

The Other Side of the Spoon

**Behavioral Feeding
Interventions
for Restricted Intake**

SMAC

March 7, 2020

**Dr. Gretchen L. Jefferson
Senior Behavior Analyst
Woodfords Family Services
gjefferson@woodfords.org**

Neither the BACB or Woodfords Family Services is responsible for or endorses the content of this presentation. This training will not result in any state or national certification relevant to the conduct of behavioral feeding assessment or intervention or constitute training sufficient to implement these procedures without professional guidance.

DISCLAIMER

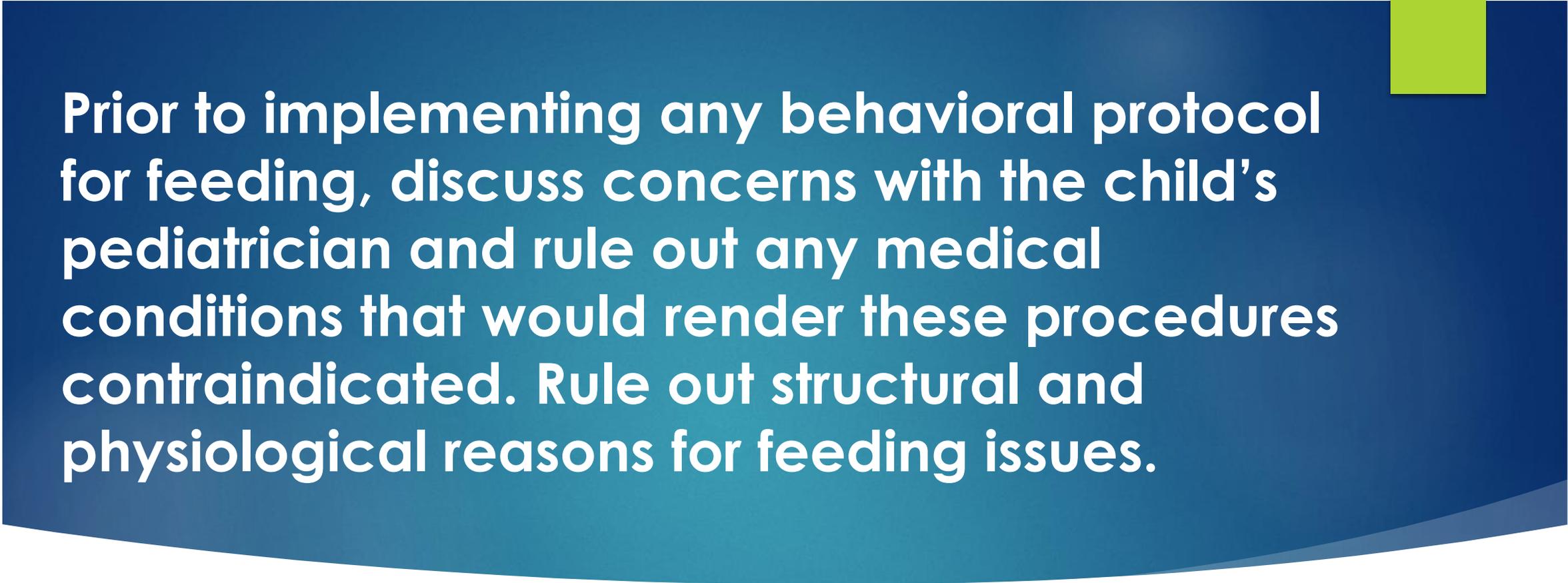
Intervention Phases

▶ **Pre-Intervention**

- ▶ Wellness Check
- ▶ Problem Identification
- ▶ FBA
- ▶ Preference Assessments

▶ **Intervention**

▶ **Next goal!**



Prior to implementing any behavioral protocol for feeding, discuss concerns with the child's pediatrician and rule out any medical conditions that would render these procedures contraindicated. Rule out structural and physiological reasons for feeding issues.

Pre-Intervention

Packet Time:

Compilation of
pre-intervention
and intervention
protocols.

Let's take a look!

PRE-INTERVENTION

1. SET UP
2. DEFINITIONS
3. GENERAL PROCEDURES
4. DATA COLLECTION
5. PREFERENCE ASSESSMENTS



Types of Feeding Problems

Identifying the Problem

Common Intake Concerns

- ▶ **Acceptance**

Refuses to take presented food/drink

- ▶ **Volume**

Does not take in enough to sustain healthy weight without supplemental feeding (i.e., tube feeding, TPN).

