Techniques to Expand Food Variety for Children with ASD

Webinar



UNIVERSITY OF LOUISVILLE®

AUTISM CENTER AT KOSAIR CHARITIES

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Objectives

- Understand common issues of feeding problems for children with autism
- When to seek professional help for your child
- What strategies can you do at home to expand food variety

Defining Feeding Disorder

Feeding Disorders

Variations in ingestive behavior that are sufficiently divergent from the norm to result in personal or familial distress, social or developmental risk, or negative health consequences.

(Kedesdy & Budd, 2001)

Symptoms of Feeding Disorders

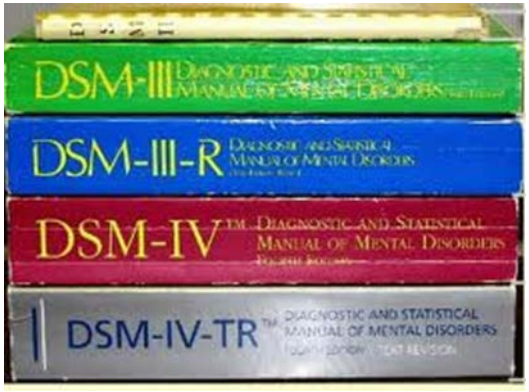
- Limited food selection – less than *20* different foods, limited food groups
- Averse reaction to new foods
- Feeding skills inconsistent with child's developmental age
- Food jags

Food Jags

- Insistence on eating the same foods in the same manner over long periods of time
- Child will eventually tire of the food and not replace it. Food variety increasingly narrows

DSM-IVTR Feeding Disorder definition

- Persistent failure to eat adequately as reflected in failure to gain weight or weight loss for greater than 1 month
  - Not GI or general medical condition
  - Not accounted by mental disorder such as rumination
  - Not lack of food in the home
  - Onset before age 6



DSM-5 Proposed definition (2013)

- Avoidant/Restrictive Food Intake Disorder
  - Eating or feeding disturbance (including but not limited to apparent lack of interest in eating or food avoidance based on sensory characteristics of food; or concern about aversive consequences of eating) as manifested by persistent failure to meet appropriate nutritional and/or energy needs associated with….

DSM-5…

- Significant weight loss
- Significant nutritional deficiency
- Dependence on enteral feeding or nutritional supplements
- Marked interference with psychosocial functioning

Up to 25% of typical children and up to 80% of children with developmental disabilities have feeding disorders.

(Manikam & Perman, 2000)

Feeding Obstacles for Children with Autism

- Social interaction surrounding food
- Repetitive patterns in food preferences
- Opportunities for varied food experiences
- Communication about food
  - Hunger and satiety
  - Food preferences

Symptoms of feeding disorders in children with *autism*

- Limited food selection (57%*)
- Limited *food groups (72%*)*
- Averse reaction to *new foods*
- Food *jags*
- Feeding *skills* inconsistent with child's developmental age (23.2% have oral motor problems*)

*percentages from parent report of 175 children with autism and feeding problems. Schreck, & Williams 2005

Problem Eating Behaviors

- Trying new foods (69%)
- Taking medicine (62%)
- Eating new foods (60%)
- Mouthing objects (56%)
- Rituals surrounding (46%)
- Insisting on routine (44%)

(Williams, Dalrymple & Neal 2000)

Review of studies has shown that between 46% and 89% of children with autism spectrum disorders have a feeding disorder.

Ledford & Gast 2006

Causes of Feeding Disorders

- Medical concerns
- Oral motor issues
- Sensory differences
- Behavioral factors

