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# Crumbs as a Tool in Pediatric Feeding Transitions

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## Disclosures

- Financial Disclosures: Paid presenter
- Financial Disclosure: Mealtime Notions, royalties for books and DuoSpoons
- Non-financial disclosures: Advisory Council Feeding Matters, and Board Member NOURISH.

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## Learning Outcomes

- As a result of this course, learners will be able to:
  1. Define the use of *continuum* in creating treatment strategies in feeding therapy
  2. List four benefits of the use of crumbs in feeding therapy
  3. Describe how to use crumbs in sensory feeding transitions
  4. Describe how to use crumbs in motor feeding challenges.

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## Common Pediatric Feeding Challenges

- Skill basics of sucking swallowing and chewing
- Developmental transitions
- Texture transitions
- Sensory sensitivity
- Motor challenges
- Worry
  
- Crumbs can help

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continued<sup>®</sup>

## Child success and parent success

- Child success
- Parent success
- Therapist success
- We want to celebrate the child and have them celebrate the mealtime!

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## Positive tilt

- A Positive Tilt, as described in the Get Permission Approach to Pediatric Feeding Challenges, is a coming together of parent and child whether physically and emotionally that says “Yes, I want the food”.



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## Negative tilt

- A Negative Tilt, as described in the Get Permission Approach to Pediatric Feeding Challenges, is a leaning away of child from the parent physically and emotionally says "Absolutely NOT!"



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## Get Permission Approach

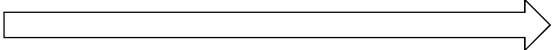
- Adult offers and the child gives permission or not.
- Look at influences on permission carefully
- When no permission, we must adapt
- If the child is resisting, we are pressuring or asking too big *an ask*.
- What do WE need to do to offer so the child is able to give permission?

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continued

## Continuum of tasks

- Continuum: Continuum is a continuous sequence in which the adjacent elements are not perceptibly different from each other, although the extremes are quite distinct. (Google Dictionary)

▪ Here  There

- (<https://www.google.com/search?q=definition+continuum&oq=definition+continuum&aqs=chrome..69i57j0l5.4755j1j7&sourceid=chrome&ie=UTF-8>)

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## Grade the ASK

- Safety ask
- Developmental ask
- Sensory ask
- Motor ask
- Emotional ask
- Independence ask

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## The Art of Crumbing

- The prescriptive use of crumbs to help children be successful in new food textures, flavors and chewing challenges.
- Support transitions in the sensory properties of the foods and the motor challenges



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## Crumb Benefits

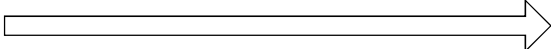
- Crumbs help the child build enjoyment while developing the confidence to work towards developmental texture acceptance and chewing.
- Sensory bridge
- Motor bridge
- Bridge to a new food group
- Reduce worry

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## Grade the Crumb (Sensory Ask)

Here  There

- Grade the sound
- Grade the visual
- Grade the flavor
- Grade the texture...a texture bridge
- Grade the amount
- Grade the dry to wet and wet to dry
- Grade the “meltability”
- Grade the lasting effect (feel and flavor)

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continued

## Sensory Properties-Crumb Rehearsals

- Reduce the worry with rehearsals
- Vision-Look from a distance
- Sound-Hear it from a distance
- Smell-Taste from a distance
- Texture Touch-Experience the texture in the hand as a preview of the texture in the mouth

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## Palm feel, crumb kisses



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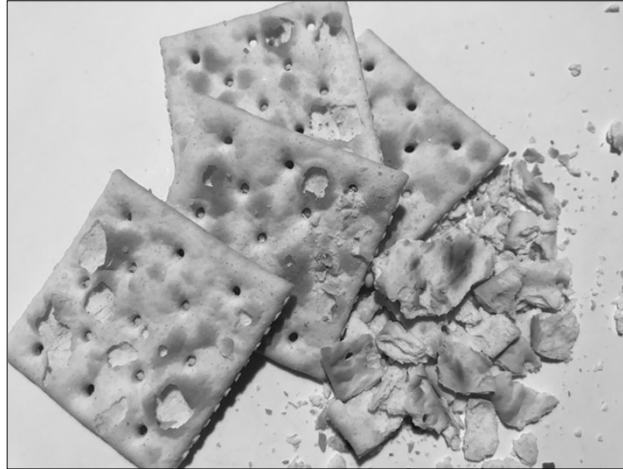
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## A closer look at textures and their sensory differences

