eating
- Crying or unhappy at meal times

- Oral aversions or "refusals" to eat or drink
- Unusually long meal times (more than 30-40 minutes)
- Difficulty chewing
- Avoiding certain textures or consistencies
- Vomiting
- Concerns with weight and nutrition







REMEMBER:

If a child is not exposed to a variety of textures they are at higher risk of:

- Having poor skills for chewing and swallowing
- Becoming a messy eater
- Becoming a picky eater
- Being an unsafe eater with a greater risk of choking or aspirating





TEXTURE AND CONSISTENCY CONSIDERATIONS

- Age-appropriate
- Developmentally appropriate
- Match oral-motor and swallowing skills of a child
- Promote efficiency
- Promote safety, comfort and enjoyment





TEXTURE AND CONSISTENCY TIPS

- Consider individuality of a child.
- Consider developmental skill level --- not just age.
- Good positioning is KEY.
- Start small and slow.
- Finding the best texture and consistency can take a lot of work!
- Children learn best in the context of positive relationships.





GROUP ACTIVITY: TASTE TESTING

ACTIVITY: As a group, organize foods and liquids from your environment into each texture and consistency category.

BONUS:

- Practice modifying foods and liquids.
- Using foods/liquids found in your environment, modify them to at least 3 different textures and consistencies.



FEEDING BASICS: THE SENSORY SYSTEM

WHAT IS THE SENSORY SYSTEM?

A complex group of neurons (cells in the body), cell pathways and parts of the brain that work together to allow an individual to feel different sensations from the environment.

8 SENSES MAKE UP OUR SENSORY SYSTEMS:

- Seeing (Vision)
- Hearing (Auditory)
- Smelling (Olfactory)
- Tasting (Gustatory)
- Touching or Feeling (Tactile)
- Joint and Muscle Awareness (Proprioceptive)
- Balance and Movement (Vestibular)
- Internal Body Awareness (Interoception)





SEEING (VISION)

- Information that comes to the body through the eyes (what one sees)
- Examples: Bright lights, dim lights, colors, shapes, faces, fast- or slowmoving objects, distance to objects and faces (near or far), etc.







HEARING (AUDITORY)

- Information that comes to the body through the ears (what one hears)
- Examples: Loud and soft noises, voices, music, high- and low-pitched sounds, etc.







SMELLING (OLFACTORY)

- Information that comes to the body through the nose (what one smells)
- Examples: Strong and light smells, unpleasant and pleasant smells, scents of people, places and foods/liquids, etc.

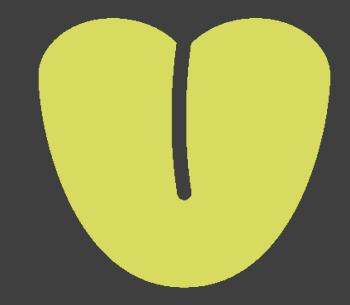






TASTING (GUSTATORY)

- Information that comes to the body through the tongue (what one tastes, eats or drinks)
- Examples: Different flavors (sweet, sour, salty, bitter, etc.)







TOUCHING (TACTILE)

- Information that comes to the body through the skin and mouth (what one feels on the body)
- Examples: Light touch, deep pressure touch, temperatures, pain, vibration, different textures (smooth, lumpy, crunchy, hard, etc.)







BALANCE AND MOVEMENT (VESTIBULAR)

- Information that comes to the body through movements (what one feels when the body moves up, down, backward, forward, sideways, rotationally, etc.)
- Examples: Rocking, swaying, swinging, turning, bouncing, spinning, standing up, sitting down, balancing, etc.







JOINTS AND MUSCLE AWARENESS (PROPRIOCEPTION)

- Information that comes to the body through sensations felt in the joints and muscles (what one feels when their body is in different positions and in contact with objects such as people, chairs or the ground)
- Examples: Sitting, walking, running, crawling, climbing, stomping feet, jumping, clapping hands, pushing and pulling heavy items, lifting and carrying items, etc.

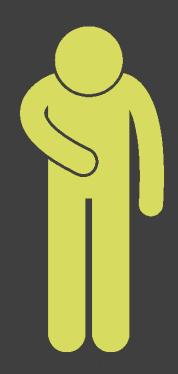






RECOGNIZING SENSATIONS INSIDE THE BODY (INTEROCEPTION)

- Information coming from within the body that relates to one's physical state or condition (what one senses from the organs)
- Examples: Hunger, thirst, fullness, heart rate, breathing rate, temperature, bowel and bladder needs, etc.





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









- Coughing, choking, gagging, spitting, vomiting with foods or liquids
- Difficulty transitioning to new food flavors and/or textures
- Flinching, grimacing or pulling away during feedings
- Avoiding certain flavors, textures or consistencies
- Oral aversions or "refusals" to eat or drink
- Unusually long meal times (30-40+ minutes per meal)

- Overstuffing mouth or giant gulps
- "Pocketing" or holding foods in mouth (and child unaware)
- Foods, liquids or saliva falling out of mouth or on face (and child unaware)
- Frequent crying, fussing or unhappiness at meal times
- Frequent falling asleep at meals
- Frequent need for or avoidance of physical contact





HYPERSENSITIVE (INCREASED SENSITIVITY):

When a child shows a strong reaction to a specific sensation or sensory information.

