

**Educational &  
Developmental  
Intervention  
Services (EDIS)  
Personnel  
Development**



**KIT**

**Keeping In Touch**

**MARCH 2016**



**Resource Article**

**Inside this edition  
“Supporting Families of  
Young Children with  
Feeding Challenges.”**

<b>Resource Article</b>	<b>1</b>
<b>What do the data say?</b>	<b>3</b>
<b>Consultation Corner</b>	<b>4</b>
<b>On the WWW Continuing Education</b>	<b>7</b>
<b>Consultation Corner Handout</b>	<b>8</b>

Feeding an infant or young child is a fundamental routine but it is also very complex, even more so when feeding challenges prevent this routine from being successful. Feeding challenges can place the child at risk for meeting necessary nutrition requirements, can compromise attachment and bonding, and may result in developmental delays. Child feeding issues also have an impact on parent’s feelings of competence and confidence in meeting the needs of their child. Bruns and Thompson (2010) describe a helpful approach to successful feeding in their article, *Feeding Challenges in Young Children Toward a Best Practices Model*.

Feeding challenges in young children can be relatively straightforward or multi-faceted, and they arise for a number of different reasons. Consider the following examples: Children born prematurely may have been intubated and tube fed, thus limiting their oral motor experience to process liquids and (later) solids; children with cerebral palsy may present with high muscle tone and hyperactive gag reflex, which may affect both feeding and later self-feeding; children with

anatomical malformations such as those with cleft lip/palate may not have the necessary oral motor functioning for successful feeding; children with genetic conditions, such as Down syndrome, may have tongue thrust and low muscle tone, making feeding difficult; and children with Autism Spectrum Disorders may demonstrate extreme food preferences and food refusals.

Burns and Thompson propose a team approach to successful feeding intervention. While other models of the team approach (e.g., multidisciplinary and interdisciplinary) exist, the authors suggest the transdisciplinary team is best suited for working collaboratively with families and their young children. With a primary provider, other disciplines can be included to round out the team, which of course, is centered around the child and family. The primary provider serves as the family’s central person for coordinating intervention and consultations with the other team members. This person may have

## Resource Article (continued)

the most knowledge about a particular feeding issue (e.g., oral motor skills) or they may be the person with whom the family feels the most comfortable.

Each team member should have a basic knowledge about feeding and issues around feeding. When meeting with the family, team members should define their area of competence and clarify how they may contribute to the intervention. Generally speaking, physical therapists have often provided assistance with positioning, speech-language pathologists with oral motor issues, educators with behavioral components, and occupational therapists with sensory processing issues. Yet, depending upon the providers' skill sets and the family's priorities the constellation of the feeding team will vary.

Interventions planned should be individualized, developmentally appropriate, and accessible to any family member/care provider who feeds the child. Interventions should be doable in whatever setting the child normally participates in feeding (e.g., home and/or child care). The intervention process begins with information gathering. Important to include would be the child's medical, social, developmental history, dietary restrictions, what the family has tried in the past (and how it went), a thorough understanding of the parents' concerns, and direct observation of the child during a normal feeding routine. A food diary is often helpful (to include feeding frequency and duration, types of foods, and any equipment used). Referrals for and/or reviewing of test imaging, such as a modified barium swallow report, may also be necessary. The authors note, much of this information can be attained through the use of the Routines-Based Interview, because it "...examines the interrelated areas of child engagement, opportunities for independence, and social relationships within a developmental context" (p. 97).

Cultural considerations, family values and family preferences are bedrock to the team process. Team discussions about how best to observe, gather and

provide information, and demonstrate feeding techniques will be crucial. Understanding a family's perceptions and expectations regarding child feeding will be helpful, but also important are the perceptions and expectations that the provider brings to the table. Any proposed modifications to the feeding intervention must be discussed with the family and shared with the team. Sometimes with even the best collaboration, the family may have ideas that are at odds with those of the team. The authors point out that, "...a tenet of family-centered practices is working closely with families to meet their needs, all efforts must be made to reconcile conflicting preferences to meet the best interests of the child and family" (p. 98).