Medical Concerns

- Pain with feeding
- Reflux
- Early fullness
- Diarrhea
- Constipation

When to see the doctor

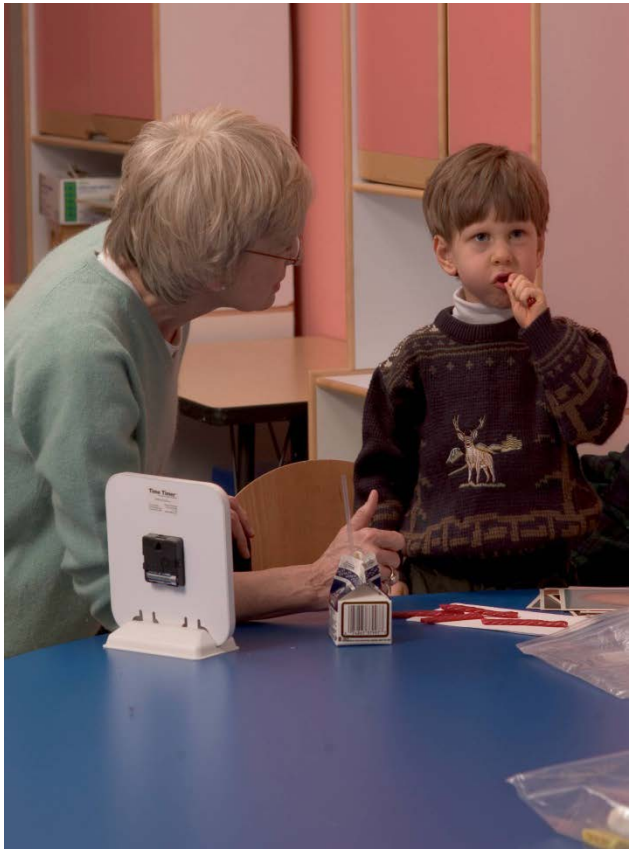
- History of or current reflux
- Complaints of pain with eating
- When eating gets full too quickly
- Vomiting
- Anemia
- Bad breath
- Pain or strain with bowel movement
- Constipation
- Diarrhea
- Frequent bowel accidents
- Poor weight gain or weight loss

Symptoms of oral motor deficits

- Long feeding times (30 min+)
- Difficulty chewing
- Food stuck in palate
- Multiple/inefficient swallows
- Wet Sounds
- Difficulty managing mixed food textures

When to see a speech therapist

- Consistent Gagging/Coughing
- History of pneumonia
- Drooling/pocketing of food/food stuck
- Multiple/inefficient swallows
- Has trouble eating tough foods



Nutritional Consequences of Feeding Disorders

- Deficit of any nutrient
- Nutritional risks
  - poor growth
  - brain development
  - metabolic processes
  - bone health
  - immune status

When to see a Registered Dietitian

- Growth or weight issues
- Very limited diets
- Medically restricted diets
  - Complex allergies
  - Food intolerances
- Risk of nutrient deficiencies
- Use of formula or tube feedings

Behavioral Issues

- Disruptive behaviors
- Anxiety
- Parent-child interaction issues
- Developmental concerns

When to see a Psychologist

- History of anxiety in family, leading to avoidance of various activities also including food
- Rigidity regarding food, obsessive/compulsive behaviors associated with eating
- Family dynamics that contribute to restricted eating patterns

When to see a Occupational Therapist

- Won’t eat certain textures of foods
- Won’t touch foods – doesn’t like hands to get dirty
- Difficulty using utensils, opening food packages, drinking from an open cup, or drinking from a straw
- Rituals surrounding or insisting on routine of mealtime impacts function (social, nutrition, self-care)

Strategies you can try at home

Choose the right strategy for your child and your family

Don’t tackle everything at once

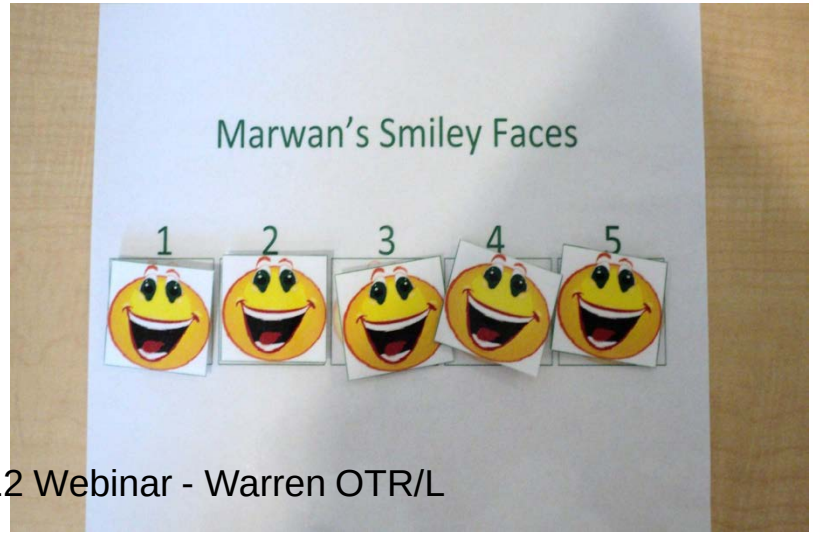
Mealtime Structure

- Dinner Table
  - Sitting
  - Food interaction
  - Modeling from others

Sitting at the table

Sitting at the table

Where to start



Food interaction

Ideas for food interaction

- Assist with grocery shopping
- Help put food away
- Cooking
- Food preparation
- Serving food
- Put non-preferred food on plate – don’t have to eat it
- Pick up food item and throw away in garbage
- Kiss the food item good bye before throwing it away
- Take bite of food item but you can spit it out

Modeling from others

Mealtime Structure

- Hunger planning
  - At least 1 1/2 to 2 hours between meals/snacks
  - Come to dinner table hungry

Time to eat!!

