

From Flight to Bite:

A Practical Guide to Intervening with Food Sensitivity Associated with
Autism Spectrum Disorder

Superheroes Social Skills Training, Rethink Autism Internet Intervention, Parent Training,
Evidence-Based Practices, Classroom Training, Functional Behavior Assessment: An Autism
Spectrum Disorder, Evidence-Based Practices Training Track for School Psychologists

US Office of Education 84.325K

H325K12306

Introduction

The food sensitivities that some children with autism spectrum disorders (ASD) demonstrate are an incredibly inconvenient characteristic affecting daily life for the individuals with ASD and their families. Along with being restricted in the home during meal times, eating out becomes almost impossible, and school lunches must be carefully planned. The nutritional deficits that some children may experience because of their picky habits are also detrimental to the child's health and functioning.

Definition

From Flight to Bite is a practical guide to decreasing food sensitivities for individuals with Autism Spectrum Disorders. The guide provides a general progression of steps for introducing new foods into

your child's diet, as well as troubleshooting ideas for your pickiest of eaters.

Target Population

Food selectivity restricts the diets of 46 to 89% of children with Autism Spectrum Disorder, a number 5 times greater than that seen in your typically developing little pals (Ledford & Gast, 2006). Because of this huge number, interventions specifically tailored to better feed our buddies with ASD are sought after. From Flight to Bite addresses those difficulties that stem from pure food selectivity; the intervention does not address medical problems associated with feeding problems in ASD such as delay in chewing development, gastrointestinal issues, or oral motor delays.

Rationale: What's the dish?

The goal for this guide is to help you go from flight to bite, and eventually even swallow, with as many food items as you and your child can stomach. Individuals with food sensitivities typically have aversions to foods with stronger flavors and more diverse textures; which just happen to be more characteristic of fruits and vegetables than, say, bread.

From Flight to Bite walks you through the necessary baby steps to minimize the food fight that is so often experienced in this process. Many children with autism have sincere and profound aversion to different tastes, textures of foods, and smells. Some children may even dislike something simply because it is not the thing they prefer very most. On the extreme end, some textures and flavors have true physiological effects on children,

sometimes causing involuntary gagging reflexes. Other children may experience an uncontrollable rigidity towards not eating things, even though a physiological reflex may not be present. In each case, special care should be employed in the introduction of foods, as these aversions are most frequently more than in compliant behavior, they are true sensitivities that the individual him or herself can often not explain.

Evidence Base

Shaping, or successive approximations to a desired behavior, is a successful strategy for behavior change and teaching new skills or habits (Huitt, 1994). Shaping in this way can be done in teaching children with autism to try new foods, and to even eat and enjoy them. As the degree of aversion that children may

feel towards specific foods certainly varies, the shaping program that will be employed in each case will be individuated; however, the philosophy and progression of steps is the same.

Five specific stages of sensory development for eating have been identified as acceptance, touch, smell, taste, and eating (Ernsperger & Stegen-Hanson, 2004). From Flight to Bite follows this succession in order to decrease anxiety associated with food aversion.

Systematic desensitization is an evidence-based intervention for fears and phobias that follows a similar progression (Wolpe, 1990). First, an anxiety hierarchy is created with items that provoke less and increasingly more anxiety for the individual. Next, the individual is taught relaxation techniques that are incongruent with feelings of anxiety.

At this point, an individual is instructed to engage in the relaxation technique while an item or event of “low” anxiety is introduced. As desensitization occurs, the individual moves up the anxiety hierarchy to conquer their fears. Similarly, a carefree game approach is used in From Flight to Bite to increasingly expose children to foods that arouse their anxiety.

Materials Needed

1. Food Assessment (Appendix A)
2. Preferred foods
3. Non preferred foods
4. Successive Steps Worksheet (Appendix B)
5. “Get to know you” Food Card Game (Appendix C)

Steps to Implement

1. To get started it is insightful to have an overall idea of the types of foods your child despises. The Food Assessment (Appendix A) breaks these sensitivities down into common areas of food-avoidance for children with ASD. Knowing if the aversion is due to the taste, smell, appearance or texture could inform how you proceed in your new food introductions.

2. Also, as previously noted, if the feeding problems your child experiences are related to other medical concerns such as oral motor delays, gag reflex, weak muscles, and delayed chewing, then this intervention alone will not be of benefit to your child.

3. Begin a conversation with your child about food, how difficult it is to try new things, and how everyone has things they like and don't like.

Then, continue to explain that the two (or more) of you are going to start a "Get to Know You" game with food. Emphasize that it is just a game, but a game in which no one loses.

4. Ensure that your child is hungry at meal time or during a snack time that you wish to begin the intervention.

5. Allow your child some control and input in the preferred foods that are required for the activity. Also, if your child is optimistic about the game, they may also want some say in which new foods he/she will get to know first!

6. Using the steps laid out in the "Hello, Food. Nice to meet you," worksheet (Appendix B) walk through the process of getting to know food with a food item that your child already enjoys.

7. Next, introduce a non preferred food item to your child. To begin, one may need to probe the child to assess for comfort level and where the intervention may start. Perhaps a child is fine holding the undesirable food in their own hand, other children may reject even this contact with the food item. Looking at the item for a set amount of time (5 seconds) may be an appropriate starting point for a child that refuses to touch the item. From here, one must move intentionally and patiently through the steps, adjusting for comfort levels and signs of distress.

8. As progress is made, praise your child for trying new things and being a flexible thinker. Continue to move up the approximation ladder from touching the food, smelling the food, holding the food to one's lips, holding the food to one's teeth, placing

the food in one's mouth, and eventually, swallowing the food completely.