Feeding intervention should promote the child-parent relationship. Having meals together can be a social time and, to the extent possible, enjoyment of this routine by both parent and child would be ideal. Intervention needs to foster the parents' understanding of their child's feeding strengths and needs and include helping them learn about and identify their child's signals, such as those to halt or continue. In this way, we help the parent develop an awareness of the interpersonal rhythm between the parent and child. This reciprocity is vital to promoting a better *fit* between parent and child.

A transdisciplinary approach to feeding intervention is most successful with open communication, respect, and collaboration amongst the team. The team may consist of different disciplines, but core knowledge of feeding is essential. Within the context of the family's value system, successful feeding intervention promotes child-parent interaction, includes key players in the child's life, and includes the places in which the child eats. By providing feeding intervention in this way, we promote parents' feelings of confidence and competence as they feed and teach their child.

Bruns, D. A. & Thompson, S. D. (2010). Feeding Challenges in Young Children Toward a Best Practices Model, *Infants & Young Children*, 23(2), 93-102.



# What do the data say?

## How Common is Picky Eating?

Let's look at this question from a public opinion perspective, specifically results from The Harris Poll. The results of this poll provide insight into opinion responses, but should be reviewed with caution due to error factors such as sampling.

In January 2015, specifically between the 14th and 20th, an online survey of adults within the United States was conducted inquiring if they knew someone who is a picky eater. The survey questions were written in English. A total of 2,232 adults, 18 years and older, responded to the poll. The respondents included those who had participated in prior Harris Poll surveys. However, because multiple responses were possible the precise number of individuals responding is not known.

One question in the survey specifically stated *"Which of the following people, if any, do you consider to be picky eaters. Please select all that apply."* The results of this self-reporting survey indicated that 26% of the responses included "myself" as a picky eater. Considering the self-reporting nature of this survey and its relative open access it is possible that people who experience picky eating might have been more interested in responding to the survey than those with no experience or ongoing exposure to picky eaters. Twenty three percent responded that *"a child in my household"* is considered a picky eater and 28% responded that they did not know anyone they consider to be a picky eater.

Another question included in the poll was *"Do you believe "picky eaters" are "born" (the behavior occurs naturally) or "made" (the behavior is learned)?"* In response to this question, 29% believed it is a result of nature versus nurture while 71% indicated that picky eating is a learned behavior. Looking at this from the perspective of

respondents with children in the household, 63% reported "made" while 37% indicated "born."

When inquiring about the common reasons for picky eating, *"parenting"* ranked highest at 48% in response to the question *"Which, if any, of the following do you believe to be the most common reason for picky eating? You may choose up to three."* Following *"parenting"* was *"food allergies"* at 31%, *"excess of food options"* at 25%, and *"non-medical dietary restrictions"* at 22%. The remaining response options were *"weight loss"* (16%), *"genetic predisposition"* (14%), *"eating for general health"* (14%), *"marketing/advertising"* (13%), *"something else"* (20%), and *"not at all sure"* (11%). When considering respondents with and without children in the household, 55% and 44% respectively, reported parenting as a common reason for picky eating.

Acceptability by age was also considered. Respondents were asked *"How acceptable do you think Americans find it for each of the following individuals to be picky eaters?"* Within the age range *"children ages 7 under"* 74% found picky eating to be acceptable. The acceptability decreased with older age groups. For children within ages 8-12, the acceptability response was 66%. This decreased to 50%, 39%, and 38% respectively for the age groups 13-17, 18-24, and 25 and older.

When working with families around picky eating issues and questions it is important to consider their opinion. Perhaps some of the questions asked in this poll could provide further insight into their perspective to further inform intervention options and approaches.

