Feeding and Eating Issues in ASD

Feeding and Eating Issues in ASD

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Objectives

1. Describe typical feeding development
2. Be able to recognize “red flags” or signs of feeding problems
3. Discuss some common strategies to help expand diet

Your Own Food Experiences

- Least favorite food(s) in childhood?
- Reason (sensory, hard to chew, makes you feel bad…)
- How can this create empathy?

What's Typical?

- Eating patterns will changes based on overall level development
- Intake may vary from day to day
- Illness or growth spurt can impact appetite

What's Typical?

- 4-8 months: Purposely spits out food as part of exploration
- 8-10 months: Ready for finger foods (rakes); may put finger in mouth to move food
- 10-12 months: Finger feeds soft, chopped foods; drops food to see where it goes
- 12-18 months: Messy play, spoon use improves

What's Typical?

- 18-24 months: Picks up, dips and brings food to mouth; increased skill with utensils
- 2-3 years: May fill spoon with fingers, begins to use fork; May want to eat same foods over and over
- 3-4 years: Uses utensils well; likes to help with food prep

What's Typical?

- Food neophobia a normal stage of development between age 2 - 6.
- Picky eating/neophobia peaks between 18-24 months.
- May take 10-15 presentations of a new food before a child will eat it. (Neurodivergent children may need additional and different approaches)

Red Flags

Early Feeding

- Difficulty keeping up with the flow of milk
- Clicking sounds when breastfeeding, or mom says latching is painful
- Fatigues easily, falls asleep before finishing the bottle
- Difficulty transitioning from a bottle to purees (by 10 months) and solid foods (by 12 months)
- Difficulty chewing (mature rotary chew still developing through age 4)

Red Flags

Medical

- Coughing, choking, gagging, vomiting, history of pneumonia
- Makes loud breathing noises? Turns blue? Becomes worn out before the end of feedings?
- Appetite changes?
- Allergic reactions?
- Constipation? Diarrhea?
- GERD? Arching back? Hoarse voice?

Sensory/motor concerns

OBSERVATIONS

- Limited diet due to eating only one texture or flavor
- Completely avoids touching food or plays with food instead of eating
- Not using utensils (at least trying and making progress) by age 2
- Poor postural control

PLAN

- Speak with pediatrician
- Consider referral to Early Intervention (EI) - include delays in eating skills
- Consider developmental delay
- Some children will have sensory differences without ASD

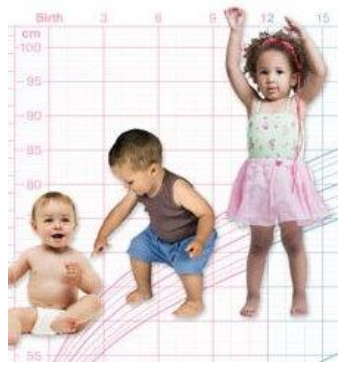
Red Flags

Look at the big picture

- Short stature, abnormal head circumference → Consider genetic, endocrine conditions
- Constipation → Hirschsprung, UTIs
- Dysphagia → CP, Eosinophilic esophagitis (EoE)
- Anemia, diarrhea → Inflammatory Bowel Disease (IBD)
- Rash → Celiac disease
- Vomiting/gagging/choking/coughing → Aspiration
- Picky eating, overeating → Genetic conditions (e.g. Prader Willi)
- Restricted behavior & sensory differences → Autism Spectrum Disorder (ASD)

Nutrition / Growth Red Flags

- >95th % or <5th % weight-for-age, or crosses 3 major percentile groups
- Does not triple birthweight by age 1
- Declines in length/stature-for-age percentile
- Is on special diet: e.g. milk allergy - are they getting calcium?
- Misses certain food groups: e.g. no meats, fortified grains, or legumes – are they getting adequate iron?
- Notes: Make sure child is plotted on appropriate growth chart (i.e. Down syndrome, cerebral palsy)



