Pediatric Feeding: What's the Big Idea?

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Related education and training

- 12 years experience as an Occupational Therapist
- Over 8 years experience specialized in NICU
- Advanced continued education coursework in pediatric feeding

Feeding throughout childhood

- From birth to school age, feedings can be difficult
- Unfortunately for some infants and children feeding is painful, not a pleasurable experience. For infants and children stress is perceived as pain.
- As "well –adjusted" adults, how did we get to where we are?
- OBJECTIVES
  - Dynamics of feeding
  - Infant feeding
  - Importance of the team
  - Progression and success at the table

“ “You know, the act of feeding someone is the ultimate act of care and affection...sharing yourself with someone else through food."

” — Sylvain Reynard, *Gabriel's Inferno*

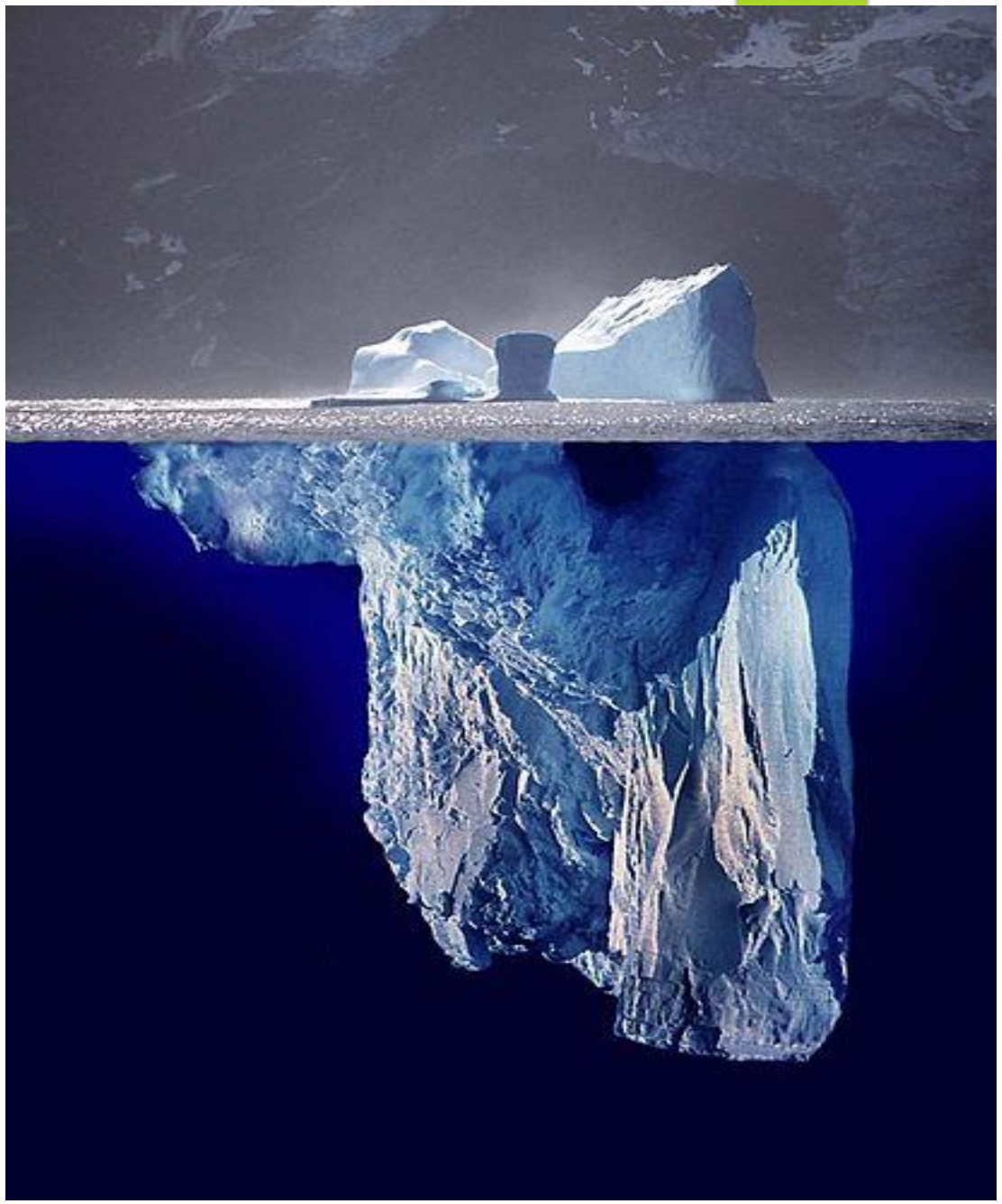
“Feeding my children is not like feeding myself: it matters more.”

