

IOWA

The Role of WIC in Children with Autism: How Can We Help?

The Role of WIC in Children with Autism: How Can We Help?

Stephany Brimeyer, MPH RD LD CSP

Jody Kealey, RD LD

September 29, 2025

1

Overview

- Prevalence of eating issues in ASD
- Nutrition considerations
- Characteristics of ASD related to eating/feeding
- Strategies to address eating issues



2

Picky Eating: What's Typical? What's Not?

Picky Eater	Problem Feeder
Eats at least 30 different foods	Very restricted variety of foods (less than 20).
Accepts a food after taking a break from it for 2 weeks.	After they food jag (eating a food consistently then suddenly refusing that food), the child typically never eats the

- **Picky eating** is usually temporary.
- **PFD** involves skill, medical, nutritional, or physiological challenges.
- **ARFID** is a mental health diagnosis with serious nutritional and emotional impacts.

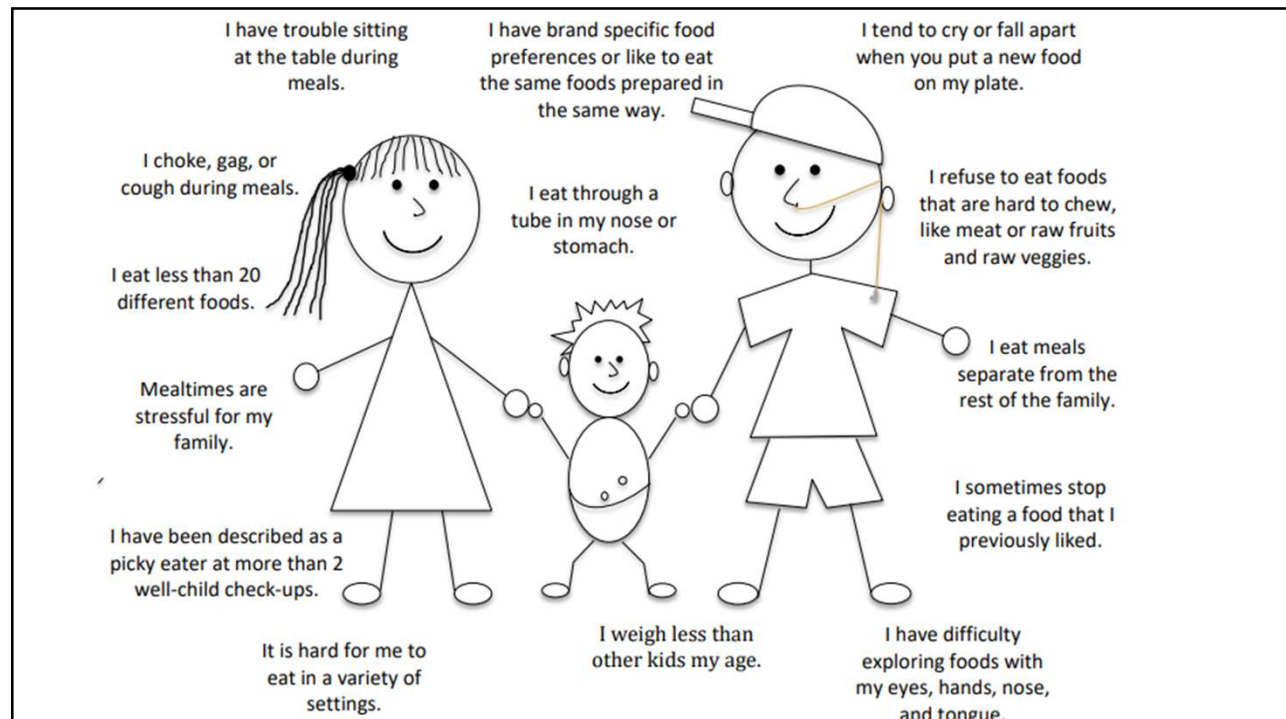
or type of texture.	of texture.
Eats with the family.	May eat at different times or spaces than the rest of the family.
Described as a "picky eater" for less than 2 years.	Described as a "picky eater" for more than 2 years.