Feeding Intervention for Children Diagnosed with ASD

- Most research utilized behavioral strategies.
  - **differential reinforcement of alternative behaviors (DRA)**
  - **simultaneous presentation**
  - **fading**
  - behavioral momentum
  - response cost
  - sequential presentation
  - negative reinforcement

Differential Reinforcement of Alternative Behaviors (DRA)

Reward (positive reinforcement)

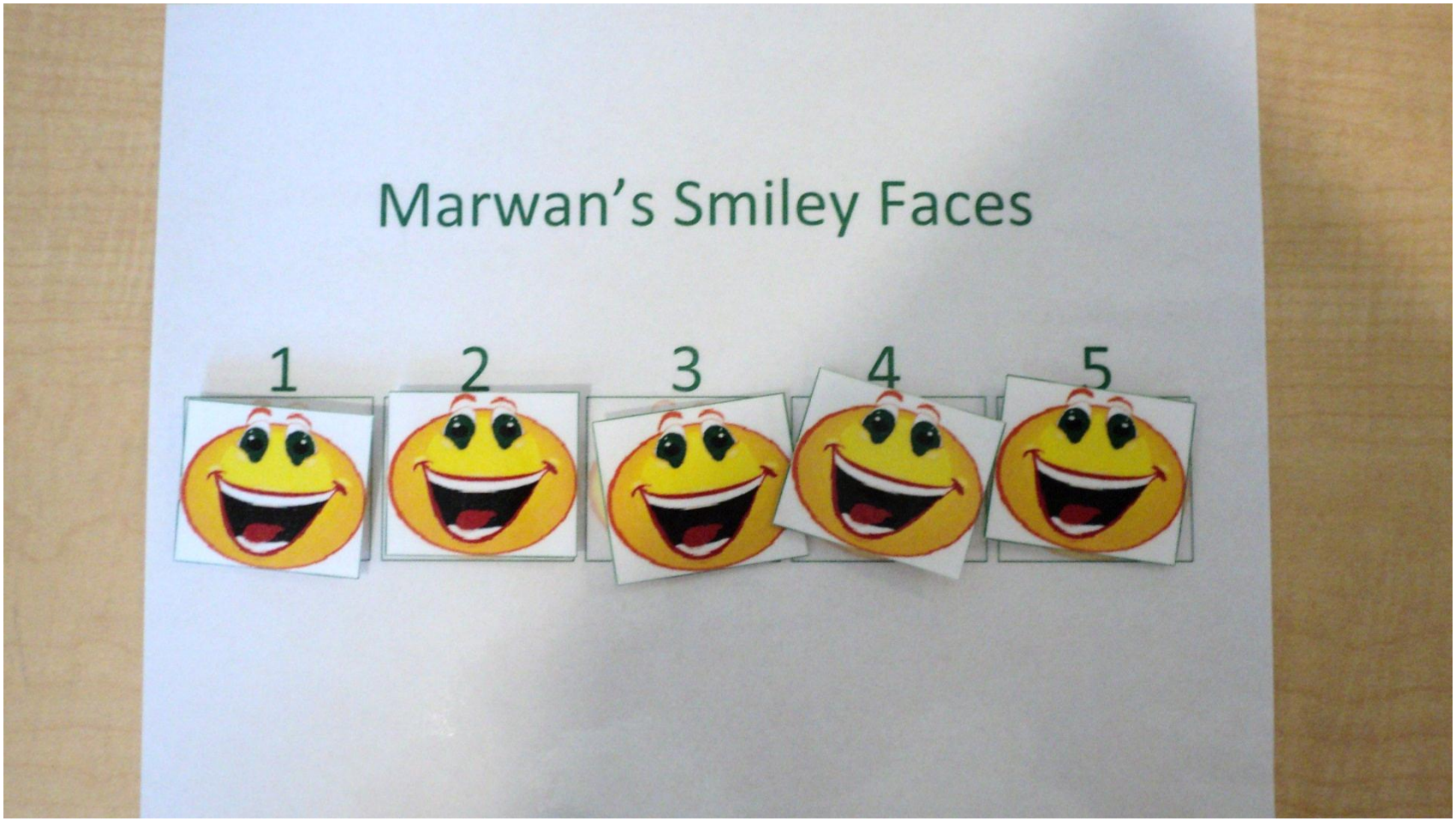
- Sitting at the table
- Having new food on their plate
- Taking a bite of the new food
- Helping prepare new food