This reaction is <u>stronger</u> than we would expect.







COMMON EXAMPLES OF <u>HYPERSENSITIVITY</u> REACTIONS:

- Frequently startled by noises or touch
- Jerking, pulling away or withdrawing from touch
- Increased tightness in the body when fed by a caregiver
- Covering ears in a noisy room
- Closing eyes or falling asleep in loud or visually "busy" spaces
- Preferring less food on a plate or tray at a time
- Gagging on new food flavors or textures
- o Grimacing, gagging, vomiting or pulling away from certain foods
- Shaking, rocking or banging body in loud or visually "busy" spaces
- Low pain tolerance may be easily hurt or in pain





HYPOSENSITIVE (REDUCED SENSITIVITY):

When a child shows a reduced reaction to a specific sensation or sensory information.

This reaction is <u>less</u> than we would expect.







COMMON EXAMPLES OF <u>HYPOSENSITIVITY</u> REACTIONS:

- Less responsiveness to loud noises or light touch
- Excessive need for deep pressure touch
- Stuffing mouth full of food -- sometimes causing gagging, vomiting or choking
- Not noticing or sensing food, liquid or excessive saliva on face or left in mouth
- Preferring harder, crunchier textures to soft, smooth and wet textures
- Preferring flavorful foods
- High pain tolerance may hurt self and not show any sense of pain or discomfort



COMMON REASONS A CHILD MIGHT HAVE A SENSITIVE SENSORY SYSTEM:

- Medical conditions, frequent medical procedures or hospitalizations
- Born early
- Born exposed to substances (drugs and/or alcohol)
- Structural differences (cleft lip/palate)
- Neuromuscular disorders (cerebral palsy)
- Developmental disabilities (Down syndrome)
- Social-emotional or environmental factors (limited experience, stressful experiences, force feeding, no access to positive caregiving)
- Frequent congestion (limits ability to smell and taste
 → food refusals or reduced intake



SENSORY SYSTEM CONSIDERATIONS

- Listen to a child watch what they are showing you
- Prepare the environment
- Prepare the child
- Prepare the caregiver
- Promote safety, consistency, and comfort





SENSORY SYSTEM TIPS

- Be observant --- A child will show you their sensory preferences.
- Preparation is KEY.
- Preferences are different for everyone.
- Choose foods that are enjoyable.
- Start with what is familiar.
- Make changes one at a time.
- Offer lots of exploration time.
- Children learn best in the context of positive relationships.





GROUP ACTIVITY: TASTE TESTING

ACTIVITY: As a group, try different food textures and liquid consistencies. Describe each item based on your 8 senses.

- What do you notice?
- What are your own sensory sensitivities and preferences?





TYPICAL FEEDING DEVELOPMENT

FEEDING READINESS =

- Determined by SKILL LEVEL and not just AGE.
- o Does a child:
 - Sit upright with little support?
 - o Hold their neck/head upright?
 - Show interest when offered food, a cup, or a spoon?





TYPICAL FEEDING DEVELOPMENT



AGE	EATING/DRINKING EXPECTATIONS	FEEDING SKILLS
0-5 months	Bottle and/or breast	Rooting reflex, rhythmical sucking, easy breathing, no choking
5-6 months	Breastmilk or formula, cereal, pureed foods	Opens mouth for spoon, spoon easily placed in mouth, closed lips around spoon
7-9 months	Pureed foods, minced and moist foods, meltable crackers, teething biscuits	Tongue movements side to side, "munching"
8-10 months	Pureed, minced and moist, soft bite-sized foods, cup drinking	Tongue movements side to side, using fingers to feed, interested in using utensils, drinking from cups with support
10-12 months	Purred, minced and moist, soft bite-sized	Biting through foods, chewing soft foods, cup drinking and utensil (self-feeding) improves
12-18 months	Eating most solid foods	Rotary (mature) chewing, holding cup between lips, no gagging or choking,
18-24+ months	Eating most solid foods	Safety tolerating most foods, feeding self (fingers, utensils, cups) without support



GROUP ACTIVITY: FAMILY FOODS

ACTIVITY: As a group, share examples of foods specific to your environment that are appropriate for:

- Babies 0-6 months of age
- Babies 6-12 months of age
- Children 12-18 months of age
- Children 18-24+months of age





WHAT IS INTERACTION?

- Interaction = "relationships"
- The relationships children have with their caregivers, including the day-to-day moments they share during feedings, are interactions.

Positive relationships are essential for growing healthy and strong children!



FEEDING BASICS: INTERACTION (CONT.)





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







POSITIVE RELATIONSHIPS ...

- teach children about the world and themselves.
- show children they are loved.
- help them learn if the world is safe or scary.
- explain what happens when they become upset or happy.
- allow them to observe and learn how to treat others.
- shape and help their brains grow.
- o create healthier and happier human beings!