- ▶ **Selectivity (see next)**

- ▶ **Independence (see next)**

Selectivity

- ▶ **Type**
 - ▶ Carbs, fruits, proteins
- ▶ **Texture**
 - ▶ Liquid, baby food, puree, etc.
- ▶ **Color**
 - ▶ White food only please
- ▶ **Brand**
 - ▶ Pepsi, Goldfish, Chili's fries, etc.
- ▶ **Preparation and/or presentation method**
 - ▶ Boiled, on my Cars plate with my Frozen 2 spoon

Independence

▶ **Relies on others to:**

Prepare food on the utensil

Bring food to the mouth

Place in the mouth, and/or

Swallow

AND it is developmentally appropriate

AND no physical limitations prevent independence

Complete Refusal

- ▶ **No foods or liquids taken by mouth**
- ▶ **Usually supported by tube feeding of some type (nasogastric, gastrostomy, TPN) or failing to thrive.**
- ▶ **Work closely with pediatrician**
- ▶ **Behavioral strategies can support process of re-establishing oral intake**

Concerns from the Group

- ▶ **What feeding problems are you seeing, treating?**
- ▶ **Take out/pull up your Feeding Survey and Intervention Planning worksheet**
- ▶ **Turn to your neighbor and complete the yellow/upper section of your worksheet**
- ▶ **Divulge only that information that you feel comfortable sharing – no pressure**

Feeding Survey and Intervention Planning Worksheet - SMAC 3/7/20

Identify the Problem (circle or X)									
I am working on this feeding problem (circle/X)?	Acceptance		Selectivity		Volume		Texture Advance		¹ Improve mealtime behavior
Food or Fluids or Both (circle/X)?	Food	Fluids	Food	Fluids	Food	Fluids	Food	Fluids	
¹What mealtime behavior is a problem?									
My feeding/drinking or mealtime goal is: (e.g., eat/drink anything; eat/drink a wider variety; eat/drink more volume for weight gain; moving to a higher eating/drinking texture; happy meals)									
What have you tried already to meet this goal? (e.g., consultation/treatment with speech, occupational therapy, BCBA, medical professionals; medication, homeopathy; other interventions)									
Intervention Process and Selection (circle or X)									
What is your starting point?	Readiness	Schedule	Feeding Area	Preference Assessment					
				<i>Food</i>	<i>General</i>				
What skill are you going to start with?	Acceptance	Expulsion	Mouth Clean	Discomfort Response	Interfering behavior				
What intervention looks like a good start?	Desensitization	Escape Extinction	Food Blending	Meal of Fortune					
	Faded Textures		Non-preferred/Preferred Presentation						
	<i>Food</i>	<i>Liquid</i>	<i>Simultaneous</i>		<i>Sequential</i>				

Feeding Survey and Intervention Planning Worksheet - SMAC 3/7/20

Identify the Problem (circle or X)									
I am working on this feeding problem (circle/X)?	Acceptance		Selectivity		Volume		Texture Advance		¹ Improve mealtime behavior
Food or Fluids or Both (circle/X)?	Food	Fluids	Food	Fluids	Food	Fluids	Food	Fluids	
¹What mealtime behavior is a problem?									
My feeding/drinking or mealtime goal is: (e.g., eat/drink anything; eat/drink a wider variety; eat/drink more volume for weight gain; moving to a higher eating/drinking texture; happy meals)									
What have you tried already to meet this goal? (e.g., consultation/treatment with speech, occupational therapy, BCBA, medical professionals; medication, homeopathy; other interventions)									

Somebody share some results please!

How do Feeding Problems Develop?



Precursors to Feeding Issues

- ▶ **Developmental patterns**

Breathing, suck, swallow, phasic bite

- ▶ **Medical issues**

GI and related issues, chronic illness

- ▶ **Structure**

Meals, snacks, fluid offered at consistent times

- ▶ **Food availability**

Medical Issues Impact Feeding

▶ **Esophageal health – the ins**

Gastro-esophageal reflux: Present in 56% of children with neurodevelopmental disabilities who presented with feeding problems (Schwarz et al., 2001)

Ulcers secondary to GER, Atresia

▶ **Intestinal, bowel and stomach health – the outs**

Constipation, shortened intestinal tract, ulcers, necrosis, general “environment”