Ignore

- Negative comments – yuck, I don't like that
- Spitting food out
- Not eating the food
- Gagging/vomiting **non-preferred** food


m&m's
MINIS
MILK CHOCOLATE
m&m's
MINIS
MILK CHOCOLATE


1


Marwan's Smiley Faces
1
2
3
4
5

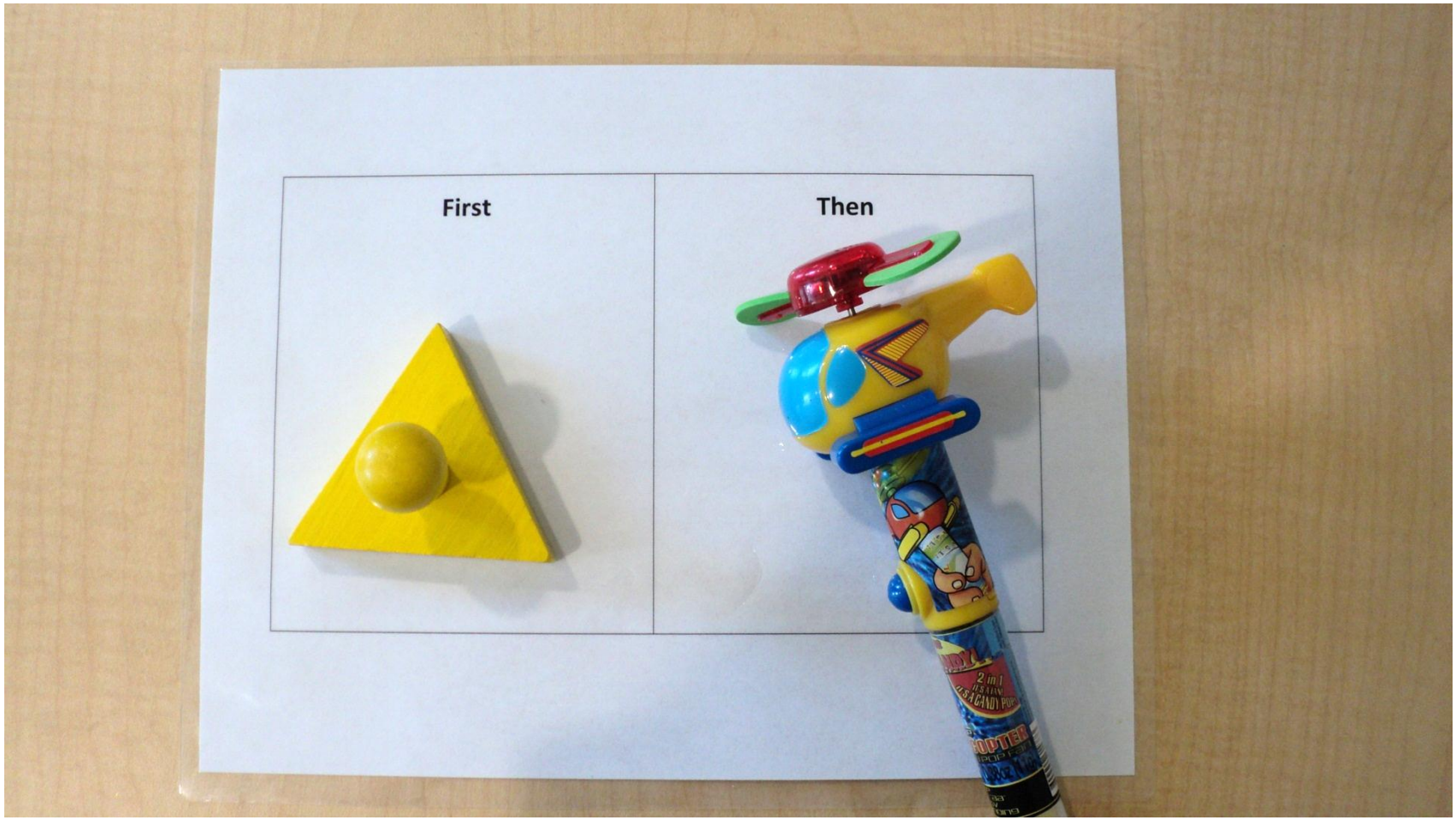
How to use reinforcer

- Make sure they want the reinforcer – may need to change it frequently
  - Reward box
    - Stickers
    - Small food items – mini m&m's, fruit chews, skittles
    - Puzzles
    - Light up toys
    - Favorite video game – 1 short turn
    - Extra tv, video game time – can earn minutes