The Harris Poll report is available online at: [http://www.theharrispoll.com/health-and-life/Nature\\_vs\\_Nurture.html](http://www.theharrispoll.com/health-and-life/Nature_vs_Nurture.html)



# Consultation Corner

From March through August 2016 we are excited to have Dr. Kay Toomey as our Consultation Corner expert. She will be helping us with:

## **“Supporting Families of Young Children with Feeding Challenges”**

Dr. Kay Toomey is a Pediatric Psychologist who has worked with children who don't eat for almost 30 years. She has developed the SOS Approach to Feeding as a family-centered program for assessing and treating children with Feeding Problems. Dr. Toomey speaks nationally and internationally about her approach. She also acts as a consultant to Gerber Products. Dr. Toomey helped to form The Children's Hospital - Denver's Pediatric Oral Feeding Clinic, as well as the Rose Medical Center's Pediatric Feeding Center. Dr. Toomey co-chaired the Pediatric Therapy Services Department at Rose Medical Center prior to entering private practice. Dr. Toomey is currently the President of Toomey & Associates, Inc., as well as the Clinical Director of SOS Feeding Solutions @ STAR (Sensory Therapy and Research Center with Dr. Lucy Jane Miller).

## **What are key typical feeding milestones and natural strategies to help infants/ toddlers achieve those milestones?**

When discussing the typical developmental feeding milestones and the feeding challenges that children can have, it is important to understand the complexity of the task of eating in and of itself. Most of us as adults believe that eating is always instinctive, automatic and happens easily “no matter what”. In actuality, these assumptions are not true as eating is only instinctively driven for a short amount of time in our lives, and eating is the most complicated physical task that we will ever do

as a human organism. This is because eating is the only thing we do as human beings that involves all 7 areas of human functioning: Organ systems; Muscles systems; Sensory systems; Learning (style, capacity, and history); Development; Nutrition and Environment. In order to eat well, one must have each of the 7 areas working correctly AND then we have to integrate the functioning between and amongst all of these 7 areas. Many people believe that when children won't eat, it is a problem that is “all in their heads” or that the child has a “behavioral” problem when in reality, the problem is ALL IN THEIR BODIES. In order to eat, a child must have the physical organ system capacity to do the task, as well as the physical skill and ability to complete the task correctly. Therefore, when working with children who are struggling to eat, we need to assess and address the child's issues across all of the 7 areas of human functioning.

One of the 7 areas needing assessing and addressing is Development. When children are born neurologically intact, there are natural steps in the process of development and natural developmental drives that hopefully help us to progress through the normal milestones for learning to eat well. The first milestone we need to reach is coordination of our suck-swallow-breathe patterns (see attached handout).

In the body's list of priorities, eating is NOT #1. In actuality, Breathing is the body's #1 priority, and “not falling on your head” is #2. Protecting the head, protecting the brain, requires good Postural Stability. From a respiratory standpoint, if you think about the last time you had a really bad head cold, you take a few bites of food and then have to stop and breathe. You take a few more

## Consultation Corner (continued)

bites, and have to stop and breathe. After about 3 times of doing this, most people are ready to be done eating. This is what happens to children as well. A child has to have good respiratory functioning in order to be able to eat well. Young infants, therefore, have to learn first how to coordinate their suck, swallow and breathing correctly to have effective and efficient eating.

Developmentally, humans are born with a set of primitive motor reflexes that help to drive an infant's early eating. From birth to about 4-6 weeks of life however, eating is really being driven by the appetite instinct. At 4-6 weeks of age, the appetite instinct undergoes a shift and lessens. At this point, the primitive motor reflexes really take over as the driver of an infant's eating until around 3-5/4-6 months of age. The suck-swallow-breathe patterning has a reflexive component to it. Therefore, for most young infants, their reflexes will be driving them to eat even if eating is uncomfortable or not going well. However, once children gain voluntary control over their primitive motor reflexes around 4-5 months of age, they then have a choice about whether they will continue to eat or not. Therefore, after about 6 months of age, eating is a voluntary and learned motor behavior. At this point, children have 3 choices: 1 = they learn to eat; 2 = they learn to not eat; or 3 = they learn to kind of/sort of eat.