IOWA

The Role of WIC in Children with Autism: How Can We Help?

<https://therapyworks.com/blog/feeding/sos-feeding-approach/>

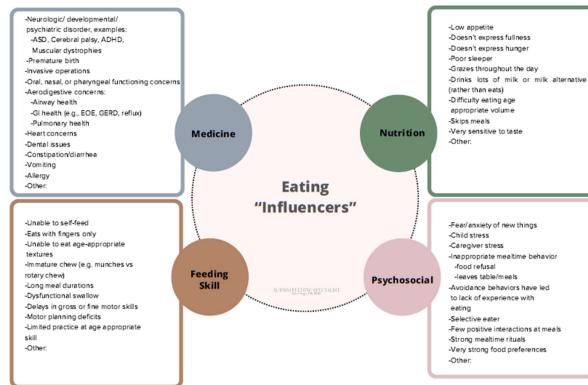
3



4

PREVALENCE

An estimated 46–89% of children with autism spectrum disorder (ASD) have feeding problems; 5x higher than the neurotypical population (Ledford, 2006)



IOWA

The Role of WIC in Children with Autism: How Can We Help?

5

ASD & Pediatric Feeding Disorder

- **Nutrition:** rigid food patterns (27%); strong aversions; exclusion of whole food groups
 - Grain products and/or chicken (usually nuggets) were the preferred foods for 92% of children with autism who had limited food preferences
- **Medical:** GI disturbances, medication side effects
- **Feeding skills:** hypersensitivity to food textures (46%), pocketing food without swallowing (19%), oral motor impairments, sensory processing
- **Psychosocial:** Resistance to change, mealtime behaviors, pica (12%), rumination

(Mayes, 2019)

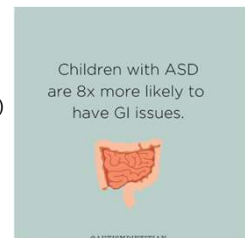
IOWA

The Role of WIC in Children with Autism: How Can We Help?

6

Eating Influencers: Medical

- Constipation, abdominal pain, diarrhea, gas, and vomiting significantly higher in those with ASD (McElhanon, 2014; Vuong, 2017)
- 9-91% of children with ASD experience GI issues (Ibrahim, 2009)
- Autistic symptomatology may be more frequent/severe in children with comorbid GI problems (Ibrahim, 2009). GI issues should be considered with agitation, food refusal, and sleep disruption (Hyman, 2012)
- Children with ASD have been shown to have different intestinal microbiota populations than neurotypical children (Vuong, 2017)
- Gut imbalances in children with autism may create an imbalance of metabolites in the digestive system – ultimately disrupting neurotransmitter production and influencing behavioral symptoms (Aziz-Zadeh, 2025)



GI issues are not the sole cause of eating issues or ASD characteristics, but they certainly do not help matters

IOWA

The Role of WIC in Children with Autism: How Can We Help?

7

Eating Influencers: Nutrition

- Calorie intake similar to peers
- More sugary drinks, refined grains, packaged/snack foods & fried foods
- Fewer fruits, veggies & protein (Evans, 2012)



Food Group	Key Nutrients
Grains	B Vitamins, Minerals, Fiber
Dairy	Ca, Vit D, Vitamin A, B12, Riboflavin, Potassium, Protein
Protein	Iron, Zinc, Magnesium, Protein
Fruits	Vitamin C, Folate, Potassium, Fiber
Veggies	Vitamins A, E, and K, Folate, Fiber

- Vitamin D most often deficient
- Possible deficiencies of vitamins A, E, iron, iodine and zinc (Marinov, 2024)
- C, B6 & B12, calcium, potassium, choline & fiber (Stewart, 2015; Zimmer, 2012)
- Some may have issues absorbing folic acid

IOWA

The Role of WIC in Children with Autism: How Can We Help?