- Textures are a roadblock for many children in developmental eating transitions
- Think of food texture words
- What are the food words we use talking about children's food?

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continued

## A closer look at textures and their sensory differences

- What are the food words we use talking about children's food?
- Puree?

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continued

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## A closer look at textures and their sensory differences

- What are the food words we use talking about children's food?
- Puree?
- Mashed?

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continued

## A closer look at textures and their sensory differences

- What are the food words we use talking about children's food?
- Puree?
- Mashed?
- Ground?

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continued

continued

## A closer look at textures and their sensory differences

- What are the food words we use talking about children's food?
- Puree?
- Mashed?
- Ground?
- Chopped?

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continued

## A closer look at textures and their sensory differences

- What are the food words we use talking about children's food?
- Puree?
- Mashed?
- Ground?
- Chopped?
- Solid...

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continued

continued

## Did you know?



Mouthfeel: How Texture Makes Taste, Ole G. Mouritsen and Klavs Stybaek (2017)

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continued

## How about these words???

- Think about the texture differences, subtleties? a continuum?
- Smooth, coarse, dry, moist, wet, solid, slippery, grainy, rubbery, viscous, thin thick, chewy, scattery, crunchy, soft, runny, crispy, hard, juicy, springy, lumpy, chunky, stiff, rough, gritty, hot/cold, lukewarm, sticky, crumbly, light, airy, meltable...

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## How about these words???

- Smooth, coarse, dry, moist, wet, solid, slippery, grainy, rubbery, viscous, thin, thick, chewy, scattery, crunchy, soft, runny, crispy, hard, juicy, springy, lumpy, chunky, stiff, rough, gritty, hot/cold, lukewarm, sticky, crumbly, light, airy, meltable...
- We need creativity in making careful changes in the sensory properties of foods.
- Crumbs can help you get there.

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## Sensory properties of crumbs

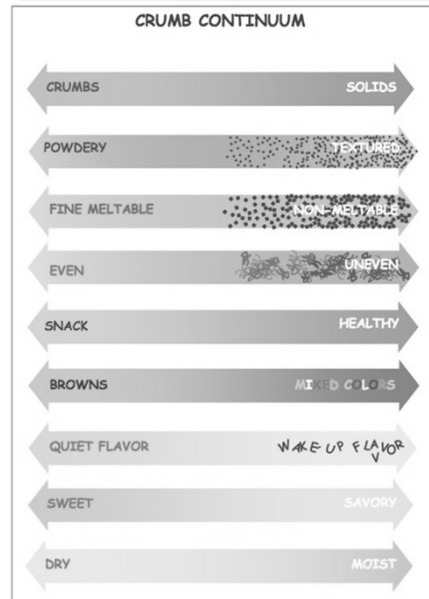
- Crumbs can be made and added in foods and on foods to systematically and carefully change the texture
- Can change texture
- Can change flavor
- Can change the look

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## Dry to moist continuum

- We generally think of crumbs as dry but...
- A continuum of crumbs towards moist
- What about corn muffins crumbed?
- What about waffles crumbed?
- Breakfast bars crumb the outer cake?
- Banana bread ☹️ (Maybe too gluey?)
- Cheese crumbs

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## Breakfast Bars



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continued

## Cheese crumbs



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continued

continued

## Cheese crumbs



33

continued

## Cheese crumbs



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continued

continued

## OR Wet to dry continuum

- For children who like purees and are not yet comfortable with dry, we can help them add crumbs on the food until there are more and more.
- They could be on the spoon or under
- They could be on a spoonful of puree and gradually less and less puree and more and more crumbs
- Until they like crumbs on the spoon without the puree.