WITH LIMITED OR NO ACCESS TO POSITIVE RELATIONSHIPS CHILDREN ARE ...

- o at greater risk of chronic illnesses and death.
- o at greater risk of malnutrition and dehydration.
- at greater risk of mental health issues such as depression, anxiety, behavioral difficulties, etc.
- less likely to recover from difficult, traumatic life experiences.
- less likely to develop necessary developmental skills to become thriving, functional adults.







5 Elements Every Child Needs for Robust Development:

- 1. A healthy, safe and low-stress experience in the womb
- 2. The chance to experience love with a nurturing and safe adult
- 3. Support learning how to calm themselves when upset
- 4. Support discovering how to become calm with the help of others
- 5. Reliable, thoughtful and developmentally matched care from others







OPTIMAL CAREGIVER QUALITIES

- Present Be fully present during interactions with a child
 physically and mentally.
- Attentive Be observant of the physical and emotional needs of a child.
- Responsive Be consistent and quick to respond to a child's needs.
- Attuned Be deeply connected to a child and learn her individual wants and needs.



FEEDING BASICS: INTERACTION (CONT.)





INTERACTION TIPS

- Healthy relationships help brain development. Strong brains grow from quality time with caregivers.
- Healthy relationships heal brains.
- Be present, attentive, responsive and attuned.
- Optimal caregiving doesn't take extra time.
- Children learn best in the context of positive relationships.



GROUP ACTIVITY: INTERACTION

ACTIVITY: As a group, share different ways to support interaction across a child's everyday activities and routines.





"Let us put our minds together and see what life we can make for our children."

Sitting Bull







EXAMPLES OF COMMON CONDITIONS/DISABILITIES WITH FEEDING CHALLENGES:

- Autism spectrum disorders
- Cardiac conditions
- Cleft lip and/or palate
- Deaf or hard of hearing
- Down syndrome
- Fetal alcohol spectrum disorders
- Cerebral Palsy

EXAMPLES OF COMMON CONDITIONS/DISABILITIES WITH FEEDING CHALLENGES (CONT.)

- Gastrointestinal disorders
- Prematurity
- Sensory sensitivities
- Substance (drug) exposure
- Vision impairments



COMMON YOUNG CHILD FEEDING CHALLENGES:

- 1. The sleepy, hard to wake baby
- 2. The fussy baby who is hard to calm
- 3. The baby who tires easily
- 4. The baby who has difficulty sucking
- 5. The baby who coughs, chokes or gags
- 6. The baby who frequently spits up
- 7. Special population: The baby who has cleft lip and/or palate
- 8. Special population: The baby who is born early
- 9. Special population: The baby who is born substance exposed





COMMON OLDER CHILD FEEDING CHALLENGES:

- 1. The child who has problems with muscle tone
- 2. The child who has difficulties with structures of the mouth
- 3. The child who has a sensitive sensory system
- 4. The child who has trouble biting and/or chewing
- 5. The child who has problems swallowing





CHALLENGE #1: THE SLEEPY, HARD TO WAKE BABY

- Falls asleep during feedings
- Difficult to keep awake
- Does not alert caregivers to hunger

May include: Babies with Down syndrome, heart conditions, medically fragile babies, or babies born exposed to substance in the womb





CHALLENGE #1: THE SLEEPY, HARD TO WAKE BABY

- Feeding and Timing
- Positioning
- Equipment
- Other Ways





CHALLENGE #2: THE FUSSY BABY

- Fusses when fed and when not fed
- Appears hungry but fusses with bottle
- Very difficult to soothe
- Confusing for caregivers

May include: Babies with heart conditions, medically fragile babies, babies born early or exposed to substance in the womb, babies with vision or hearing impairments or neurodevelopmental delays





CHALLENGE #2: THE FUSSY BABY

- Feeding and Timing
- Positioning
- Equipment
- Other Ways





REMEMBER:

Watch for baby "stress cues" such as crying, back arching, a wrinkled forehead, wide open eyes, raised eyebrows, fast, loud breathing, turning his head or eyes to look away, yawning, sneezing, hiccupping, etc.

Never force a bottle into a baby's mouth when she is distressed. Calm a baby first and then offer a bottle. If bottles are forced, babies can become more upset and even refuse feedings.





CHALLENGE #3: THE BABY WHO TIRES EASILY

- Tires after brief feedings
- Falls asleep during feedings
- Difficulty finishing feedings
- Rapid breathing when feeding
- Poor endurance for other activities

May include: Babies with heart or lung conditions, Down syndrome, medically fragile babies, or babies born early or exposed to substance in the womb





CHALLENGE #3: THE BABY WHO TIRES EASILY

- Feeding and Timing
- Positioning
- Equipment
- Other Ways





CHALLENGE #4: THE BABY WHO HAS TROUBLE SUCKING

- Weak suck
- Disorganized sucking pattern
- Difficulty compressing nipples
- Messy feedings
- Rapid breathing when feeding
- Tires easily

May include: Babies with heart or lung conditions, babies with low muscle tone, medically fragile babies or those with neurodevelopmental delays, babies born early or exposed to substance in the womb