Feeding/Eating issues Impact & Consequences

Common diagnoses

Pediatric Feeding Disorder

Impaired oral intake that is not age-appropriate, and is associated with medical, nutritional, feeding skill, and/or psychosocial dysfunction

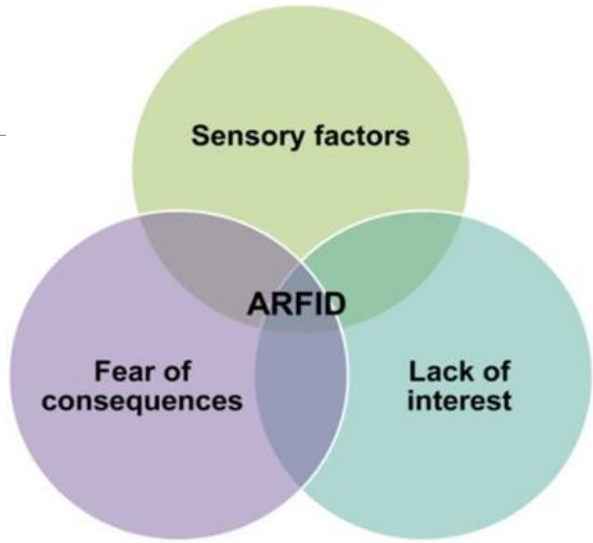
Avoidant and Restrictive Food Intake Disorder (ARFID)

Restricted nutrition that results independently from a mental or physical illness, and not related to a body image disturbance

https://pmc.ncbi.nlm.nih.gov/articles/PMC6314510/

ARFID Subtypes

- Lack of interest
- Sensory factors
- Fear of aversive consequences



Pediatric Feeding Disorder

1. A disturbance in oral intake of nutrients, inappropriate for a child's chronological age (vs. developmental age), lasting at least 2 weeks and associated with 1 or more of the following:
   - Medical
   - Nutritional
   - Feeding Skill
   - Psychosocial dysfunction
2. The impaired oral intake occurs in the absence of the cognitive processes consistent with eating disorders, The pattern of oral intake is not due to a lack of food or congruent with cultural norms.

ARFID vs. Pediatric Feeding Disorder (PFD)

ARFID	PEDIATRIC FEEDING DISORDER (PFD)
•Throughout lifespan	•Early childhood
•Diagnosed any time	•Diagnosed early childhood
•Intended end-user is psychologist/therapist	•Intended end-user MD, SLP, OT, and/or RD, and more
•Nutritional, psychosocial	•Nutritional, psychosocial, medical, feeding skill

Literature affirms families' experiences

- 80% of children with ASD experience feeding problems
- Comorbid GI symptoms in 80% of ASD children (GERD, constipation)
- Sensory processing differences (78-90% of ASD children)
- Rigidity in mealtime preferences may lead to challenging behavior
- Narrower range of foods, brand specific – reduces shared meals

"It is possible that an eating phenotype exists in children with ASD."

Leader, G., Tuohy, E., Chen, J.L. et al. Feeding Problems, Gastrointestinal Symptoms, Challenging Behavior and Sensory Issues in Children and Adolescents with Autism Spectrum Disorder. J Autism Dev Disord 50, 1401–1410 (2020). https://doi.org/10.1007/s10803-019-04357-7


The parent-child connection is the most powerful mental health intervention known to mankind.
—Bessel Van Der Kolk

Strategies for Kids

- Shop, cook and eat together
- Have regular mealtimes
- Include a preferred food with new foods
- Introduce new foods multiple times

Strategies
Environment

- Mealtime setting
- Seating
- Tools

Strategies

Sensory

Sight, sound, taste, texture, temperature, odor

Strategies
Nutritional

- Optimize diet within current skillset
- Division of Responsibility
- Food chaining

Strategies
Nutritional

- Division of Responsibility (Ellyn Satter)
- Parents decide *when, where, and what* to eat. Child decides *whether* and *how much*.