8

Feeding Influencer: Eating Skills

Feeding development in children with normal development vs. those with autism (Al-Beltagi, 2024)

Age range	Normal feeding development	Feeding development in children with autism
0-6 months	Suck-swallow reflexes are well-developed; begins to coordinate sucking, swallowing, and breathing during feeding	May exhibit weak suck, poor coordination of sucking and swallowing, or difficulties breastfeeding
6-12 months	Introduced to pureed foods; begins to develop pincer grasp for self-feeding; starts to handle a variety of textures	It may show oral tactile sensitivity or gagging, a preference for smooth, pureed foods, and delays in self-feeding skills
12-18 months	Progresses to more textured foods; begins to use utensils; starts to drink from a cup	Persistent preference for purees; resistance to textured foods; may continue using a bottle; difficulty using utensils
18-24 months	Eats a variety of foods; able to chew a wide range of textures; uses a spoon and fork more efficiently	Limited food variety; preference for specific textures or types of food; may have incomplete mastication and occasional choking
2-3 years	Further develops chewing skills; eats most family foods; drinks from an open cup; uses utensils independently	Continued rigidity with food choices; may insist on specific foods or avoid entire food groups; ongoing issues with chewing and swallowing
3-4 years	Expands diet to include more complex textures; shows improved self-feeding skills; less picky eating	Persistent selective eating; might insist on using a bottle or refuse sippy cup; difficulty with mixed textures
4-5 years	Eats a wide range of foods; improved social eating behaviors; uses utensils proficiently	Ongoing rigidity with food variety and textures; may still prefer smooth or specific-textured foods; potential social eating challenges
5+ years	Generally eats a varied diet, participates in family meals, fewer food-related issues	Continues to display selective eating patterns; may require feeding therapy; potential need for specialized diets to meet nutritional needs

IOWA

The Role of WIC in Children with Autism: How Can We Help?

9

IOWA

The Role of WIC in Children with Autism: How Can We Help?

Five Pillars of NAM® as it relates to eating & nutrition

1. Challenge/Unlearn Ableism
2. Guide Self-advocacy and Leadership
3. Acceptance-based
4. Trauma-informed
5. Mind-Body connection

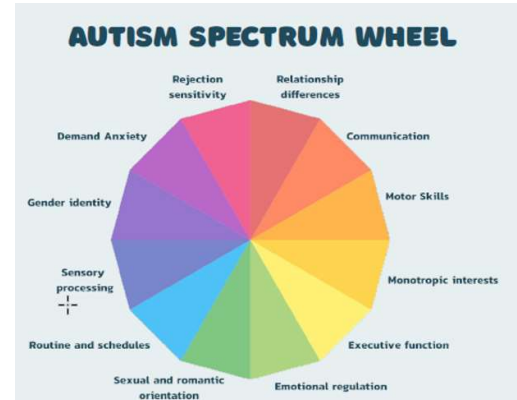
<https://www.rdsforneurodiversity.com/neurodiversity-affirming-model>



10

Characteristics of ASD Needs

- Repetitive Routines/Behaviors
- Deep interests
- Language/Communication
- Executive Functioning
- Anxiety/Social interaction
- GI issues
- Sensory –based food issues



Franklin D. Roosevelt: "Nobody cares how much you know, until they know how much you care."

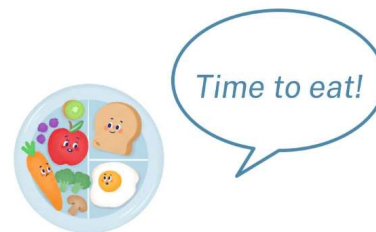
IOWA

The Role of WIC in Children with Autism: How Can We Help?