How to use reinforcer

- Immediately
- Consistently – when learning to eat new food
- Contingently – they do not get the reward unless they demonstrate the behavior you are teaching (sitting at the table, touching food to lips, etc)

First/Then Board



First/Then Board

- First

- Then

If it doesn't work

Decrease work

- Decrease number that they have to eat
- If refuse to eat – touch lips, teeth, tongue, take bite and spit out

Increase reward

- Increase number of rewards they get – instead of 1 skittle…5 skittles
- Change the reward
- Let them pick the reward

First/Then Board

- First

- Then

Simultaneous Presentation

Pairing preferred with non-preferred

Pairing Preferred Food with Non-Preferred Food

Example: dipping cookie in applesauce, very small piece of lunch meat between 2 crackers

Do not hide it!!!

Pairing preferred with non-preferred

If it doesn’t work

- Decrease the amount of non-preferred food – start with a VERY SMALL amount
- Give them a reward for eating it

Fading

- Use this with DRA and pairing preferred with non-preferred
  - Decrease frequency of reward
    - Example: reward every bite ⇨ reward every 2 bites
  - Increase non-preferred food and decrease preferred food
    - Example: 1 cup juice with ½ teaspoon milk ⇨ 1 cup juice with 1 teaspoon milk
    - 2 ritz crackers with ½ tsp peanut butter ⇨ 2 ritz crackers with 1 tsp peanut butter

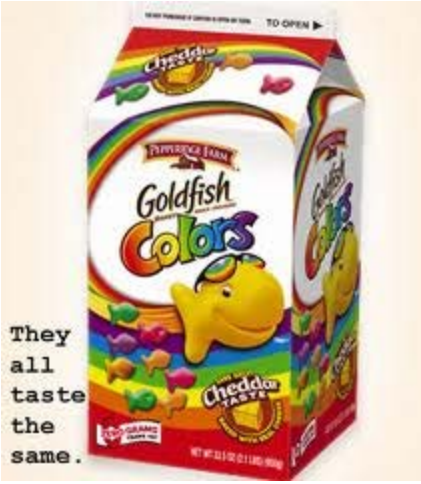
How to prevent/break food jags

- Preventing or breaking a food jag:
  - Food/meal rotation
  - Changing shape, color, taste, and finally texture

Change shape

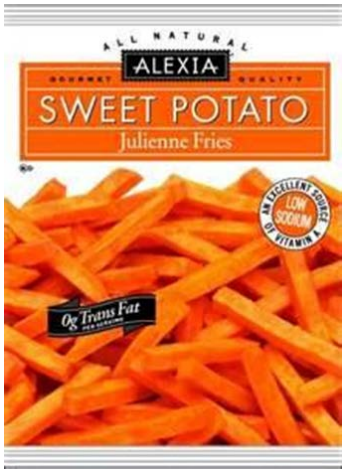
Change Shape

Change color



Change taste

Change texture



Some of our favorite foods


NEW
1 cup of FRUITS & VEGETABLES
CAPRI SUN
SUPER V
FRUIT & VEGETABLE JUICE DRINK
Good source of FIBER
Frutt Punch


APPLE & EVE
Fruitables
fruit & vegetable
Berry Berry
Tropical Orange
Strawberry Kiwi