"Kids who eat on demand throughout the day are in a perpetual state of hunger limbo. Because children are born with the innate ability to adhere to hunger cues, they have no motivation or reason to eat simply because it is mealtime." -Jenny Friedman, RD

Strategies
Medical

- Discuss medical red flags/associated conditions, with the primary care provider (PCP).
- If there is a concern for aspiration, please talk with the PCP or recommend being seen at an urgent care.
- Give general recommendations for a healthy lifestyle (Use the “5-2-1-0 Rule”) and prevention of constipation.
- Have periodic dental exams

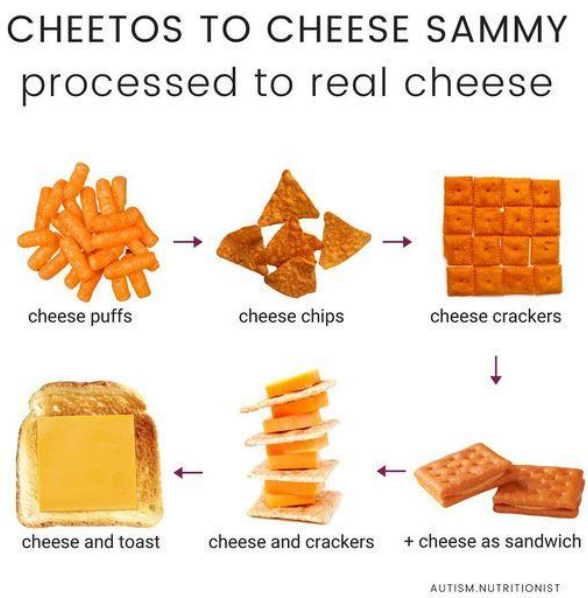
Strategies – Teens/Adults

Psychotherapy – May include CBT (cognitive-behavioral therapy) for ARFID (CBT-AR)

Support groups

Eating disorder treatment programs (e.g. Intensive Outpatient, Partial Hospitalization, or residential treatment)

Neurodiversity-supportive strategies: expand within desired categories, and build community and individual support to help exist in the world with sensory differences



Sample Food Chain

Cheese puffs →
Cheese chips→
Cheese crackers →
Cheese cracker sandwich →
Cheese with crackers →
Cheese toast→

Image source: https://www.jennyfriedmannutrition.com/


RDs for Neurodiversity
Maslow's Hierarchy of Needs
"ARFID edition"
Learning to eat a new and/ or "challenging food"
Self-Actualization
learning, creativity, inner potential
Esteem
freedom, respect, recognition, unmasking, acceptance
Love and Belongingness
friends, family, affirming-care
Safety
security, predictability, safe sensory environment
Physiological Needs
sensory-friendly foods, shelter, sensory-friendly clothing
1
2
3
4
5
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It's complicated!

Carlos, 24 months

Carlos was born premature at 30 weeks, born via c-section due to low fetal movement. No complications at birth. Went home at 7 days of life. Some struggling with latching and weight gain.

Carlos is displaying some delayed milestones (struggling with solid foods, relies on the bottle). Has started using some sippy cup during the day. Has excessive drooling. Had difficulty chewing, continued purees until 18 months old. Started walking independently at 19 months old. Struggles with mixed textures, and avoids sticky foods. Prefers finger foods, dry textures (puffed snacks, crackers). Gags at the sight of food that he dislikes. He is coughing when drinking water and milk from an open cup. He hasn't had any pneumonia. He often has pebble-like stools (about once per week).

At 24 months, he is rarely pointing. He only says a few words. He passed the hearing screen. He likes to inspect things very closely and with the corner of his eyes. He flaps his hands when he's excited.