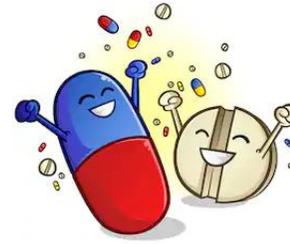
Medical Issues Impact Feeding

- ▶ **History of and current tube feeding** (practice, volume)
- ▶ **Aspiration, history of intubation**
Oral intake problematic (texture), comfort, taste preferences
- ▶ **Chronic illness**
- ▶ **Volume/Capacity** (delayed gastric emptying)
- ▶ **Allergies** (breathing impacted)

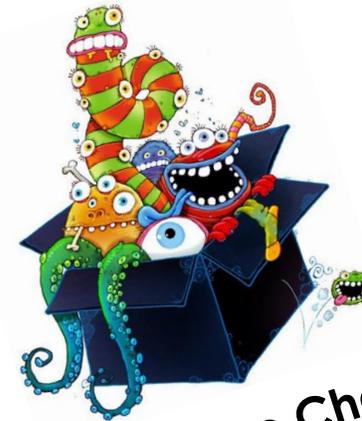
Universal Pre-Interventions

*Antecedent
Interventions*

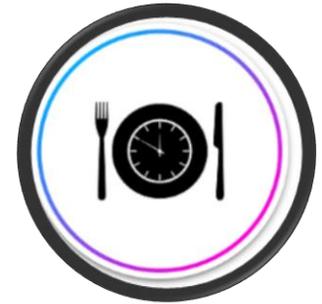
“Must Dos”



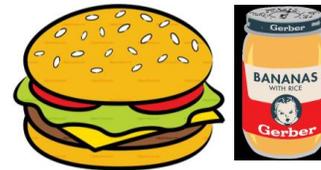
Medication
as Needed



Control the Chaos



Schedule



Food Choices



Correct Seating

Medical Management



Medication
as Needed

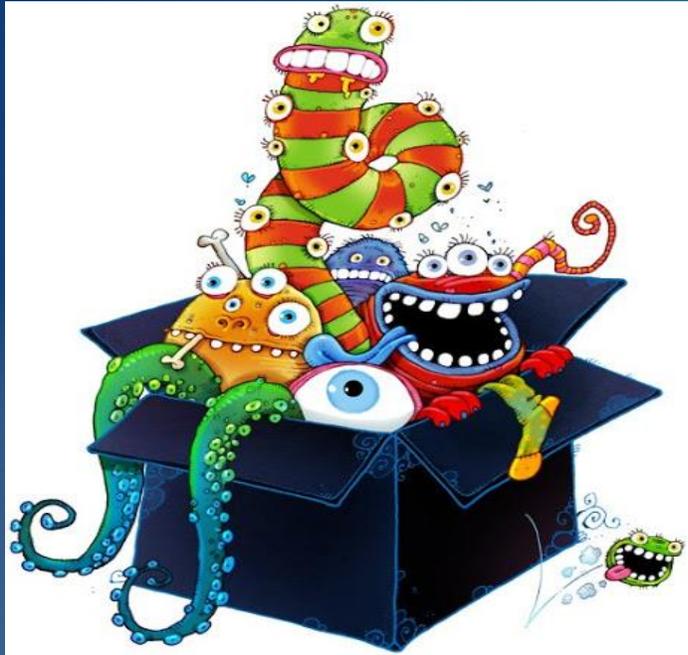
- ▶ **Ensure that medical conditions are well-managed**
Medication, therapies
Optimal physical positioning
- ▶ **Establish “reasonable” volumes and textures with pediatrician, therapists as well as appropriate materials**
- ▶ **The idea is to remove pain and discomfort from the equation BEFORE you start a feeding intervention**



Schedule

- ▶ **Establishes routine**
- ▶ **Helps consistently establish hunger and thirst**
- ▶ **Ensures you aren't attempting meals and snacks immediately after or during preferred activities**
- ▶ **Give yourself the gift of time so you don't become impatient during the process**

Not all meals and snacks need to be treatment, but switch up materials and seating to help the individual know things are different



Control the Chaos

▶ Before snack/meal

▶ Grazing foods, liquids put away 1-2 hours prior

(establishes desire to eat/drink)

▶ End highly preferred play 30 min prior

(prevents conflict prior)

▶ Have foods/drink and reinforcers ready

(prevents delay, helps momentum)

▶ Get happy, play

(primes for praise, prevents conflict during;
invisible transition)