11

Eating is NOT just about food

Vision The Dinner DJ	Presentation matters – and for some kids the colors, shapes, lights are visually overwhelming .
Auditory The Dinner DJ	Some kids hear everything and can't tune out the crunching, slurping, clinking, chatter and laughter.
Tactile The Texture Tester	Food on the hands, in the mouth that is sticky, slimy, hot, cold... Inconsistent!
Olfactory The Aromatic Overachiever	The scent fills the room and for some kids this makes eating impossible. Think rotten eggs – brain interprets a threat
Gustatory The Flavor Firework	Every bite is a flavor rollercoaster – Disgust towards potential toxins



Welcome to
THE SENSORY SMORGASBORD

(where all 8 sensory systems show up ready to party)

Cari Ebert, MS, CCC-SLP (pediatric speech-language pathologist and parent of an Autistic child)
 Instagram: @cari.ebert.seminars






IOWA

The Role of WIC in Children with Autism: How Can We Help?

12

Eating is NOT just about food

Vestibular  The Balance Coach	Sitting still isn't easy when your inner balance system is on high alert . Even staying in a chair and keeping the head in a neutral position (for safe swallow) can feel like a workout .
Proprioception  The Muscle Monitor	Bite food with just the right amount of pressure , holding a glass (or a piece of food) and setting it down gently can result in spills and splashes and smashed up foods.
Interoception  The Inner Messenger	Am I hungry, thirsty, full, nauseous? All these signals at once make it hard to figure out needs and wants .
Parent Role	Co-regulate, provide structure, calm responses, and connection around meal and snack time.



Welcome to THE SENSORY SMORGASBORD

(where all 8 sensory systems show up ready to party)

L. R. Knost "When little people are overwhelmed by big emotions it's our job to share out calm, NOT join their chaos."

(pediatric speech-
d parent of an Autistic
seminars



IOWA

The Role of WIC in Children with Autism: How Can We Help?

13

Knowing What to expect Promotes Emotional Wellbeing

ATN/AIR-P Guide to Exploring Feeding Behavior in Autism

Some researchers estimate that over half of children with autism have some sort of issue with food. These feeding issues can be of significant concern to parents because they can impact their child's health and wellbeing.

This tool kit helps parents and professionals better understand feeding behavior

Sections include:

- What are feeding problems?
- Conditions that might affect feeding
- When to be concerned
- Tips to help with feeding issues at home
- Frequently asked questions

We hope that this tool kit will give you a better understanding of how to help your child with feeding issues.

Autism speaks: Parent's Guide to Feeding Behavior in Children with Autism
<https://www.autismspeaks.org/tool-kit/exploring-feeding-behavior-autism>

• Feeding difficulties and Mealtime Challenges are:

- Common (up to 80%)
- Stressful
- Long, Slow Journey

FDR: "Nobody cares how much you know, until they know how much you care."

"Despite dietary selectivity, calories and protein intake often meet your child's needs."

AAP Clinical Report on Management of Children with ASD 2007

14

The Role of WIC in Children with Autism: How Can We Help?

14

Asking and Responding to Feeding Challenges

Family might mention:	You might respond with:
Can't get my child to sit with family/school for meals.	Pillar 1 NAM® - Unlearn ableism "Is it important to your family that everybody sits at the table?" "Could the surroundings of the environment over stimulating?"
My child refuses to drink milk.	Pillar 2 NAM® - Guide Leadership/Advocacy "Make it a priority to review your concerns with your child's primary care physician." OR "Sometimes tummy issues (constipation) or food sensitivities can cause eating issues."
My child is a picky eater. Don't know what to feed my child.	Pillar 3 NAM® - Acceptance-based "What looks like picky eating is actually your child's way of navigating the world and protecting his nervous system." "Children with autism are not just picky eaters, they are sometimes "super tasters" and are able to detect very small changes in foods making it a challenge to find foods to feed them every day."
My child only wants to eat X.	Pillar 4 NAM® - Trauma-informed "sensory trauma" "Children with autism find comfort in the same foods and familiar foods; decreases anxiety during mealtime because they know what to expect from the texture of crackers vs a banana which changes taste and texture the more it ripens."
My child refuses to eat at a meal.	Pillar 5 NAM® - Mind/Body Autonomy "Trust your child's refusal to eat and plan for a nourishing snack after 2 hours as another eating opportunity." "Use outside cues (the timing of a favorite TV show or a special song or a timer) to help child regulate his internal eating cues."