Carlos - Recommendations

Referral to Early Intervention (EI)

- Occupational Therapist – Sensory evaluation
- Speech-Language Pathologist (SLP)
- M-CHAT screening
- Feeding evaluation / feeding therapy

Developmental evaluation

Autism evaluation

Review growth history (at pediatrician's office)

Feeding/Eating Therapy

Adaptive utensils

Modifying diet to increase food repertoire within current skillset

Modifying diet to increase food repertoire within texture preferences

Training with open cup

Training with utensils

A damp cloth to wipe off fingers at the table

Position upright – use the 90/90/90 rule

Added creative iron-rich foods (Cheerios, Chex, chicken nuggets, meatballs, peanut butter, sweet potato fries, lentil crackers)

Limit milk before meals to encourage appetite

Encourage good dental hygiene

Switched to Pediasure Fiber

Jessica, 13 y.o.

Jessica was born full-term at 40 weeks with adequate birth weight. Was growing well for her age until about age 7. Met all her milestones on time. Jessica's parents noticed she liked to read all day, and got along better with adults than with children her age. She preferred certain foods cooked in a particular way (e.g. chicken nuggets had to be cooked in the air fryer)

Jessica had a tonsillectomy (surgery to remove the tonsils) at 6 y.o. The day after surgery, she developed heavy bleeding and sore throat, and had to return to the O.R. She was on pureed foods. After this second surgery, hoping to transition back to her diverse diet she was eating before. She started refusing many foods, especially solid foods.

As she progressed in school, she demonstrated increased worry about various topics (being late to school, worried about the food situation at school, doing homework). She had difficulty falling asleep, and also wakes several times in the night. No longer snoring. She relies on milk and chocolate milk, mashed potatoes, pudding, ice cream, chicken nuggets, Uncrustables sandwiches. Is in the gifted program, but has no friends at school. She is likes to collect Barbie dolls and line them up in her room, and gets really upset if someone moves them out of order. Mother reports a personal history of anxiety and depression.

Jessica, 13 y.o.

Thorough medical examination (check for oral lesions, strictures, other issues)

Labs: iron studies

Swallow study

Check growth parameters

Refer to pediatric mental health therapist

Referral to Pediatric Psychiatry

Referral to sleep study

Jessica, 13 y.o.

The SLP at the swallow study cleared Jessica for all textures of foods.

The repeat sleep study did not find any evidence of sleep apnea.

Jessica's therapist recommended a formal autism evaluation- was diagnosed with ASD, and started ABA therapy. They also recommended feeding therapy with an Occupational Therapist, and Jessica did that once per week.

Jessica participated in CBT and play therapy with her mental health therapist.

Pediatric psychiatrist recommended starting a small dose of medication for anxiety due to the food phobias and generalized anxiety

About 12 months after starting medication for anxiety and doing feeding therapy, Jessica was able to triple her food repertoire and she reported feeling much more flexible about foods.

And there's hope.

Using Your Resources

- Consult with pediatrician on red flags (they may address, or refer to GI, allergist, or other specialists)
- Add OT, SLP, or PT to EI Team when needed
- Pediatric dietitian
- Pediatric dentist
- Lactation consultant
- Outpatient feeding therapy

A Speech-Language Pathologist (SLP) can help with the following:

Making the muscles of their mouth stronger, helping them move their tongue more, helping them chew food

Food exposures during therapy sessions

Improving how well they can suck from a bottle or drink from a cup

For infants: Helping them learn how to breathe while sucking and swallowing

Changing food textures and liquid thickness to help them swallow safely

Helping with sensory issues. Your child may not like the way food feels in their mouth or on their hands. The SLP can help them get used to how food feels

Changing the way you hold your baby or the way your child sits when eating.

An Occupational Therapist (OT) can help with the following:

Sensory processing

Help to reframe challenges using a sensory lens. For example, looking at food sensory preferences as a place to start to help widen a child's diet. Beginning with these "safe" features (textures, flavors, colors, odors or even shapes) can support a child's comfort with trying new foods.

