Feeding Issues:  
Treating the Whole Child

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- Master's Degree in Occupational Therapy from Rockhurst University
- Worked with children in a variety of settings for 12 years.

Blakely Page RD,LD

- Graduated from Oklahoma State University
- Dietitian in Kansas City area for 8 years
- Worked with children for past 3 years
- Additional training in functional medicine and supplementation over past 5 years
Why don’t children eat

1. Pain
2. Discomfort
3. Immature Oral Motor Skills/Swallowing Skills
4. Sensory Processing Issues/Problem
5. Learning/Behavioral
6. Nutritional deficiencies/food sensitivities
7. Environmental Factors

Adapted from Kay Turney, PhD, 1995/2015

Common Traits of Children with DS which impact eating

- Low Muscle Tone
- Heart Defects
- Respiratory problems
- GI issues along with intestinal abnormalities
- Thyroid Conditions
- Sensory Issues
- Delayed Motor Development

Low Muscle Tone

- Delayed developmental motor skills (overall tone, oral motor skills, delayed disruption of teeth etc.)
- Sensory issues/awareness
- Can contribute to constipation
Systemic Issues
(heart/respiratory)

- When major medical conditions are present it can be very difficult to focus on the multi-steps of eating.
- Fatigue with eating
- Respiratory issues can make it difficult to eat and breath at the same time
- Breathing is body's #1 priority
- Metabolism issues/feeling of hunger, etc.

GI Issues

- Reflux
- Constipation
- Diarrhea
- Structural issues in GI tract
- Food sensitivities

Sensory System

- Highly complex system
- Disruption in one system can affect multiple systems
- Over/under reactive systems
- How was sensory system affected while in hospital when born/sick etc.
- Secondary issues/diagnoses that can go with DS.
Where to Start? (physically)
1. Family time meals
2. Food play
3. Match food to development of child

Family Meal Times
1. Family eating together
2. Time
3. Power of imitation
4. Eating only/ minimize distraction
Food Play
1. Have fun
2. Exposure to a variety of foods with various sensory properties
3. No pressure to eat

Match Food to Child
1. Give food and portions appropriate for developmental level
2. Appropriate matching minimizes barriers and supports child where they are
3. Portions, textures, and expectations

What to Do with Preferred Foods
1. Don’t overly restrict preferred foods and make changes to preferred foods
2. Three types of foods on plate
3. Language matters
What to do with Overeating

1. Limit grazing
2. Aim to nourish not just fill
3. Be active

Enhancing Nutrition

1. Nutrient Density
2. Identify food sensitivities if possible
3. Real food matters
4. Nutrition Supplementation

Nutrient Density

1. Maximize nutrition benefit of food
2. Limit processed carbs
3. Add density (bone broth, green powder, coconut oil)
Food Sensitivities

A few signs of food sensitivities:
- constipation, diarrhea or a combination of the two
- skin rashes such as eczema, psoriasis, dermatitis herpetiformis
- changes in mood or behavior after eating a particular food
- your child gets colds, respiratory infections or ear infections frequently
- sensory processing delay, apraxia, mood/behavior dysregulation, aggression

Real Food Matters

- Our environment of processed foods and chemicals is working against our children’s ability to digest and detoxify

Supplementation

- Digestive enzyme - start low and slow
  - Enzymedica brand: Digest Spectrum
  - 3 mth-3yrs ¼ capsule
  - 3-6 yrs, ½-1 capsule
  - Twist open, add amount to first bites of food, close capsule and save in try place for next use
- Houston brand - AFP
**Supplementation**

- **Probiotic- start low and slow**
  - 3 strains of bacteria, 10-40 billions cells daily
  - 10 billion = maintenance for 6 month-12yrs
  - up to 40 billion for therapeutic dose
  - Brands: Klaire Labs, Xymogen, Pure Encapsulation, Garden of Life