CHALLENGE #4: THE BABY WHO HAS TROUBLE SUCKING

- Feeding and Timing
- Positioning
- Equipment
- Other Ways







CHALLENGE #5: THE BABY WHO COUGHS, CHOKES OR GAGS

- Frequent coughing, choking, gagging, or spitting up with feedings
- Struggles to eat and breathe
- Gasping while feeding
- Tires easily

May include: Babies with heart conditions, Down syndrome, babies with low muscle tone or cleft lip/palate, medically fragile babies or those with neurodevelopmental delays, babies born early or exposed to substance in the womb





CHALLENGE #5: THE BABY WHO COUGHS, CHOKES OR GAGS

- Feeding and Timing
- Positioning
- Equipment
- Other Ways





CHALLENGE #6: THE BABY WHO FREQUENTLY SPITS UP

- Frequently spitting up
- Appears uncomfortable and hungry, but frustrated while feeding
- Feeding refusals
- Confusing for caregivers

May include: Babies with low muscle tone, babies born early or exposed to substance in the womb, babies with neurodevelopmental delays, babies with GERD or GER





CHALLENGE #6: THE BABY WHO FREQUENTLY SPITS UP

- Feeding and Timing
- Positioning
- Equipment
- Other Ways





REMEMBER:

Not all babies who spit up have GER or GERD.

"Happy spitters" = babies who spit up often, but it doesn't bother them or impact feedings. They do not appear in pain or upset.

"Unhappy spitters" = babies who act like they want to eat, but appear afraid or upset when offered a bottle. They most likely have GERD/GER.





CHALLENGE #7: THE BABY WITH CLEFT LIP AND/OR PALATE

- Born with birth defect that affects lip, nose and/or roof of mouth
- Difficulty forming a tight seal for sucking
- Coughing or choking with feedings
- Feeding refusals





CHALLENGE #7: THE BABY WITH CLEFT LIP AND/OR PALATE

- Feeding and Timing
- Positioning
- Equipment
- Other Ways





This image shows how to hold a baby with cleft lip or palate. The 45-degree angle helps keep liquids in a baby's mouth and stomach and reduces the chance of liquids flowing back up through the nose.







CHALLENGE #8: THE BABY WHO IS BORN EARLY (PREMATURITY)

- Obodies and systems not fully developed → feeding skills not fully developed
- Weak, disorganized sucking
- Tires easily
- Sensitive around mouth or face due to frequent medical procedures
- Fussy and irritable





CHALLENGE #8: THE BABY WHO IS BORN EARLY (PREMATURITY)

- Feeding and Timing
- Positioning
- Equipment
- Other Ways





CHALLENGE #9: THE BABY WHO IS BORN EXPOSED TO SUBSTANCES (DRUGS/ALCOHOL)

- Very sensitive systems → sensory sensitivities
- Frequent spitting up
- Discomfort during feedings
- Weak, disorganized sucking
- Tires easily
- Fussy and irritable
- Difficult to soothe and stay calm
- Difficult to stay awake





CHALLENGE #9: THE BABY WHO IS BORN EXPOSED TO SUBSTANCES (DRUGS/ALCOHOL)

- Feeding and Timing
- Positioning
- Equipment
- Other Ways





REMEMBER:

When making changes to how you are feeding a baby, start by changing one element at a time. Too many changes all at once can be stressful for a baby and it can make it hard to know what changes worked well and which did not.





CHALLENGE #10: THE CHILD WHO HAS PROBLEMS WITH MUSCLE TONE

- Floppy or rigid muscle tone
- Difficulty maintaining good (safe) positioning
- Difficulty self-feeding
- Difficulty transitioning to different textures
- Tires easily
- Hyper- or hypo-sensitivities

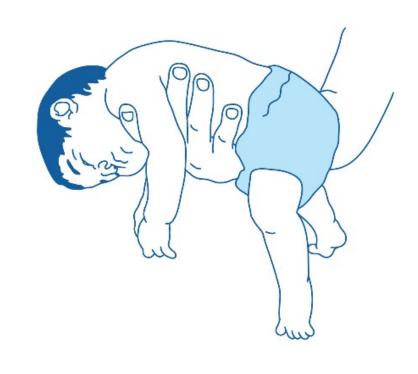
May include: Children with cerebral palsy, Down syndrome, heart conditions, medically fragile children, or children born early or exposed to substances in the womb





CHALLENGE #10: THE CHILD WHO HAS PROBLEMS WITH MUSCLE TONE

- o Hypotonia → Low Tone
 - Cerebral palsy, muscular dystrophy, Down syndrome, autism spectrum disorders
 - o "rag doll" or "floppy"
- Slow to acquire fine and gross motor skills
- Difficulty holding head upright, balancing selves, grabbing/holding onto foods and utensils, and maintaining safe positioning
- Difficult with sucking and/or chewing
- Tire easily
- Stuff large amounts of food in mouth