- Jonathan Safran Foer

Feeding is like an Iceberg

The act of feeding

All organs
(cardiac, respiratory and digestive)
All muscles
All senses
Learning
(developmental age? style/ capacity)
Development
Nutritional status
Environment
(note: environment is not the focus)

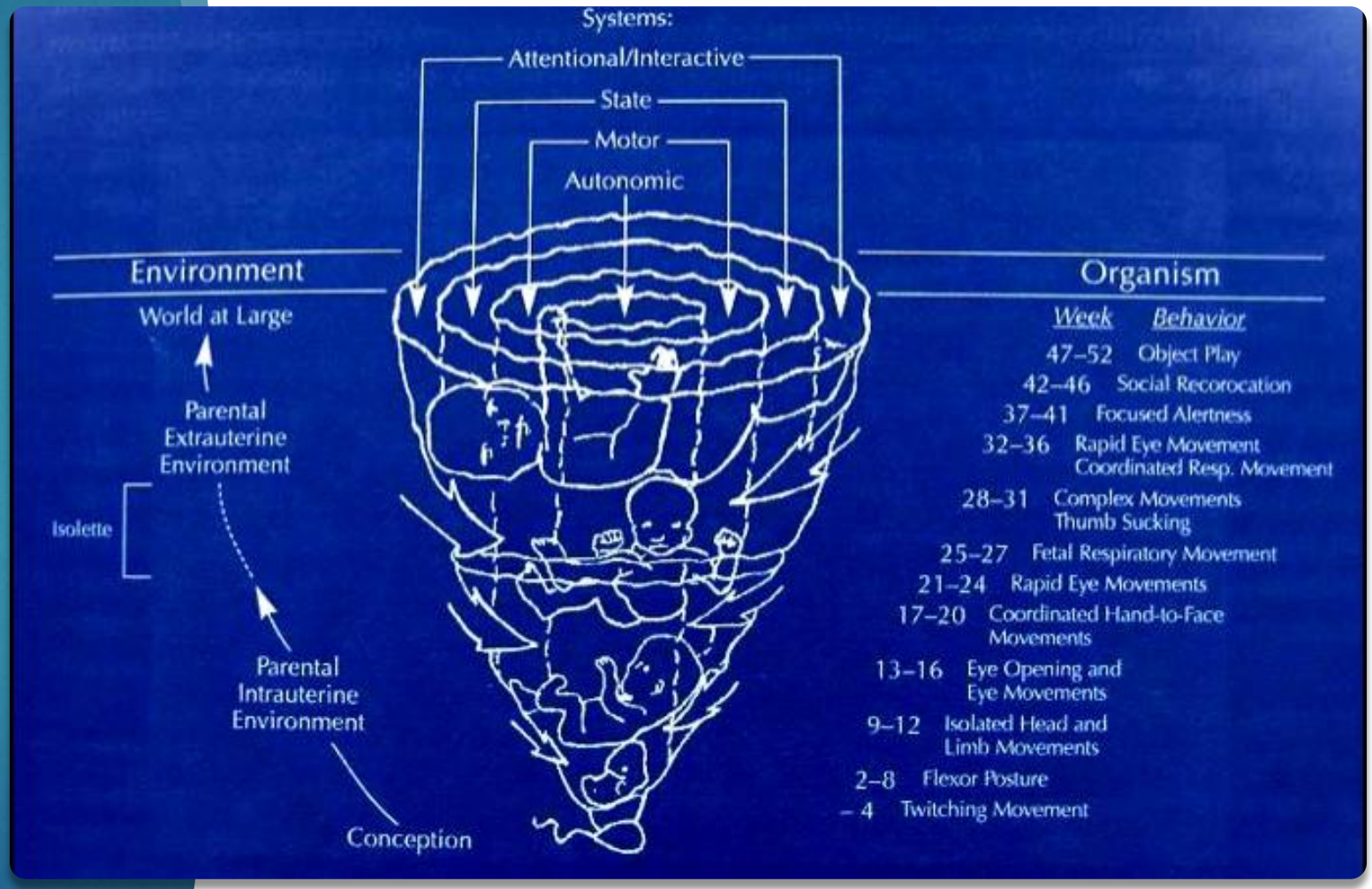


Dynamic qualities to feeding

The Synactive Theory of Development

The body's multiple systems are interrelated when it comes to feeding time. They must come together skillfully to support the whole function.