$1 OFF
V8
V FUSION


Kellogg's
Special K
red berries


Gerber
Graduates
fruit & veggie melts
Truly Tropical Blend

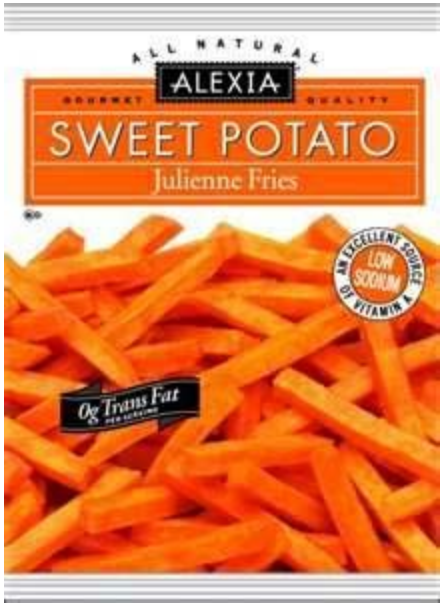

Graduates
For Toddlers
mini fruits
banana strawberry


Mango
Banana Slices


Red Cookies
Raspberries


ALL NATURAL
VEGGIE
STIX
30% LESS FAT


Gilbee
SNACK
SALAD
Snapea
Crisps
ORIGINAL
Baked


ALL NATURAL
ALEXIA
SWEET POTATO
Julienne Fries
LOW SODIUM
0g Trans Fat


Microwave Ready


TERRA.
SWEET POTATO
chips
NO SALT ADDED

Any questions?

Websites and Newsletters

Ellyn Satter Associates www.EllynSatter.com

Mealtimes www.new-vis.com

POPSICLE (Parent Organized Partnerships Supporting Infants and Children Learning to Eat) www.popsicle.org

Resources

- Satter, E. (1987). *How To Get Your Child To Eat…But Not Too Much.* Boulder, CO: Bull.

- Toomey, K. (2002). *When Children Won't Eat: The SOS Approach to Feeding.* Denver: Toomey and Associates.

- Ernsperger, L. & Stegen-Hanson, T. (2004). *Just Take A Bite.* Arlington, TX: Future Horizons.

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- Ledford, R. & Gast, G. (2001). Feeding Problems in Children with Autism Spectrum Disorders: A Review. *Focus on Autism and Other Developmental Disabilities, 21 (3),* 153-166.
- Hall, K. (2001). *Pediatric Dysphagia.* DeKalb, IL: Singular
- Manikam, R. & Perman, J. (2000). Pediatric Feeding Disorders. *Journal of Clinical Gastroenterology, 30 (1),* 34-46.
- Fishbein, M., Cox, S., Swenny, C., Mogren, C., Walbert, L., & Fraker, C. (2006). Food Chaining" A systematic approach for the treatment of children with feeding aversion. *Nutrition in Clinical Practice,* 21 (2), 182-184.

Therapy Settings

- Therapy to address feeding in school or community setting

- Intensive Feeding Therapy Program

See slides at end of presentation

Therapy services – Feeding Teams

- Cincinnati Children's Feeding Clinic
- Regional Child Development Clinic (Bowling Green)
- St. Mary's Center for Children (Evansville)
- University of Louisville Autism Center at Kosair Charities
- Weisskopf Child Evaluation Center (Louisville)

Feeding Team Evaluation

Feeding Evaluation

- Interview
- Nutritional evaluation
- Feeding observation
- Oral Structure and function evaluation
- Team planning
- Determine treatment plan

Interview

- Current Status
  - Diagnosis, Feeding Concerns
- Social History
  - Family meal pattern, feeding environment
- Medical History
  - Prenatal, perinatal, infant & childhood
  - Sleep patterns, ear infections, allergies

Interview (continued)

- Feeding & Swallowing History

1. Medical procedures impacting oral experiences ie. Feeding tubes, assisted ventilation
2. Experiences effecting feeding patterns ie. Prolonged hospitalization, prematurity
3. Aversive behaviors associated with eating
4. Communication associated with eating

Nutritional Evaluation

- 3-Day food diary or usual daily intake
- Nutritional adequacy
- Meal pattern: grazing vs defined meals
- Hunger/Satiety cycle
- Feeding Environment
- Self-feeding skills and opportunities
- Food allergies and intolerances
- Bowel and bladder function

Feeding Observation

- Motor Skills – postural stability, muscle tone, strength, endurance, range of motion and coordination of both oral area and whole body
- Child/parent interaction
- Self-care skills – use of utensils, opening containers, washing hands
- Sensory processing skills – food preferences, touching/smelling/looking at food
- Ingestion of food in a coordinated efficient manner

Oral Structure and Function Evaluation

- Size and symmetry of oral structures
- Strength and tonicity of structures
- Range and coordination of oral movements

Team Planning

- Based on findings of all team members
- Further testing
- Home environment
- Nutritional adequacy
- Food variety
- Diffuse stress at mealtime
- Therapy

Making a Treatment Plan

- Family/team meeting
  - Review findings
  - Review treatment plan
    - Family input
    - Follow-up discussion