Feeding Location/Seating

- ▶ **Use specialty seating as directed**
- ▶ **Individual must be seated calmly in the selected space**

If lots of tantrums or refusal have occurred in the usual spot, switch it up!
May need to do some desensitization to the space
- ▶ **If you have a runner, consider a more enclosed area**
- ▶ **If not ready for prime time with the family, have meal/snack at separate time and do Legos at table while family eats their meal**

Preferences

- ▶ Hi-P High Probability, likely to eat, drink, do
- ▶ Lo-P Low Probability, unlikely to eat, drink, do
- ▶ We need to find the Hi-P to use within meals to keep the meal going
- ▶ We need to carefully select the Lo-P that we are targeting for intake so we don't bring the meal to a grinding halt.

Reinforcement

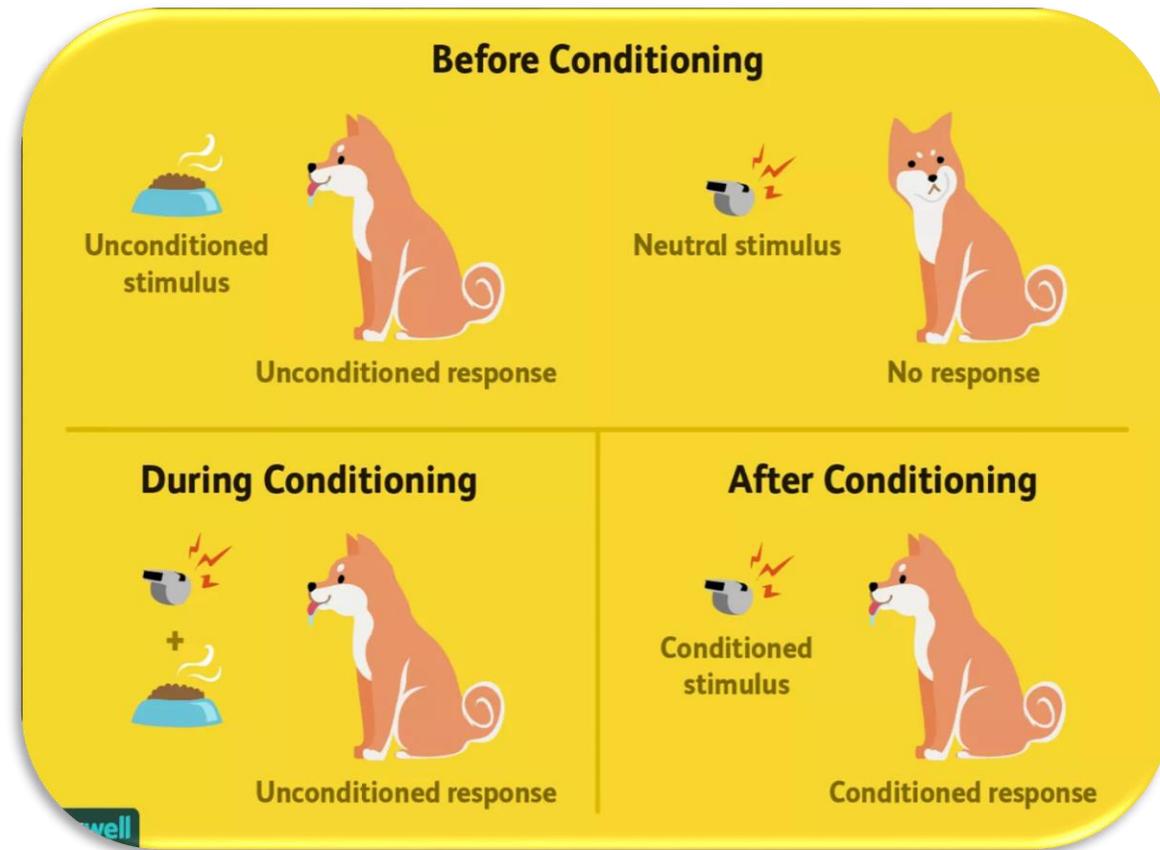


No Bootlegging AARGH!

- ▶ Some preferences are reinforcers, but not all
- ▶ Reinforcers result in increased behavior, more behavior
- ▶ Reinforcement is contingent on behavior
- ▶ When implementing feeding procedures, reinforcers are earned, not freely given.
- ▶ Reinforcers are not available at other times, only during the feeding sessions and only when criteria for earning reinforcement have been met.