- Autonomic
- Motor
- State
- Attentional



Synactive Theory of Development – Heidelise Als, PHD

Autonomic System

- Autonomic
  - The respiratory system takes top billing. This is your body's #1 priority.
  - Gastrointestinal system function is important, adequate digestion, adequate motility, regular BMs, reflux, feeding tolerance, food allergies or sensitivities, hunger and satiation etc.
  - Cardiac function affects energy and endurance.
  - Sensory processing

Motor System

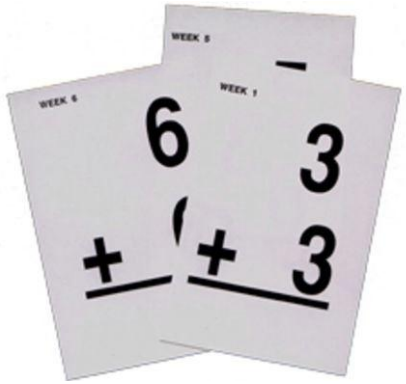
- Motor
  - Ability to achieve and sustain optimal position. Development of smooth purposeful movement
  - Limit startles, extension, hypotonia or hypertonia
  - Posture is the body's #2 priority, it supports the infant's other systems (respiratory, digestion, awake states)

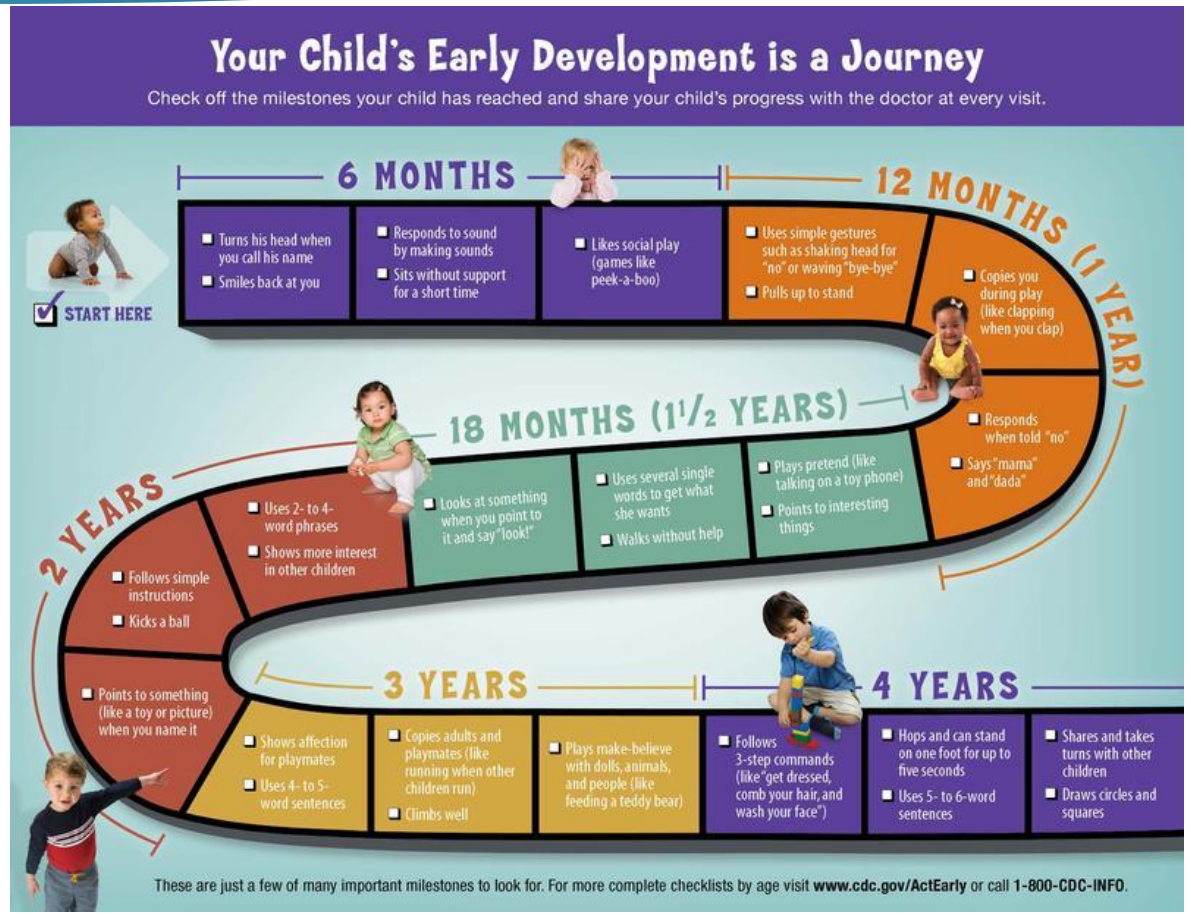
State and Attentional Systems

- State – being awake during feeding, achieving healing sleep for growth and development.
- Attentional – able to integrate environment and social stimulation. This is a skill and all the other systems have to be regulated to achieve success.

What is it about feeding?