CHALLENGE #10: THE CHILD WHO HAS PROBLEMS WITH MUSCLE TONE

- Ohr Hypertonia → High Tone
 - Cerebral palsy, spinal cord injuries, brain injuries, substance exposure in womb
 - Rigid or clenched posture
- Slow to acquire fine and gross motor skills
- Difficulty holding head upright and forward, opening hands, straightening arms and legs, getting into and maintaining safe positioning
- Difficult with sucking and/or chewing
- Difficulty using utensils and cups
- Frequent coughing and choking





CHALLENGE #10: THE CHILD WHO HAS PROBLEMS WITH MUSCLE TONE

HOW TO SUPPORT:

- Feeding and Timing
- Positioning
- Equipment
- Other Ways







CHALLENGE #11: THE CHILD WHO HAS PROBLEMS WITH STRUCTURES OF THE MOUTH

- Problems with structures → difficulty sucking, biting, chewing, swallowing
- Difficulty transitioning to different textures
- Food refusals or avoidance
- Tires easily
- Hyper- or hypo-sensitivities

May include: Children with Down syndrome, cerebral palsy, autism spectrum disorders, neurodevelopmental delays, medical fragile children, or children born early or exposed to substances in the womb





CHALLENGE #11: THE CHILD WHO HAS PROBLEMS WITH STRUCTURES OF THE MOUTH

COMMON PROBLEMS INCLUDE:

- o Jaw thrust
- Tonic bite
- Tongue thrust
- Tongue retraction
- Lip retraction
- Cleft lip
- Poor lip closure
- Cleft palate

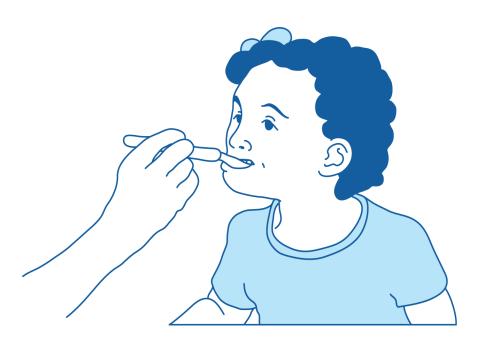




CHALLENGE #11: THE CHILD WHO HAS PROBLEMS WITH STRUCTURES OF THE MOUTH

JAW THRUST: Jaw opens through strong down, ou and forward movement.

- Difficulty removing food off utensils and positioning lips, tongue, jaw for cup drinking
- Difficulty closing mouth for swallowing
- Difficulty transitioning to more complex food textures
- Tires easily and quickly → reduced consumption

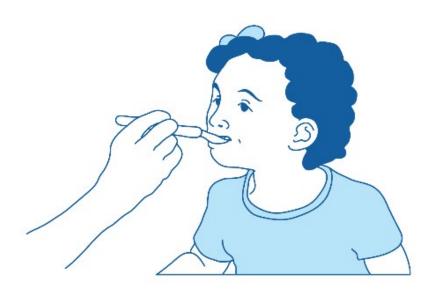




CHALLENGE #11: THE CHILD WHO HAS PROBLEMS WITH STRUCTURES OF THE MOUTH

TONIC BITE: Teeth touch object and jaw moves up into tightly clenched position.

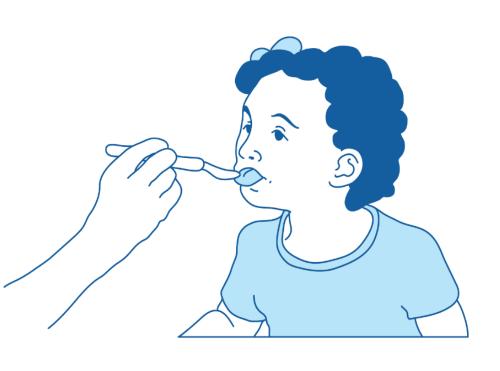
- Difficulty opening mouth to receive food and liquid
- Difficulty using spoons and cups
- Difficulty closing mouth for swallowing
- Highly sensitive to input
- Difficulty getting enough to eat as behavior is confusing to caregivers





CHALLENGE #11: THE CHILD WHO HAS PROBLEMS WITH STRUCTURES OF THE MOUTH

- TONGUE THRUST: Strong protrusion (forward pushing) of tongue out of mouth.
- TONGUE RETRACTION: Pulling of tongue far back in the mouth toward throat.
 - Difficulty opening mouth for nipple, cup, spoon
 - Difficulty swallowing
 - Difficulty transitioning to more complex food textures
 - More sensitive to sensory input





CHALLENGE #11: THE CHILD WHO HAS PROBLEMS WITH STRUCTURES OF THE MOUTH

- LIP RETRACTION: Lips pulled back tightly.
- POOR LIP CLOSURE: Inability to close lips wh desired.
 - Difficulty sucking and swallowing
 - Difficulty removing foods from cups and utensils
 - Difficulty munching and chewing
 - Difficulty transitioning to more complex food textures
 - More sensitive to sensory input





CHALLENGE #11: THE CHILD WHO HAS PROBLEMS WITH STRUCTURES OF THE MOUTH

- CLEFT PALATE: Hole in roof of mouth allowing air, food and liquid to escape into nose or lungs.
 - Difficulty sucking and swallowing
 - Difficulty transitioning to more complex food textures
 - Vomiting and spitting up
 - Messing feedings
 - Food and liquid refusals or avoidance