The time period of 3-6 months is critical in an infant's development of Postural Stability; the body's second priority. During this timeframe, infants will learn to have stable head control when laying on the stomach and lifting the head and while being held upright (3 months), and then in sitting (6 months). Having stable head control allows children to begin to reach forward to grab objects and then to put them in their mouths (4-6 months); a critical requirement for being able to

self-feed. Stable head control in sitting also frees infants up to focus motorically on the mechanics of learning to spoon feed; sitting still at mid-line, leaning forward for the spoon while opening the mouth, then drawing the food off the spoon and pulling the food backwards to swallow.

Spoon feeding is not about getting volumes of baby food purees into the infant. Spoon feeding purees is about the social experience of the feeding interaction and developing social reciprocity with one's primary caregiver. In addition, spoon feeding is about helping broaden the infant's flavor palate. The baby food purees, whether commercial or homemade, are "practice" foods to help with the transition to "meltable" finger foods at around 8-9 months of age. The purees and the finger foods then set the stage for the child to transition to table foods from 12-14 months of age from both a flavor and texture standpoint. From about 15-18 months, children will then be working on developing a tongue sweeping skill to collect up all the pieces of food created by Hard Mechanical foods that shatter in our mouths. From 18-24 months of age, children are working on speed, strength and efficiency in eating bigger and bigger pieces of more and more difficult to chew table foods.

Different foods draw for an infant's mouth to move in different oral-motor patterns. In addition, a child needs to have specific oral-motor and sensory skills in order to be able to eat certain textures of foods. Pureed foods work on developing a volitional suckle (6 months) and a voluntary backwards tongue movement paired with lip closure and suction to draw the puree off the spoon (7 months).

## Consultation Corner (continued)

Thicker purees and mashed, soft table foods help the infant work on tolerating texture in their mouths and developing a tongue wave. Control over the transverse lateral tongue reflex and development of a voluntary full tongue lateralization occurs as the infant puts more and more stick shaped things in their mouths (e.g. their fingers, teether toys, your keys, the Sofie giraffe) from around 7-8 months of age. Meltable sticks and pieces of food (e.g. Baby Mum Mum's; baby cereal puffs) help the child develop tongue tip lateralization (9 months). The ability to correctly complete a tongue tip lateralization movement is the KEY to being able to transition eventually to meat, raw vegetables and fruits eaten with peels after 18 months of age. Soft cubes of food should be offered first however, and help the child work on a munching up and down motion of the jaw (10 months). This munching movement then shifts to a rotary chewing motion as Soft Mechanical foods are introduced at about 11 months of age. From 12-15/16 months of age, children then work on consolidating these basic oral-motor skills with bigger and bigger pieces of soft table foods including mixed textured foods (e.g. chicken nuggets, sandwich).

Between 2 and 3 years of age, children work on refining all of their oral motor skills to be able to manage a wide range of adult table foods. Unfortunately, a set of major developmental changes to a child's cognitive and sensory systems can often interfere with a child's eating in this age range. This results in about 50% of 2-3 year olds being reported as being "picky" eaters by their parents (Carruth et.al., 2004).

During 2 and 3 years of life, most children are going to shift from being Sensori-motor thinkers to the Pre-logical stage of cognitive development. During this transition time, their sensory tolerance appears to decrease (Brazelton's "touchpoints" theory). As a result of these two changes, children become more self aware of what does and does not feel good to their bodies. Unfortunately, not a lot of things feel good because their sensory functioning regresses. This is what results in the increase in "picky" eating in this age range. Research shows that about 20% of children will struggle with feeding challenges from birth until about 5-7 years of life. However, only about 1/2 of these children actually "outgrow" their pickiness. Therefore, while development plays a role in some "picky eating", most picky eating is really the result of a child's feeding skills and abilities combined with their physical/medical status.