Motor skills (fine motor/hand use, oral-motor and seating/postural control) For example, help with using a spoon and fork and learning to chew efficiently; and providing supportive seating.

Environment and Routines

For example, adjusting the environment to support a child's (and/or caregiver's) sensory needs and family-centered coaching on the value of mealtime routines.

- Meredith P. Gronski (2021) Occupational Therapy Interventions to Support Feeding and Toileting in Children From Birth to Age 5 Years. *American Journal of Occupational Therapy.* September/October 2021, Vol. 75(5).
- Carpenter, K. M., & Garfinkel, M. (2021). Home and parent training strategies for pediatric feeding disorders: The caregivers' perspective. *The Open Journal of Occupational Therapy*, *9*(1), 1-21.

Resources - *Feeding Intervention*

Please contact these resources to find out more about feeding therapy in your area. Please also share contact information for providers that you know about but are not currently listed.

- UNM CDD Information Specialists

  (505) 272-8549

  HSC-InfoNet@salud.unm.edu

- Autism Family and Provider Resource Team

  (505) 272-1852

  1 (800) 270-1861

  HSC-AutismPrograms@salud.unm.edu

- Medical Home Portal

  https://www.medicalhomeportal.org/

Resources

Feeding Matters
https://www.feedingmatters.org/

Jenny Friedman
https://www.jennyfriedmannutrition.com/
Book: Stories of Extreme Picky Eating

Book: Food Chaining The Proven 6 Step Plan to Stop Picky Eating, Solve Feeding Problems, and Expand Your Child's Diet by Cheri Fraker et al.

Resources

Get Permission Approach
Marsha Dunn Klein, OTR/L, M.Ed., FAOTA
https://getpermissioninstitute.com/
Book: Anxious Eaters, Anxious Mealtimes

Melanie Potock, MA, CCC-SLP https://mymunchbug.com/
Book: Responsive Feeding

Resources

SOS Approach

Kay A. Toomey, PhD

https://sosapproachtofeeding.com/

Kids Eat in Color

https://kidseatincolor.com/

Resources

Responsive Feeding:

https://www.ellynsatterinstitute.org/

https://www.healthychildren.org/English/ages-stages/baby/feeding-nutrition/Pages/Is-Your-Baby-Hungry-or-Full-Responsive-Feeding-Explained.aspx

Chicago Feeding Group: https://chicagofeedinggroup.org/

Resources

Pathways.org

https://pathways.org/picky-eaters-vs-problem-feeders/

Zero to Three: How to Handle Picky Eaters

https://www.zerotothree.org/resource/how-to-handle-picky-eaters/

AAP Parenting Website: https://healthychildren.org/English/Pages/default.aspx

(see sample menus for general ideas, ages & stages, etc.)

Pediatric Feeding Disorder Consensus Definition

https://journals.lww.com/jpgn/Fulltext/2019/01000/Pediatric_Feeding_Disorder__Consensus_Definition.24.aspx

Resources

Pediatric Advisor: https://www.abcdpediatrics.com/advisor/pa/pa_index.htm

Autism Speaks constipation guide: https://www.autismspeaks.org/sites/default/files/2018-08/Constipation%20Guide.pdf

Bristol Stool Chart: https://www.webmd.com/digestive-disorders/poop-chart-bristol-stool-scale

Q & A

References

Feeding milestones

- Baby:
  - https://www.healthychildren.org/English/ages-stages/baby/feeding-nutrition/Pages/default.aspx
- Toddler:
  - https://www.healthychildren.org/English/ages-stages/toddler/nutrition/Pages/default.aspx

References

- Białek-Dratwa, et al. (2022), Neophobia-A Natural Developmental Stage or Feeding Difficulties for Children? Nutrients. Apr 6;14(7).
- Coulthard & Thakker (2015). Enjoyment of Tactile Play is Associated with Lower Food Neophobia in Preschool Children. Journal of the Academy of Nutrition and Dietetics,115 (7).
- Gronski (2021). Occupational Therapy Interventions to Support Feeding and Toileting in Children From Birth to Age 5 Years. The American Journal of Occupational Therapy, 75 (5).
- Adams, et al. (2013). Early Intervention, IDEA Part C Services, and the Medical Home: Collaboration for Best Practice and Best Outcomes. Pediatrics, 132 (4).