- Let's start at the beginning, like all developmental skills they are based on building blocks.
- From birth oral feeding is a **learned** dynamic skill based on reflexes.





Reflexes

- REFLEXES are present to promote survival
  - Rooting – reflexive, does not fully signify hunger
  - Sucking – non –nutritive, reflexive, does not necessarily signify hunger, can elicit based on touch– is a skill that is practiced in utero after 11 weeks gestation www.youtube.com/watch?v=IhOwt2BdLbs
  - Swallowing begins at 12 weeks gestation.
- Suck – swallow – breath organization is the highest achievement of bottle or breast feeding skill.

Photo: aboutyournewborn.wordpress.com

Supporting bottle / breast feeding

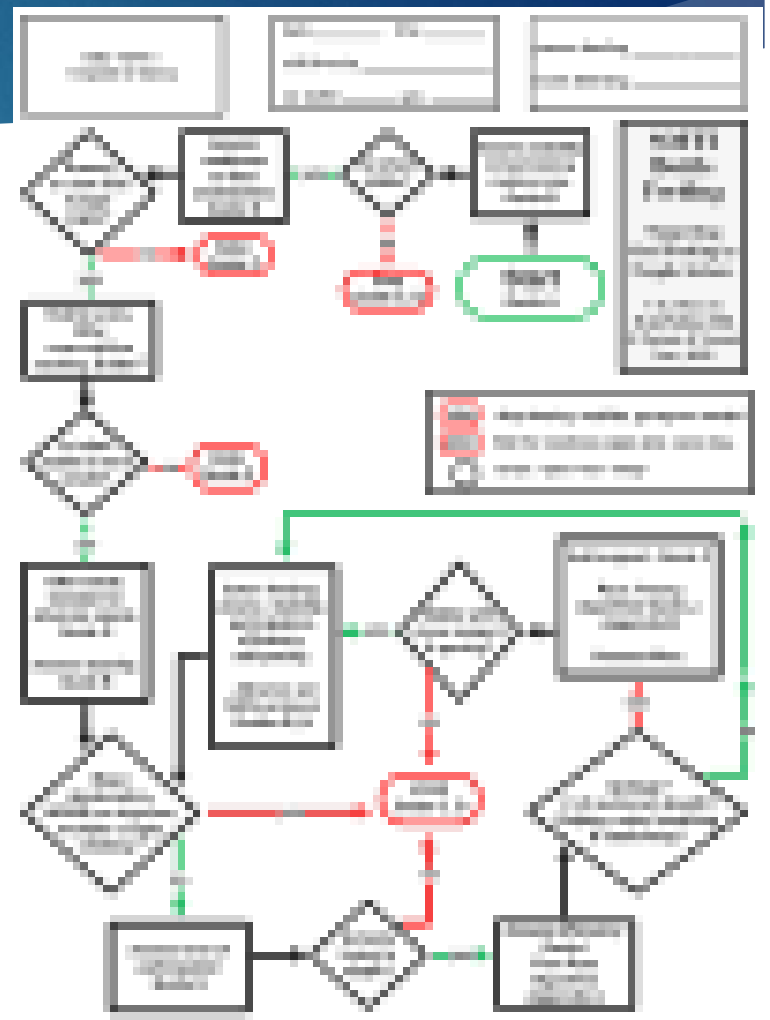
- Flow and pacing
  - "Less is more" - helps with learning
  - Slow flow helps infant learn coordination (running hurdles)
  - Regulation of flow
- Infant cues
  - Feedings provided on infant cues of readiness
  - Getting to Know Your Baby – handout, infant driven feeding research and guidelines
  - Infant stress dictates interventions required
- Positioning
  - Side tilt, swaddled
  - Good weight bearing and solid base of support