9. Get Creative!

Disobey what your parents always told you and "play" with your food! Help ease the pressure for your child by introducing new foods in a carefree manner. This can reduce the stress associated with feeding problems for everyone involved by making food fun, not a fear or fight.

Play "Get to know you" games with different foods. Urge your child to introduce himself/herself while gradually working through the successive approximations to eating. One fun way to turn this into a game the whole family can play is by making it into a card game (Appendix C). You can prepare an assortment of preferred and nonpreferred foods, or simply casually pull the cards out at a

prepared mealtime. Cut the “touch, smell, kiss, lick, bite, and swallow” cards out and place them face down in a pile. Everyone takes turns drawing a card and “getting to know” the food of choice in the way the card identifies.

Troubleshooting and Cautions

The initial intensity of distaste for the food item will determine how delicately one will begin the shaping of new eating patterns. Of course, with more distaste and rigidity, more caution will be used to begin with the least threatening and invasive introduction of new foods. A critical factor to remember in the shaping of behavior is that no successive approximation towards the final goal is too small. For children with severe aversion to specific foods, gentle, controlled, and very slight steps need

to be taken. At times, progress may seem miniscule and almost silly, as in moving from touching a food item to the lips of a child and progressing to touching the item to their teeth. This is indeed a step towards the goal and should be viewed and reinforced as such.

Special considerations:

Although special diets are not recommended for standard treatment, 23-50% of children with ASD are reportedly on exclusionary diets (Sharp, Berry, McCracken, Nuhu, Marvel, Saulnier, Klin, Jones, & Jaquess, 2013). If this is the case for your child, pay special attention to which foods are most important to introduce to your child to achieve a well-balanced diet that you are comfortable with.

References

- Ernsperger, L., & Stegen-Hanson, T. (2004). Just take a bite: Easy, effective answers to food aversions and eating challenges. Arlington, TX: Future Horizons.
- Huitt, W. (1994). Principles for using behavior modification. *Educational Psychology Interactive*. Valdosta, GA: Valdosta State University. Retrieved [December 19, 2013], from <http://www.edpsycinteractive.org/topics/behavior/behmod.html>
- 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*, 153–166.
- Sharp, W. G., Berry, R. C., McCracken, C., Nuhu, N. N., Marvel, E., Saulnier, C. A., Klin, A., Jones, W., & Jaquess, D. L. (2013). Feeding problems and nutrient intake in children with autism spectrum disorders: A meta-analysis and comprehensive review of the literature. *Journal of Autism and Developmental Disorders, 43*, 2159-2173.
- Twachtman-Reilly, J., Amaral, S. C., Zebrowski, P.P. (2008). Addressing feeding disorders in children on the autism spectrum in school-based settings: Physiological and behavioral issues. *Language, Speech, and Hearing Services in Schools, 39*, 261-272.
- Wolpe, J. (1990). *The Practice of Behavior Therapy*. Tarrytown, NY: Pergamon Press.

Appendix A

Food Assessment
Areas of Potential Food Sensitivity



1. Taste	Safe Foods	Offenders!	Specific Food Items:
a.) Sweet			
b.) Sour			
c.) Bitter			
d.) Salty			
e.) Umami			
f.) Spicy			
2. Smell	Safe Foods	Offenders!	Specific Food Items:
a.) Pungent			
b.) Spice			
c.) Acidity			
d.) Vinegar			
e.) Rotten			
f.) Mint			
g.) Other			
3. Visual	Safe Foods	Offenders!	Specific Food Items:
a.) Color			
b.) Shape			
c.) Brand			
d.) Packaging			
e.) Other			
4. Texture	Safe Foods	Offenders!	Specific Food Items:

a.) Soft			
b.) Smooth			
c.) Mushy			
d.) Slimy			
e.) Rubbery			
f.) Sticky			
g.) Chewy			
h.) Gritty			
i.) Crispy			
j.) Crunchy			
k.) Hard			
l.) Other			
5. Temperature	Safe Foods	Offenders!	Specific Food Items:
a.) Hot			
b.) Room Temp.			
c.) Cold			

Appendix B

"Hello, food. Nice to meet you!"

Touch



Smell



Kiss



Lick



Bite



Swallow!



©Lal Perera * illustrationsOf.com/75728

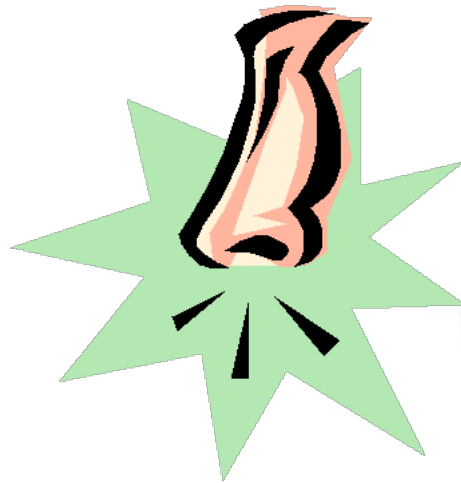
"Goodbye, food. Nice to EAT you!"

Food Desensitization Game Flashcards

Touch



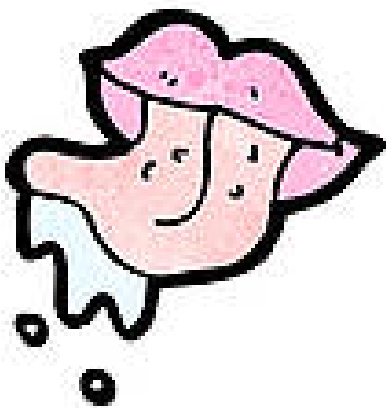
Smell



Kiss



Lick



Bite



Swallow