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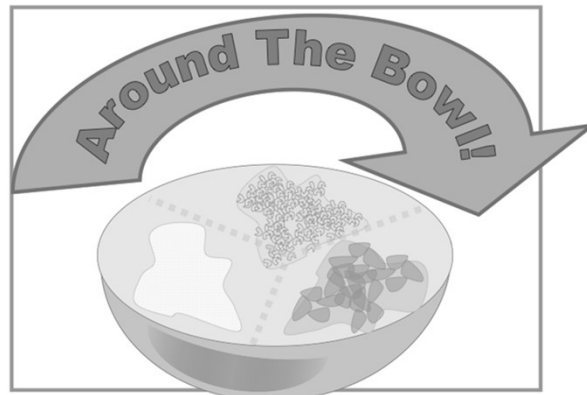
## Crumbs as a texture disguise

- Dealing with slippery
- Slippery foods such as canned peaches, apricots and bananas can be coated in a familiar crumb to disguise the slipper texture.
- Breading (batter) can be a bridge to ground meats (nuggets, breaded chicken, veal, meatballs with crumb coating, veggies fried in batter

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## Around the Bowl

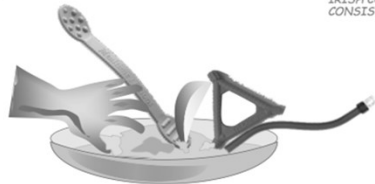


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## Puree Plateau



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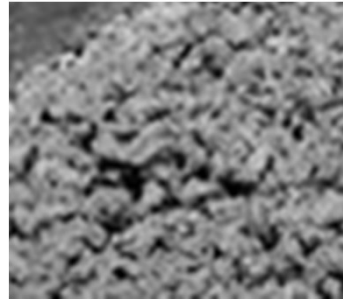
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## Anything can be a crumb?

- Hamburger “crumbs”
- Carrots prepared in a zester
- Raspberry “crumbs”
- Apple “crumbs” in the fine grater



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continued

## Rehearsals as a therapy tool

- A **rehearsal** is a practice, and introduction to the activity so the child KNOWS what is coming.
- Trying new can be scary, worrisome
- Watch try others
- Take turns
- Have choices
- Make the crumbs

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## Rehearsals from a distance

- Sight- Watch others eat or interact with them
- Sounds- Hear others crunch it
- Smell it- Smell is taste from a distance
- Feel it- in the hand is a rehearsal or preview of the texture to imagine the mouthfeel

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## Making Crumbs

- Rolling Pin
- Stomp
- Smash with spoon, play hammer
- Food processor
- Coffee bean grinder
- Grater
- Zester



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## Sensory surprises



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## Grade the Motor Ask

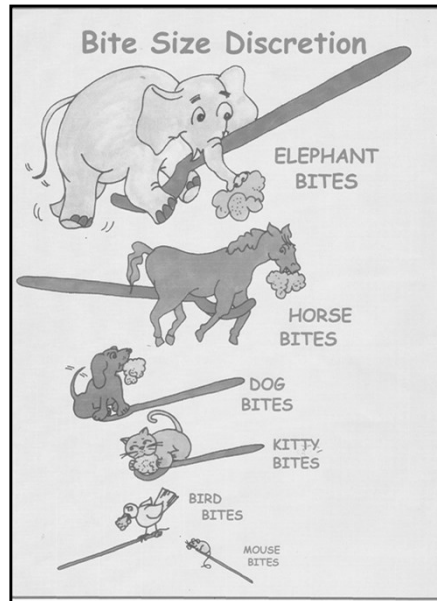
- Grade the size
- Grade the meltability
- Grade the placement (in the food, on the spoon, under the spoon, on the side of the spoon)
- Grade the crunch and chew



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## Help asymmetry

- Children need to be able to respond to food out of the midline
- Children need to get comfortable with asymmetrical interaction with foods
- They (or we) can place foods lateral, upper, lower, as needed to inspire the motor response.