These are the building blocks of feeding

FUTURE FEEDING BEHAVIORS BUILD ON THESE FIRST EXPERIENCES.

Decision making with infant feeding/ importance of the team

- Because of the complex integration of systems required for successful feeding a team approach is optimal.
- Feeding related issues are very difficult to assess and treat due to multifaceted nature of the skill.
  - For example some professionals have created complex algorithms and guidelines to support oral feeding clinical decision making. (NANT, Erin S Ross)
- Each team member has a vital role to play. Success does not rely on one person / one issue.
- Assess and address all of the factors involved in feeding difficulties, the whole child.



What is a Multidisciplinary Feeding Team

- Team members and their roles:
  - Parent/ Family
  - Physician (Pediatrician / GI specialist)
  - Dietician
  - Nursing
  - Speech Language Pathology
  - Psychology
  - Occupational Therapy

Occupational Therapist Role

- Evaluation and Treatment with specialty focus on:
  - Assess postural supports
  - Assess the sensory needs of each child
    - Tactile, proprioceptive, kinesthetic, taste, smell, visual, sound, balance
- The majority of "problem" behaviors which occur during feeding, regardless of a child's age, are driven by their sensory systems. – THINK SENSORY FIRST!
- Systematic desensitization. Teach a child relaxation, through play, so they will learn to cope and overcome the fear in each step of the hierarchy.
- Sensorimotor, oral motor, neurologic, gross & fine motor assessments and consult with teammates.

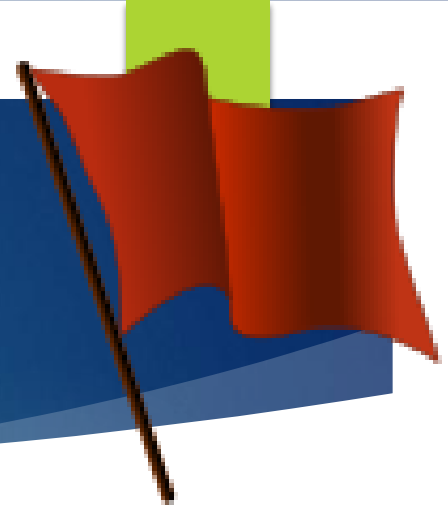
Short Term Goals of Feeding Therapy

- Individual skill development
- Movement up the "steps to eating hierarchy"
- Experience with increased variety of foods
  - Range of foods drives volume

Long Term Goals of feeding therapy

- To learn to have positive experience with food
- To learn mealtime routine and cues to eating
- To decrease resistance to touching, tasting and swallowing food
- To increase range of foods child with try
- To increase volume of food ingested

Identify Red Flags that would indicate need for feeding therapy:



- Ongoing poor weight gain, weight loss
- Ongoing choking, gagging, coughing during meals
- Ongoing problems with vomiting
- History of eating and breathing problems with ongoing respiratory issues
- Inability to accept any table food solids by 12 months
- Has not weaned off most baby foods / purees by 16 months
- Aversion or avoidance of all foods in specific texture or food group
- Food range of less than 20 foods
- An infant who cries or arches at most meals
- Family fighting about food/ feeding
- Parent repeatedly reports the child is difficult for everyone to feed
- Parent history of an eating disorder & child with poor weight gain.