CHALLENGE #11: THE CHILD WHO HAS PROBLEMS WITH STRUCTURES OF THE MOUTH

HOW TO SUPPORT:

- Feeding and Timing
- Positioning
- Equipment
- Other Ways







CHALLENGE #12: THE CHILD WHO HAS A SENSITIVE SENSORY SYSTEM

- Hypo- or hyper-reactive system
- Very sensitive to new flavors, textures, and even how a food may look or feel
- Difficulty transitioning to new textures
- Difficulty with self-feeding

May include: Children with Down syndrome, cerebral palsy, autism spectrum disorders, fetal alcohol spectrum disorders, children with visual or hearing impairments, medically fragile children, or children born early or exposed to substances in the womb





CHALLENGE #12: THE CHILD WHO HAS A SENSITIVE SENSORY SYSTEM

HOW TO SUPPORT:

- Feeding and Timing
- Positioning
- Equipment
- Other Ways







CHALLENGE #13: THE CHILD WHO HAS PROBLEMS BITING OR CHEWING

- Tires easily with eating, especially harder textured foods
- Avoidance of certain textures
- Difficulty transitioning to different textures

May include: Children with Down syndrome, cerebral palsy, heart conditions, dental problems, children with visual or hearing impairments, medical fragile children, or children born early or exposed to substances in the womb





CHALLENGE #13: THE CHILD WHO HAS PROBLEMS BITING OR CHEWING

HOW TO SUPPORT:

- Feeding and Timing
- Positioning
- Equipment
- Other Ways





CHALLENGE #14: THE CHILD WHO HAS PROBLEMS SWALLOWING (OLDER CHILD)

- Frequently coughing or choking with feedings
- Struggles to eat and breathe
- Gasping during feedings
- Poor weight gain/growth

May include: Children with heart conditions, Down syndrome, muscle tone issues or cleft lip/palate, or children born early, with neurodevelopmental delays, or exposed to substances in the womb





CHALLENGE #14: THE CHILD WHO HAS PROBLEMS SWALLOWING (OLDER CHILD)

HOW TO SUPPORT:

- Feeding and Timing
- Positioning
- Equipment
- Other Ways





REMEMBER:

Children who cough, choke and/or gag with feedings may be aspirating — liquid goes into lungs instead of into their stomachs. This can make them very sick with upper respiratory infections and/or pneumonia, which can lead to poor weight gain and even death.





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

-Frederick Douglas







SPECIFIC STRATEGIES:

- Jaw and Chin Support for Sucking (Bottle Feeding)
- L-Shape Technique
- Chin Cupping Technique
- Tonic Bite Spoon/Cup Removal Technique
- Lip and Cheek Support for Sucking (Bottle Feeding)
- Facial Molding Techniques (aka: Pat-Pat Facial Massage)
- Lip and Chin Closure Technique
- Lip Stimulation/Stroking Technique
- Press-Down Technique for Bottle Feeding
- Press-Down Technique for Spoon Feeding & Cup Drinking
- Pacing Strategies





STRATEGY: JAW AND CHIN SUPPORT FOR SUCKING (BOTTLE FEEDING)

BEST FOR: Young babies 0-6 months of age.

WHEN TO USE: The baby who...

- Tires easily
- Has trouble sucking
- Has a weak or disorganized suck
- Is born early or exposed to substances

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.









REMEMBER:

If providing support to a baby's cheeks and jaw results in coughing or choking, this type of support should be immediately stopped.







STRATEGY: L-SHAPE TECHNIQUE

- o BEST FOR: Slightly older children 6+ months
- WHEN TO USE: The child who...
 - Has jaw thrust, tonic bite, poor lip closure, difficulty controlling opening/closing of jaw

O HOW TO USE:

- Caregiver positioned in front of child
- o Place thumb on child's chin or below lower lip
- Place index finger at side of face in front of/near ear and upper jaw
- Place middle finger under jaw behind chin
- Provide assisted control of jaw by gently guiding it up and down while a child eats and drinks
- Gradually reduce amount of physical support and control as child shows greater jaw control





STRATEGY: L-SHAPE TECHNIQUE







STRATEGY: CHIN CUPPING TECHNIQUE

- o BEST FOR: Slightly older children 6+ months
- WHEN TO USE: The child who...
 - Has jaw thrust, tonic bite, poor lip closure, difficulty controlling opening/closing of jaw

O HOW TO USE:

- Caregiver positioned behind or to side of child
- Place thumb at side of face in front of/near ear and upper jaw
- Place index finger on child's chin or below lower lip
- Place middle finger under jaw behind chin
- Provide assisted control of jaw by gently guiding it up and down while a child eats and drinks
- Gradually reduce amount of physical support and control as child shows greater jaw control





STRATEGY: CHIN CUPPING TECHNIQUE







REMEMBER:

Good positioning and a quiet calm environment can help reduce high muscle tone or physical response, including the strength and frequency of jaw thrust.