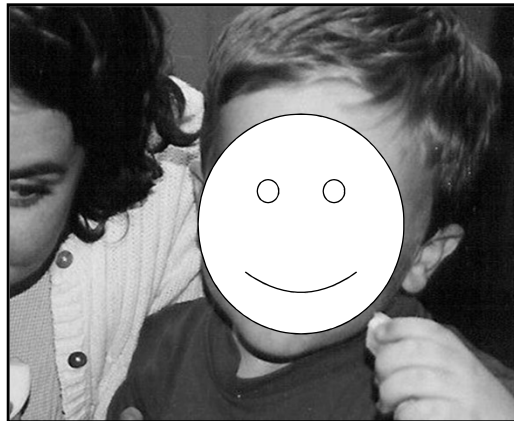


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Can you crunch?



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Finger kisses



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## Finger placement



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## A pinch of crumbs

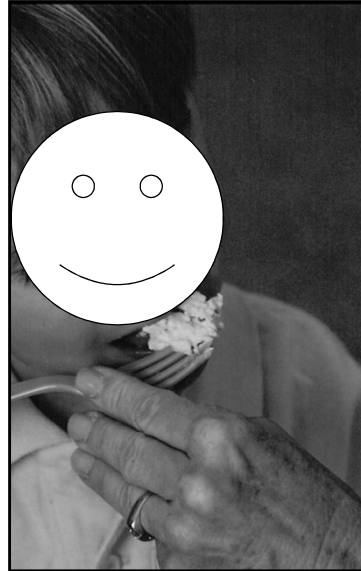


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“Can you take  
a mousebite?”



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What about scatter?

- Too much too soon can be SCATTER
- Can happen, but we can control the experience
- Build skill with the ASK

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## Crumb Stretches

- One crumb to another
- Start with a familiar crumb
- Stretch to a new crumb
- Waffle crumbs to waffle
- Nutterbutter™ cookie peanut butter
- Oreo™ cookie to coco cereals
- Multicolored cereal crumbs to freeze dried fruit or veggie crumbs

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continued

## Crumbs-Preacademics



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## Dips and Dippers

- Dip a familiar dipper (cracker, apple slice etc) in a new dip
- Dip a new dipper in a familiar dip
- Dip the dipper and dip into crumbs
  - Adds utensil experience
  - Adds calories
  - Adds texture
  - Adds novelty

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## Crumb Snow and more



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continued

## Articles

- Coulthard, H. and Thakker, D. (2015). Enjoyment of tactile play is associated with lower food neophobia with preschoolers. *Journal of the Academy of Nutrition and Dietetics* 115 (7), 1134-1136.
- Coulthard, H. and Seaky A. (2017). Play with your food! sensory play associated with tasting fruits and vegetables in preschool. *Appetite* 113 (2017), 84-90.
- Coulthard H, Harris G, Fogel, A. (2016). Association between tactile over-responsivity and vegetable consumption early in the introduction of solids food and its variation with age. *Maternal Child Nutrition* Oct: 12 (4) 848-59.

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## Books

- Sheperd, G. (2012). *Neurogastronomy: How the brain creates flavor and why it matters*. New York, NY: Columbia University Press.
- Mourtisen, O.G. and Stybaek, K. (2017). *Mouthfeel: how texture makes taste*. New York, NY: Columbia University Press.
- Stuckey, B. (2012). *Taste what you're missing: A Passionate Eater's Guide to Why Good Food Tastes Good*. New York, NY: Simon and Schuster.

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## Questions?

- [marshadunneklein@gmail.com](mailto:marshadunneklein@gmail.com)
- Check out the Grasshopper Story
  - [www.mealtime notions.com](http://www.mealtime notions.com)
- Thanks!Thanks!Thanks



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