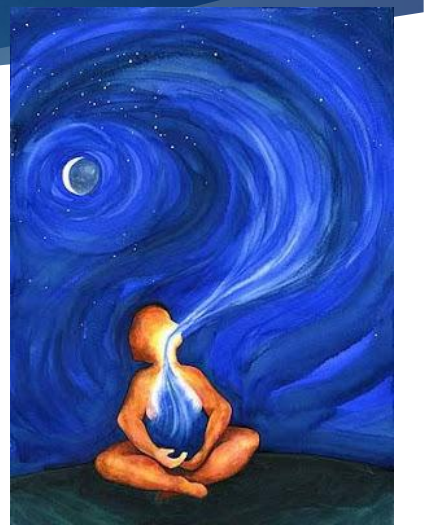
Feeding progression

- Basic tenets of successful feeding therapy
  - Feedings are pleasant – fun, learning, exploration, social
  - Internally driven by the child
  - Not forced or coerced
  - Treated on a developmental progression- the "normal development" of feeding gives us the best blueprint for feeding treatment. Start where they are.
  - Systematic desensitization- where the child is in charge of incoming stimulation
  - Feeding hierarchies play and important role in feeding treatment. This helps the child's sensory system shift slowly into accepting new foods.

“ “The proverb warns that, ‘You should not bite the hand that feeds you.’ But maybe you should, if it prevents you from feeding yourself.” ”

- THOMAS SZASZ

Ten Myths of Mealtime

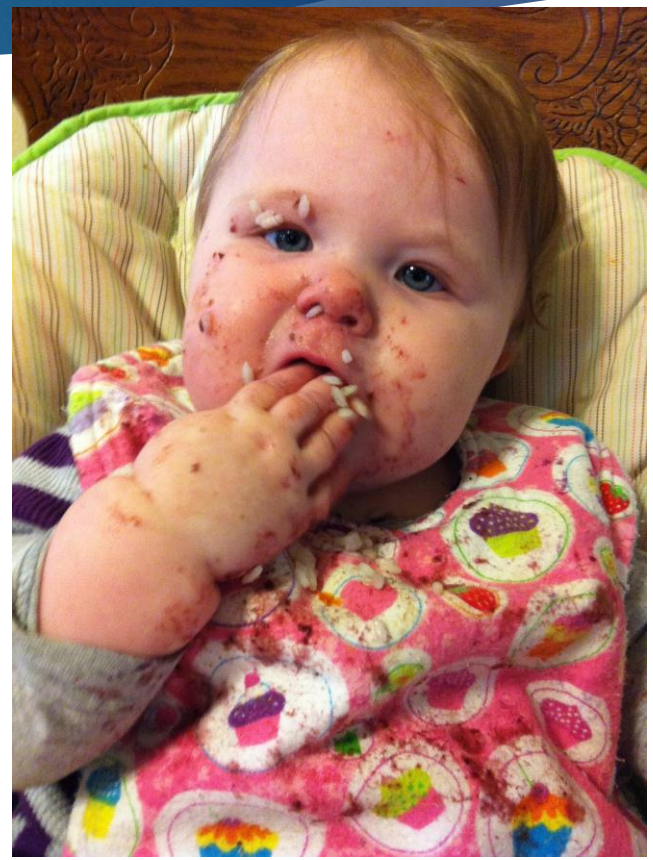


- Myth #1- eating is the body's #1 priority
  - Breathing is #1
  - Postural stability is #2
  - Eating is #3

- Myth #2 – eating is instinctive
  - Instinctive appetite drive only present for the first 4-6 weeks, reflexive from 1-6 months. Infant's spend this time learning the feeding behavior/ skill.

Ten Myths of Mealtime continued…

- Myth #3 – eating is easy
  - Eating is the most difficult sensory task that children do. (K.A. Toomey 2012)
  - Feeding requires all of our sensory capabilities. Requires stabilization of the subsystems.
- Myth #4 – eating is a two step process: 1. you sit down, 2. you eat.
  - A basic hierarchy to consuming food :



Ten Myths of Mealtime continued…

- Myth #5 – it is not ok to play with your food.
  - Remember children learn through playing
    - Feedings are pleasant – fun, learning, exploration
    - Internally driven by the child
    - Not forced or coerced
  - Manners come after learning how to eat, skills for eating need to be in place first.
  - Goal #1 – nutritional support of continued intake of preferred foods
  - Goal #2 – exposure to non- preferred foods (what others are eating)
  - Goal #3 – learning a mealtime structure and routine

Ten Myths of Mealtime continued…

- Myth #6 – if a child is hungry enough, he will eat. They will not starve themselves.
  - Hunger and satiation study (Kasese – Hara, et al. 2002)these sensations may be different in children with feeding issues. Children offered a drink with varying calories then a meal. Typical children adjusted their intake, those with "feeding issues" did not.
- Myth #7 – children only need to eat 3 x a day.
  - Best to have protein, starch and fruit or veggie 5-6 times a day
  - On average 12-24 month child has 7 meals per day.