15

The Role of WIC in Children with Autism: How Can We Help?

15

Nutritional Considerations

Stay out of the weeds!

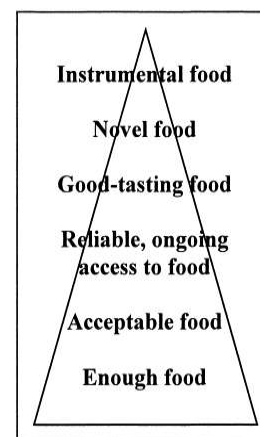


Figure viewer

Figure: Satter's Hierarchy of Food Needs.

IOWA

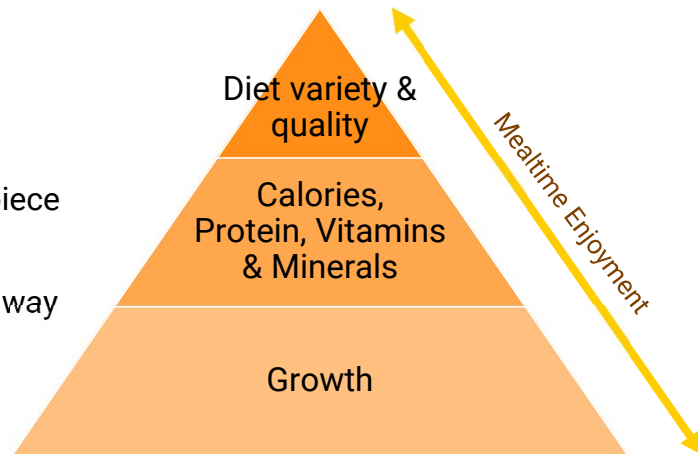
The Role of WIC in Children with Autism: How Can We Help?

16

Nutrition Considerations

- Maximize growth
- Consider supplementation
- Be mindful of the medical piece
- Drink timing/ volume
- Talk about Variety in a new way

"Children move up on the hierarchy when they are ready....their nutritional status is likely to be just fine." Elyn Satter Registered Dietitian and Family Therapist



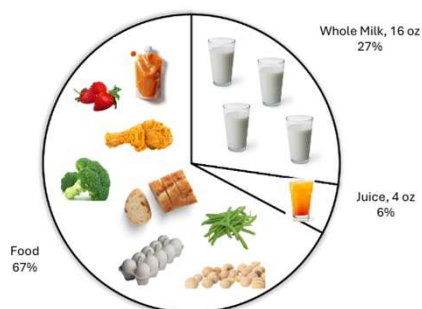
IOWA

The Role of WIC in Children with Autism: How Can We Help?

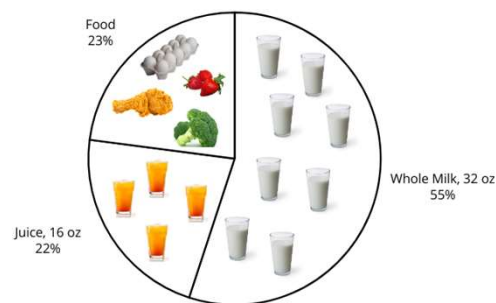
17

WHAT and WHEN Timing (and Amounts) of Liquids

Recommended Toddler Diet



Drink Heavy Toddler Diet



IOWA









The Role of WIC in Children with Autism: How Can We Help?

18

GI problems? Consider milk alternates

- Remember up to 90% may have GI problems
- Family history
- Difference between lactose and protein intolerance
- How to best use WIC benefits!