Pain and Discomfort

CLASSICAL CONDITIONING



Uncoupling Intake from Discomfort

- ▶ **How did it feel while I was eating or drinking?**
- ▶ **How does it feel immediately after?**
- ▶ **Did intake result in**
 1. Some negative experiences...
 2. Bad taste/flavor/texture
 3. Pain, retching, choking, aspiration when swallowing
 4. Nausea, bowel irritation after swallowing
- ▶ **What was the contributing factor to that feeling?**



Food Selection

- ▶ **Select appropriate texture for food/drink**
- ▶ **Select high probability foods/drinks**

What is the most successful food/drink?

Ensure that highly preferred food/drink is reserved as reinforce (unless that is the only thing they eat/drink)

The World of Spoons



The World of Cups





Intervention

Feeding Protocols

“

NO PAIN...ALOTTA GAIN!

”



Your feeding/drinking intervention grail...



And we don't want your feeding sessions to look like this...

Common Intervention Goals

▶ Feeding and drinking goal sequence

1. Acceptance without interfering behaviors or discomfort
2. Mouth clean/no liquid loss without interfering behaviors or discomfort

Food Introduction Sequence

- ▶ **Food Texture Sequence**
- ▶ **Bite Size Sequence**
- ▶ **Starting point depends on what texture and bite size they eat or drink now, *comfortably*.**
- ▶ **Note.** For self-feeders who don't take in enough food, supplement their bites with intermittent *non-self-feeding* bites of easily manipulated foods.



Texture Advances	Spoon Volume Advances
1. Empty spoon	1. Empty spoon
2. Juice dipped	2. Juice dipped
3. Baby food dipped and shaken	3. Food dipped
4. Baby food dipped	4. Pea size
5. Table puree dipped	5. 2-pea size
6. Table puree dipped and shaken	6. Level
7. Minced	7. Rounded bolus
8. Chopped	
9. Mixed	

Packet Time:

**Compilation of
pre-intervention
and intervention
protocols.**

Let's take a look!

INTERVENTION

1. 8 INTERVENTION
PROTOCOLS

Desensitization

- ▶ **May be a necessary first step prior to beginning feeding sessions if there are negative experiences associated with the location at which painful, uncomfortable experiences have occurred.**
- ▶ **Re-brand the site**
- ▶ **Identify start point, end point, and steps in between**
- ▶ **You cannot rush desensitization!**

Hi-P, Lo-P, and Interspersed Bites

- ▶ **Start with Hi-P bites to get on a positive roll, gain momentum**
- ▶ **Heavily weight Hi-P bites initially**
Lots more Hi-P bites than Lo-P bites
- ▶ **Intersperse bites**
Hi-P, Hi-P, Hi-P, Lo-P
- ▶ **Modify Lo-P in important ways to make these bites more likely to be accepted.**

Escape Extinction Basics

- ▶ **Goal: Acceptance (any, new food, texture, amount)**
- ▶ **Rule: Escaping eating/drinking won't be allowed**
Bite, food, cup remains in place until accepted
Have minimal expectations
 - ▶ Start with the simplest, lowest effort possible step
 - ▶ Empty spoon, cup
- ▶ **Have astounding reinforcers ready to go!**
- ▶ **Immediately terminate session upon acceptance**

Simultaneous P/NP Food Presentation

- ▶ **Follow *Escape-Extinction* protocol**
- ▶ **Non-preferred and preferred food are presented on same spoon, food (i.e., broccoli on potato chip)**

Adjust texture and bite size to make non-preferred more approachable and palatable
- ▶ **Free access to preferred items present in meal space**

Move to contingent access if acceptance is low
- ▶ **Rotate in new non-preferred foods when acceptance is consistent**

Sequential P/NP Food Presentation

- ▶ **Same as Simultaneous Presentation except...**

- ▶ **NP and P foods are presented separately**

Adjust texture and bite size to make non-preferred more approachable and palatable

NP food presented first, *P immediately* after NP accepted

Increase latency (delay) between P food presentation

Blending

- ▶ **Escape Extinction protocol with non-contingent access to activities (contingent if refusal is high)**
- ▶ **Blend a NP food with a preferred food (90% P :10% NP)**
- ▶ **Rotate only 1 NP with preferred foods/liquids**
- ▶ **When acceptance of first blended food is strong, add second blended food**
- ▶ **When acceptance of both blended foods is strong, decrease blend in 10% increments (80% P : 20% NP....)**

Cautions

- ▶ **Simultaneous presentation and blending are not recommended when the number of foods/liquids sources are very limited.**
- ▶ **Foods/liquids currently accepted may become paired with nonpreferred foods, resulting in full refusal of all foods**
- ▶ **Use different cups, plates, containers during treatment sessions if child is highly selective of these**

Advancing Textures

▶ **Foods**

Add neutral tasting thickener incrementally when acceptance is strong and consistent

▶ **Liquids**

Increase liquids incrementally when acceptance is strong and consistent

▶ **Stop at the appropriate texture**

Consider medical/developmental issues

Meal of Fortune...America's Meal!