Ten Myths of Mealtime continued…

- Myth #8 – A child who won't eat has either a behavioral or organic problem.

  Not always a behavioral problem or black and white answer.

  - Pain
  - Malaise / discomfort
  - Immature motor, oral-motor and/ or swallow skills
  - Sensory processing problems
  - Learning / behavioral
  - Nutritional

Ten Myths of Mealtime continued…

- Myth #9 – certain foods are eaten only at specified times of the day and only certain foods are "healthy for you".
  - Food restriction on desired food backfires (places too much value on that food)
  - Higher level of parental pressure are associated with lower levels of child intake and weight; and higher ratings of child "pickiness"
- Myth #10 – Mealtimes are a proper social occasion. Children are to "mind their manners" at all meals
  - Teach them about a therapy meal versus social meal.

General Treatment Strategies

Model the behavior

Family meals – at least one grown up at the table

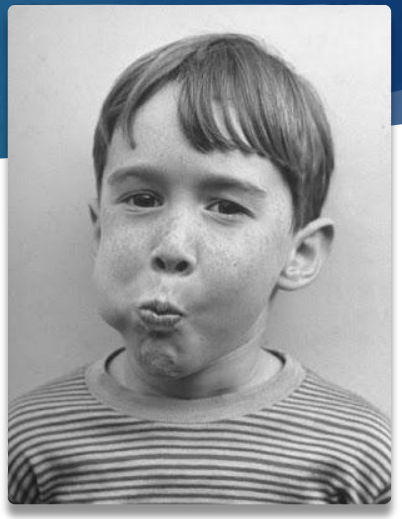
Model good feeding behaviors with descriptive language

Meals are a class, be a teacher, food is the subject, the child is the student. Teach them something about the food (the smell, texture, size, shape, etc).

Focus on Food

The child is NOT the focus of the meal, the food is

Discuss the sensory properties of the food



Actions speak louder than words

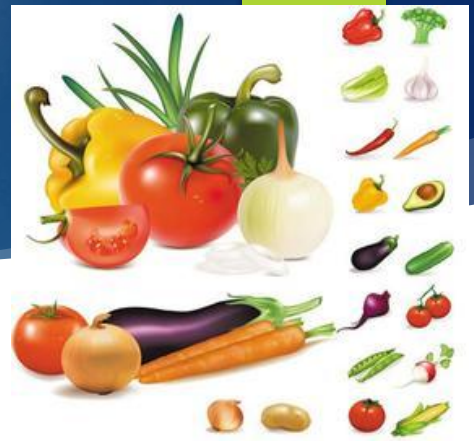
Over-exaggerate the correct motor movements

Imitate what they are doing for reinforcement

General Treatment Strategies continued…

- Make the food fun
- The child should be involved in all aspects of the meal and preparation as is developmentally appropriate
- Child needs to stay at the table (teach them to move the food away instead of leaving the table, this gives them some control)

Feeding Time Tips



- Increase a wide range of foods - Range drives volume
- Trying new foods – it is the body's natural reaction to reject new foods.
  - Studies show that it takes 10 x for children under 7 to try a new food before their body can accept the new experience.
- Do not punish the child; Adrenalin affects on feeding.
  - Fight or flight kicks in when yelled at during meals
  - Causes appetite suppression
  - Want to limit stress at mealtimes & during treatment

Limit distractions

- Help child to focus on feeding
  - If not focused on feeding they make neurologic connections with the distraction versus the act of eating
  - The child shifts into reflexive eating mode
  - The child does not lay down pathways for eating, so they do not know what to do when the distraction is not present (haven't learned anything)

What are we looking for

- Self-driven
- engaged child
- Happy experience

https://www.youtube.com/watch?v=JJlxUuOrKWY

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The Popsicle Group https://www.feedingmatters.org/about-us