ANIMAL VS. PLANT-BASED MILK FOR KIDS

Cow	Goat	Pea	Soy
			
8 g Protein 8 g Fat	9 g Protein 10 g Fat	8 g Protein 4.5 g Fat	7 g Protein 4.5 g Fat
Hemp	Oat	Almond	Rice
			
5 g Protein 7 g Fat	3 g Protein 5 g Fat	1 g Protein 3 g Fat	<1 g Protein 2 g Fat

IOWA

The Role of WIC in Children with Autism: How Can We Help?

19

Discuss Variety in New Ways

What you see:



@autismdietitian

What your child sees:



@autismdietitian

What I see: (as a pediatric & autism dietitian)



@autismdietitian

"variety" might look different than you expect



feedingpickyeaters

Full for minutes... Full for hours...



-Wants a snack 15 minutes later
-May continue picky eating

-Fewer snack requests
-May reduce picky eating

IOWA

The Role of WIC in Children with Autism: How Can We Help?

20

What can the WIC RD do? SUMMARY

- Reassure Growth
- Promote Importance of Structure
- Look for gaps or boulders in the diet
- Offer Sensory information/perspective
- Give the Autism speaks handout
- Make or encourage outside referrals:
 - AEA
 - ABA
 - Outpatient Therapies
 - CHSC
 - Medical (GI, allergy, sleep)



IOWA

The Role of WIC in Children with Autism: How Can We Help?

21

Autism Feeding Specialist
VALORI NIEGER, MS, BCBA

Record all of the foods your child eats MOST of the time in the box below:

MY CHILD'S PREFERRED FOODS

Organize your child's preferred foods listed above into the following food groups:

PROTEINS STARCHES FRUITS & VEG

Create a list of foods you wish your child would eat:

MY WISH LIST

5 Food Changes to Improve Flexibility

PREFERRED FOOD:

☐ **CHANGE THE SHAPE**
Use cookie cutters or a knife to make the food look different.

☐ **CHANGE THE DELIVERY**
Serve the food on a different plate, with a new utensil, or use another preferred food as a utensil.

☐ **CHANGE THE BRAND**
Try the same food, but in the store-brand or other alternative.

☐ **CHANGE THE FLAVOR**
Feed a preferred food in a new flavor.

☐ **ADD A HINT OF DIFFERENCE**
Add a hint of something new by using a sprinkle of pepper, cinnamon, or chile seeds. Stir in nut butter or strawberry sauce.

Resources: Providers

- Autism Feeding Specialist:
<https://www.autismfeedingspecialist.com/st-art-here>
- The Get Permission Approach:
<https://www.getpermissionapproach.com/>
- SOS (Sequential Oral Sensory) Systematic desensitization and sequence by exposure to food properties through exploring and learning:
<https://sosapproachtofeeding.com/parent-workshop-when-children-wont-eat>
- Feeding Matters:
<https://www.feedingmatters.org/>
- Your Kids Table:
<https://yourkidstable.com/blog/>

IOWA

The Role of WIC in Children with Autism: How Can We Help?

22

Resources - Families

- Yummy Toddler Food:
<https://www.yummytoddlerfood.com/about/>
- Instagram:
 - Kids Eat in Color:
<https://www.instagram.com/kids.eat.in.color/>
 - Feeding Littles:
<https://www.instagram.com/feedinglittles/>
 - Solid Starts:
<https://www.instagram.com/solidstarts/?hl=en>
 - My Munch Bug:
https://www.instagram.com/mymunchbug_melaniepotock/
 - Feeding Picky Eaters:
<https://www.instagram.com/feedingpickyeaters/>

things that helped real (very) picky eaters try new foods

TRY THESE TO REDUCE & PREVENT PICKY EATING



GETTING IN THE KITCHEN



PLAYING W/ TOYS & REAL FOOD



READING FOOD BOOKS



PLANTING A GARDEN



EXPERIMENTS W/ FOOD



GROCERY SHOPPING

@feedingpickyeaters

IOWA

The Role of WIC in Children with Autism: How Can We Help?