Carruth, B., Ziegler, P., Gordon, A., & Barr, S. (2004). Prevalence of Picky Eaters among Infants and Toddlers and Their Care-giver's Decisions about Offering a New Food. *Journal of the American Dietetic Association, Suppl. 1, 104(1), S57-S64.*

The Touchpoints™ Model of Development T. Berry Brazelton, M.D., and Joshua Sparrow, M.D. (2003). T.B. Brazelton and Joshua Sparrow. Brazelton Touchpoints Center [www.touchpoints.org](http://www.touchpoints.org).



## On the WWW

The web resource this month is a set of quick tips for picky eaters from the Mayo Clinic's Healthy Lifestyle Children's Health.

This link includes "10 tips for picky eaters." It is located at [www.mayoclinic.org/healthy-lifestyle/childrens-health/in-depth/childrens-health/art-20044948?pg=1](http://www.mayoclinic.org/healthy-lifestyle/childrens-health/in-depth/childrens-health/art-20044948?pg=1)

The ten tips include:

1. Respect your child's appetite

2. Stick to the routine
3. Be patient with new foods
4. Make it fun
5. Recruit your child's help
6. Set a good example
7. Be creative
8. Minimize distractions
9. Don't offer dessert as a reward
10. Don't be a short-order cook

Check out the link to learn more about each of these tips.



## Continuing Education for KIT Readers

The Comprehensive System of Personnel Development (CSPD) is offering a continuing education opportunity for KIT readers.

In line with the focus on *Supporting Families of Young Children with Feeding Challenges*, readers are invited to receive continuing education contact hours for reading the monthly KIT publications (March through July 2016) and completing a multiple-choice exam about the content covered in these KITs.

KIT readers will receive the exam in August 2016. There is no need to register for the CEUs. Rather, if you are interested complete the exam online at [www.edis.army.mil](http://www.edis.army.mil)

Upon successful completion of the exam, you will receive a certificate of non-discipline specific continuing education contact hours.

KIT Newsletters  
are available  
online at  
[www.edis.army.mil](http://www.edis.army.mil)

Thank you for your continued interest in the KIT.



# KIT Consultation Corner - Handout by Dr. Toomey

## **CRITICAL MOTOR & ORAL-MOTOR MILESTONES FOR FEEDING**

### **34-42 weeks gestation:**

Coordination of suck-swallow-breathe pattern emerges

### **2 ½ - 3 ½ months of age:**

∩ Steady head control achieved

### **4-6 months of age:**

- Reflexive sucking is replaced by learned motor patterns (active sucking)
  - Downward/forward growth of mandible creates larger oral space, with tongue no longer filling the oral cavity at rest
  - Anterior/posterior movement is achieved with active movement forward and backward versus via pressure changes (as with bottle/breast feeding)
- ∩ Beginning hand-to-mouth play (independent oral exploration of objects)

### **6-7 months of age:**

- ∩ Trunk control sufficient for independent sitting for greater than 3-5 minutes
- ∩ Stable head control in sitting (no head bobbing)

### **7-9 months of age:**

- Emerging tongue lateralization begins
- Munching (vertical jaw movement) and gnawing develops
- Lip closure supports movement of food back for a swallow

### **12-14 months of age:**

- Active tongue lateralization
- Rotary chew emerges
- Change in taste bud perception

### **14-16 months of age:**

- ∩ Efficient finger feeding
- ∩ Practicing utensil use versus effective use for volume

### **18-24 months of age:**

- All oral-motor skills needed to eat any table food presented have been achieved
- ∩ Increasing utensil use (not efficient until after 24 months of age)

### **References Adapted From:**

Glass, R. & Wolf, L. (1992). *Feeding and Swallowing Disorders in Infancy*. Tuscon, AZ: Therapy Skill Builders.

Morris, S.E. & Klein, M.D. (1987). *Pre-Feeding Skills*. Tuscon, AZ: Therapy Skill Builders.

Ross, E. & Brosseau, J. (1999). Unpublished materials (with permission). Denver, CO: Rose Medical Center.