STRATEGY: TONIC BITE/SPOON REMOVAL TECHNIQUE

- BEST FOR: Slightly older children 6+ months
- WHEN TO USE: The child who...
 - Has hypertonicity, hyperreactivity, difficulty controlling opening/closing of jaw or tendency to clench jaw

o HOW TO USE:

- Reduce external stimulation during feeding
- Help child become calmer and less tense
- When child is biting down, relax and apply light pressure on bottom of his chin
- Wait to feel jaw drop and then remove spoon/cup from mouth
- If this does not help, gently guide child's head forward (chin to chest) to naturally open mouth and release utensil/cup







REMEMBER:

When a child has a tonic bite, <u>do not</u> pull on the bottle, cup or spoon to release. The child's reflex will only cause them to bite down harder.

Use the Tonic Bite Technique.





STRATEGY: LIP AND CHEEK SUPPORT FOR SUCKING (BOTTLE FEEDING)

BEST FOR: Young babies 0-6 months of age.

WHEN TO USE: The baby who...

- Tires easily
- Has trouble sucking
- Has a weak or disorganized suck
- Is born early or exposed to substance

HOW TO USE:

- Hold baby in semi-reclined position (45-60 degrees) OR
- Position baby in an elevated position on a cushion
- Place thumb and one finger on each cheek
- Give gentle pressure toward baby's mouth to help move her lips around the nipple

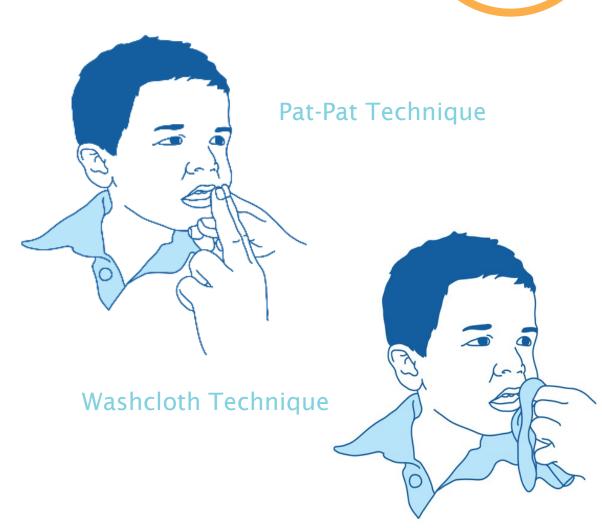






STRATEGY: FACIAL MOLDING TECHNIQUES

- BEST FOR: Slightly older children 6+ months
- WHEN TO USE: The child who...
 - Has poor lip closure, lip retraction, low or high muscle tone in the face







STRATEGY: FACIAL MOLDING TECHNIQUES

HOW TO USE:

- Caregiver positioned in front or beside child
- Place 2-4 fingers high upon child's cheeks, patting 3 times in a downward motion moving toward lips
- Vibrate fingers while pulling downward slowly, deeply, or rapidly --- Repeat 3 times
- Place 2-4 fingers above upper lip and gently apply pressure while massaging in a downward motion 1 time
- Place 2-4 fingers below lower lip and gently apply pressure while massaging in an upward motion 1 time
- Place 2-4 fingers on child's lips and gently apply pressure for final time
- Repeat as necessary up to 8-10 times

*Washcloth technique: Wipe each part of face in a downward motion (from the outer cheeks toward the nose and mouth) and upward motion from chin to lips. Complete wiping of both cheeks first before moving on to wiping chin and lips.





STRATEGY: LIP AND CHIN CLOSURE TECHNIQUE

BEST FOR: Young babies 0-6 months of age.

WHEN TO USE: The baby who...

- Has poor lip closure
- Has trouble sucking
- Has a weak or disorganized suck
- Is born early or exposed to substance

HOW TO USE:

- Hold baby in semi-reclined position (45-60 degrees) OR
- Position baby in an elevated well-supported seated position
- Place thumb slightly under bottom lip and index finger on chin
- Support baby's bottom lip and bony part of chin by giving gentle pressure toward mouth to assist lip closure around nipple









STRATEGY: LIP STIMULATION/STROKING TECHNIQUE

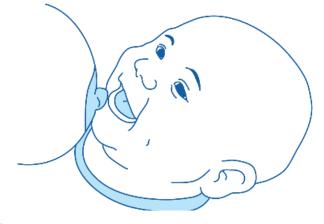
BEST FOR: Young babies 0-6 months of age (Breast of Bottle Feeding).

WHEN TO USE: The baby who...

- Needs extra encouragement to suck
- Has trouble sucking
- Has a weak or disorganized suck
- Is born early or exposed to substances

HOW TO USE:

- Hold baby in semi-upright position (45-60 degrees) OR
- Using breast or bottle nipple, gently stroke baby's bottom lip from side to side
- Pause after several strokes to allow baby a chance to receive the nipple









STRATEGY: LIP STIMULATION/STROKING TECHNIQUE





STRATEGY: PRESS-DOWN TECHNIQUE (BOTTLE FEEDING)

BEST FOR: Young babies 0-6 months of age.