23

References

- Al-Beltagi, M. (2024). Nutritional management and autism spectrum disorder: A systematic review. *World Journal of Clinical Pediatrics*, 13(4), 99649. <https://doi.org/10.5409/wjcp.v13.i4.99649>
- Aziz-Zadeh, L., Ringold, S. M., Jayashankar, A., ... (2025). Relationships between brain activity, tryptophan-related gut metabolites, and autism symptomatology. *Nature Communications*, 16, 3465. <https://doi.org/10.1038/s41467-025-58459-1>
- Evans, E. W., Must, A., Anderson, S. E., et al. (2012). Dietary patterns and body mass index in children with autism and typically developing children. *Research in Autism Spectrum Disorders*, 6(1), 399–405. <https://doi.org/10.1016/j.rasd.2011.06.018>
- Hyman, S. L., Stewart, P. A., Schmidt, B., et al. (2012). Nutrient intake from food in children with autism. *Pediatrics*, 130(Suppl. 2), S145–S153. <https://doi.org/10.1542/peds.2012-0900L>
- Ibrahim, S. H., Voigt, R. G., Katusic, S. K., Weaver, A. L., & Barbaresi, W. J. (2009). Incidence of gastrointestinal symptoms in children with autism: A population-based study. *Pediatrics*, 124(2), 680–686. <https://doi.org/10.1542/peds.2008-2933>
- Ledford, J. R., & Gast, D. L. (2006). Feeding problems in children with autism spectrum disorders: A review. *Focus on Autism and Other Developmental Disabilities*, 21(3), 153–166. <https://doi.org/10.1177/10883576060210030401>
- Marinov, D., Chamova, R., & Pancheva, R. (2024). Micronutrient deficiencies in children with autism spectrum disorders compared to typically developing children – A scoping review. *Research in Autism Spectrum Disorders*, 114, Article 102396. <https://doi.org/10.1016/j.rasd.2024.102396>
- Mayes, S. D., & Zickgraf, H. (2019). Atypical eating behaviors in children and adolescents with autism, ADHD, other disorders, and typical development. *Research in Autism Spectrum Disorders*, 64, 76–83. <https://doi.org/10.1016/j.rasd.2019.04.002>
- McElhanon, B. O., McCracken, C., Karpen, S., & Sharp, W. G. (2014). Gastrointestinal symptoms in autism spectrum disorder: A meta-analysis. *Pediatrics*, 133(5), 872–883. <https://doi.org/10.1542/peds.2013-3995>
- Stewart, P. A., Hyman, S. L., Schmidt, B. L., et al. (2015). Dietary supplementation in children with autism spectrum disorders: Common, insufficient, and excessive. *Journal of the Academy of Nutrition and Dietetics*, 115(8), 1237–1248. <https://doi.org/10.1016/j.jand.2015.01.002>
- Vuong, H. E., & Hsiao, E. Y. (2017). Emerging roles for the gut microbiome in autism spectrum disorder. *Biological Psychiatry*, 81(5), 411–423. <https://doi.org/10.1016/j.biopsych.2016.08.024>
- Zimmer, M. H., Hart, L. C., Manning-Courtney, P., Murray, D. S., Bing, N. M., & Summer, S. (2012). Food variety as a predictor of nutritional status among children with autism. *Journal of Autism and Developmental Disorders*, 42(4), 549–556. <https://doi.org/10.1007/s10803-011-1268-z>

IOWA

The Role of WIC in Children with Autism: How Can We Help?

24

IOWA

The Role of WIC in Children with Autism: How Can We Help?

Questions?



Steph Brimeyer
Stephany-Brimeyer@uiowa.edu

Jody Kealey
Jody-Kealey@uiowa.edu



25

IOWA

26