Bonus Slides

Pediatric Feeding Disorder

Impaired oral intake that is not age-appropriate, and is associated with medical, nutritional, feeding skill, and/or psychological dysfunction.

A unifying diagnostic term, “Pediatric Feeding Disorder,” was proposed in 2019. This term unified the medical, nutritional, feeding skill, and/or psychosocial concerns associated with feeding disorders.

Prevalence is 1 in 23 children, and 1 in 37 under the age of 5, annually in the United States.

Pediatric feeding disorder, chronic (>3 months) (R63.32)

Pediatric feeding disorder, acute (<3 months) (R63.31)

Pediatric Feeding Disorder
Consensus Definition and Conceptual Framework

A. A disturbance in oral intake of nutrients, inappropriate for age, lasting at least 2 weeks and associated with 1 or more of the following:
1. Medical dysfunction, as evidenced by any of the following[*]:
a. Cardiorespiratory compromise during oral feeding
b. Aspiration or recurrent aspiration pneumonitis
2. Nutritional dysfunction, as evidenced by any of the following[†]:
a. Malnutrition
b. Specific nutrient deficiency or significantly restricted intake of one or more nutrients resulting from decreased dietary diversity
c. Reliance on enteral feeds or oral supplements to sustain nutrition and/or hydration
3. Feeding skill dysfunction, as evidenced by any of the following[‡]:
a. Need for texture modification of liquid or food
b. Use of modified feeding position or equipment
c. Use of modified feeding strategies
4. Psychosocial dysfunction, as evidenced by any of the following[§]:
a. Active or passive avoidance behaviors by child when feeding or being fed
b. Inappropriate caregiver management of child's feeding and/or nutrition needs
c. Disruption of social functioning within a feeding context
d. Disruption of caregiver-child relationship associated with feeding
B. Absence of the cognitive processes consistent with eating disorders and pattern of oral intake is not due to a lack of food or congruent with cultural norms.

DEFINED BY:	PICKY EATERS	PROBLEM FEEDERS
# of foods in Food Range consistently eaten when presented	Decreased range or variety of foods; typically has 30 or more foods in their Food Range	Restricted range or variety of foods, usually eats less than 20 foods
Loss of foods from Food Range	Foods lost due to "burn out" from Food Jagging are usually eaten again after a 2 week break	Foods lost due to "burn out" from Food Jagging are not eaten again after a break, resulting in a further decrease in the # of foods eaten
Ability to eat foods from all categories of foods (texture and nutrition)	Eats at least one food from most all nutrition or texture groups (e.g. purees, Meltable foods, proteins, fruits)	Refuses entire categories of food textures or nutrition groups (e.g. soft cubes, meats, vegetables, Hard Mechanicals)
Tolerance of New Foods on their plate	Can tolerate New Foods on their plate; usually able to touch or taste food (even if reluctantly)	Cries, screams, tantrums, "falls apart" New Foods are presented; complete refusal
Ability to eat the same foods as their family	Frequently eats a different set of foods at a meal than other family members; (typically eats at the same time and at the same table as other family members)	Almost always eats a different set of foods than their family; often eats at a different time or at a different place than other family members
Duration and report of "pickiness"	Sometimes reported by parent as a "picky eater" at well-child check-ups	Persistently reported by parents to be a "picky eater" at multiple well-child check-ups
Ability to learn to eat New Foods	Learns to eat New Foods in 20-25 steps on a Steps to Eating Hierarchy	Requires more than 25 to learn to eat New Foods