- ▶ 3 foods separated on plate, 2P/1NP (keep small)
- ▶ Write number of bites on the wheel spaces (keep low)
- ▶ ? on some spaces (mystery prize)
 - Given immediately if spinner lands on it (play at table)
- ▶ When bites eaten from each portion of plate, can eat anything else on plate (procedure is over) or leave table and play with reinforcer
- ▶ If bites not eaten, remain at table 5 min, no reinforcer



Date _____ Meal: B L D S1 S2 S3 S4 S5 Time Started _____ Time Ended _____

Bite #	ACCEPT (≤ 5 seconds)	DELAYED ACCEPT (> 5 seconds)	EXPEL	MOUTH CLEAN	INTERFERING BEHAVIORS	DISCOMFORT BEHAVIORS
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Acceptance: Opens mouth, allows entire bite in mouth within 5 seconds of the request to, "Open," "Take a bite."
 Expulsion: Any pea-sized amount of food outside the mouth after swallowing.
 Mouth clean: All food swallowed within 30 seconds of acceptance
 Combined Interfering Behaviors: Turns head away from spoon, pushing utensils, plate or your arms, hands, elbow during presentation.
 Signs of Discomfort: Gagging, retching, vomiting

Percent Accept _____ (accepts) ÷ _____ (bites) X 100 = _____
 Percent Delayed Accept _____ (delayed accepts) ÷ _____ (bites) X 100 = _____
 Percent Expel _____ (expels) ÷ _____ (bites) X 100 = _____
 Percent Mouth Clean _____ (mouth cleans) ÷ _____ (bites) X 100 = _____
 Percent Interfering Behaviors _____ (interfering behaviors) ÷ _____ (bites) X 100 = _____
 Percent Discomfort Behaviors _____ (discomfort behaviors) ÷ _____ (bites) X 100 = _____

Feeding Survey and Intervention Planning Worksheet - SMAC 3/7/20

Identify the Problem (circle or X)									
I am working on this feeding problem (circle/X)?	Acceptance		Selectivity		Volume		Texture Advance		¹ Improve mealtime behavior
Food or Fluids or Both (circle/X)?	Food	Fluids	Food	Fluids	Food	Fluids	Food	Fluids	
¹What mealtime behavior is a problem?									
My feeding/drinking or mealtime goal is: (e.g., eat/drink anything; eat/drink a wider variety; eat/drink more volume for weight gain; moving to a higher eating/drinking texture; happy meals)									
What have you tried already to meet this goal? (e.g., consultation/treatment with speech, occupational therapy, BCBA, medical professionals; medication, homeopathy; other interventions)									
Intervention Process and Selection (circle or X)									
What is your starting point?	Readiness	Schedule	Feeding Area	Preference Assessment					
				<i>Food</i>	<i>General</i>				
What skill are you going to start with?	Acceptance	Expulsion	Mouth Clean	Discomfort Response	Interfering behavior				
What intervention looks like a good start?	Desensitization	Escape Extinction	Food Blending	Meal of Fortune					
	Faded Textures		Non-preferred/Preferred Presentation						
	<i>Food</i>	<i>Liquid</i>	<i>Simultaneous</i>		<i>Sequential</i>				

Intervention Process and Selection (circle or X)					
What is your starting point?	Readiness	Schedule	Feeding Area	Preference Assessment	
				<i>Food</i>	<i>General</i>
What skill are you going to start with?	Acceptance	Expulsion	Mouth Clean	Discomfort Response	Interfering behavior
What intervention looks like a good start?	Desensitization	Escape Extinction	Food Blending	Meal of Fortune	
	Faded Textures		Non-preferred/Preferred Presentation		
	<i>Food</i>	<i>Liquid</i>	<i>Simultaneous</i>	<i>Sequential</i>	

Someone please share results!

“

Thank You!

”

ENJOY THE REST OF THE CONFERENCE!