WHEN TO USE: The baby who...

- Needs extra encouragement to suck
- Tires easily
- Has trouble sucking
- Has a weak or disorganized suck
- o Is born early or exposed to substances

HOW TO USE:

- Hold baby in semi-upright position (45-60 degrees) OR
- Position baby in an elevated well-supported position on a cushion
- Using breast or bottle nipple, give gentle pressure downward on the middle of baby's tongue for 1-3 seconds
- Pause to allow baby the chance to move her tongue around the nipple.
- Repeat as necessary.







STRATEGY: PRESS-DOWN TECHNIQUE (SPOON AND BOTTLE FEEDING)

BEST FOR: Older children 6+ months of age.

WHEN TO USE: The child who...

Has tongue thrust

HOW TO USE:

- Caregiver is positioned in front of child at eye level not above them
- Spoon Feeding: Place a level spoon on center of child's tongue and apply firm downward pressure while offering firm pressure under chin using a finger. Remove spoon and repeat as necessary.
- Cup Drinking: Place a cup on lower lip below child's tongue while offering firm pressure under chin (to tongue).









REMEMBER:

Proper positioning will reduce tongue thrust.
Always first ensure that a child is in a well-supported position for feedings and that his head is in a slightly forward, neutral position.





STRATEGY: PRESS-DOWN TECHNIQUE (SPOON AND BOTTLE FEEDING)





STRATEGY: PACING TECHNIQUE (BOTTLE FEEDING)

BEST FOR: Young babies 0-6 months of age.

WHEN TO USE: The baby who...

- Tires easily
- Has trouble sucking
- Has a weak or disorganized suck
- Coughs, chokes or gags
- Frequently spits up
- Is born early or exposed to substances







STRATEGY: PACING TECHNIQUE (BOTTLE FEEDING)

○ HOW TO USE:

- Hold baby in semi-upright position (45-60-degrees)
 OR
- Position baby in an elevated position on a cushion
- Hold bottle horizontally to reduce flow of liquid
- Allow baby to feed from bottle for ~20-30 seconds (or 3-5 swallows) and then gently tip bottle to 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 again, return bottle to horizontal position to resume feeding
- Repeat process until baby is able to pace feedings on his own







REMEMBER:

When feeding challenges arise, always consider positioning, rate and volume. Change one of these elements at a time and determine if the problem is solved or needs additional support.





"What a child doesn't receive, he can seldom later give."

P.D. James





CALMING ACTIVITIES

- Use with the child who has a hypersensitive sensory system
- Use before feedings, especially if a child becomes overstimulated

WAKING/ALERTING ACTIVITIES

- Use with the child who has a hyposensitive sensory system
- Use before feedings, especially if a child tends to be understimulated



CALMING ACTIVITIES

- Use rhythmic, repetitive touch, movements and sounds
- Offer age-appropriate objects to suck on, mouth or chew before and after meals
- Provide dim lighting or a darker room with minimal visual distractions before, during or after feedings
- Feed in a quiet space with minimal sounds and voices
- Interact using slower rates of movement, softer voices or sounds and reduced animation
- Use consistent activities and routines so a child knows what to expect, which reduces stress and creates calmness
- Swaddle wear hold or carry a child



WAKING/ALERTING ACTIVITIES

- Use gentle activities before or during feedings or that wake a child if she has fallen asleep
- Offer age-appropriate objects or activities to wake up the face and mouth before eating
- Provide brighter lighting or a room with more light and/or sound before, during or after feedings for a sleepy child
- Feed in a space with typical noise and sound levels
- Interact using faster rates of movement, louder voices or sounds and increased animation
- Use consistent activities and routines so a child knows what to expect, which reduces stress and creates a readiness for participating in feeding



ORAL-MOTOR PREPARATION AND PLAY ACTIVITIES

- Prepares children for mealtimes
- Aids in development of skills need for eating, chewing, and swallowing
- Offers soothing and comforting for many children
- Increasing sensations for hyposensitive children
- Reduces sensations for hyersensitive children
- Fun exploration and play!



FINGER FEEDING TIPS

- Offer lots of opportunities to practice.
- Find a good position.
- Offer foods that suit the child and work well for finger feeding.
- Start small.
- Expect a mess.
- Consistency is key.
- Eat together!











CUP DRINKING TIPS

- Offer lots of opportunities to practice.
- Start small, slow and thick.
- Offer help in the beginning.
- Offer a cup that suits the child.
- Consistency is key.
- Drink from cups together!







SPOON FEEDING TIPS

- Find a good position.
- Offer lots of opportunities for practice.
- Offer foods that suit the child and work well for spoon feeding.
- Start small.
- Make it stick.
- Consistency is key.
- Expect a mess.
- Eat together!





SELF-FEEDING TIPS

- Find a good position.
- Offer lots of opportunities for practice.
- Offer foods that suit the child and work well for spoon feeding.
- Offer utensils, plates and bowls, and mats that suit a child well.
- Consistency is key.
- Expect a mess.
- Eat together!