**Supplementation**

- **Multivitamin**
  - Vitaspectrum by Klaire Labs (powder)
  - Pure Pals by Pure Encapsulation
  - Nordic Berries by Nordic Naturals
- **Cod Liver Oil**
  - Green Pastures Fermented Cod Liver Oil
  - Nordic Naturals

**Where to Start?**

1. Limit processed sugar
2. Cook real food at home; fewest ingredients possible on bags, boxes, cans
3. Be patient and make one change at a time
4. Limit dairy and gluten containing foods
Readiness Factors for Tube Transition

1. Resolution of Original Problems
2. Overall Health of Child
3. Swallow Safety
4. Status of Oral Skills
5. Hunger
6. Child Readiness
7. Parent Readiness
8. Continuum of Oral Preparation (from non-foods to foods, utensil use, mealtime modeling, and dietary preparations for oral feedings)

PRACTICAL TIPS FOR TRANSITIONING

- Mimic normal meal pattern with feeds
- Offer real food with every tube feed
- Consider transition off formula to real food blended diet
- Move 1 feeding to before bed to allow for hunger cues to emerge.
- When child shows sign of hunger, offer food before tube feeding.

Resources

Bone Broth: Wellness Mamma
http://wellnessmama.com/5888/how-to-make-bone-broth/

Helpful book:
Resources

Marian Hope Center Nutrition Support Group:
1st Wednesday of every month
6:30 pm, Marian Hope Center

Feeding Therapy: senglish@marianhope.org

Individual Nutrition Consult: boage@marianhope.org
(appts available in Mission, KS)
Fun with Food Ideas

- Make people with food
- Be silly (act as if you are a different animal eating food: dog/cat licks food, tiger takes big bites, mouse takes small bites, etc.)
- Make kabobs (alternate preferred food with non preferred food)
- Use paint brushes to paint sauce on spaghetti noodles, spread peanut butter on crackers, hummus on cucumbers, etc.
- Paint with food and sauces (i.e. broccoli/cauliflower with different sauces, carrot sticks, celery sticks, beef jerky, etc.)
- Count the number of bites it takes to eat food
- Drive cars in food/clean the tires with tongue
- Use veggie straws, noodles, cereal as whistles to help get food to mouth
- Make edible play dough (for the peanut butter playdough you can use any nut butter or nutella) Here are some recipes:
  - http://www.naturalbeachliving.com/2014/03/edible-peanut-butter-dough.html
- Decorate your food (pipe mashed potatoes/ sweet potatoes on plate, sprinkle on “sprinkles” (diced up veggies)
- Read books about health food choices: http://delightfulchildrensbooks.com/2011/10/11/food/
- Use divided plates, fun utensils, toothpicks, and straws to eat/drink with, small kids size plates, cups
- Let children help/prep cook meals at night
- Use cookie cutters to cut food into different shapes
- Talk about properties of food
- Make a rainbow with food and eat the colors of the rainbow
- Use dice at mealttime to help determine how many bites need to be taken of each food.
- Offer choices to give child control
- Change color of food

Questions?
Contact Sara English, MOT, OTR/L
Occupational Therapist
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913-961-1697
COCONUT WHIPPED CREAM
(adapted from www.ohladycakes.com) Yields: ~ 1 ¼ c
Ingredients:
- 1 can full fat coconut milk, refrigerated overnight
- 2 tsp-1 tbsp honey, sugar or 3-4 drops of Sweet Leaf stevia sweetener
- 1/2 tsp pure vanilla extract

Preparation: Open the can of coconut milk and scoop the top layer of white, fatty goodness into a decent sized mixing bowl (discard the coconut water or save it for smoothies). Blend the chunks of coconut milk with a hand mixer on high speed for 15-20 seconds, just until the mixture turns to liquid. Sift in sweetener of choice (amount depends on how sweet you like it) and mix until combined. Add the vanilla extract and blend on high speed for 1-2 minutes, until light and creamy. Whipped cream is best served immediately, but can be stored in an airtight container for up to three days. It will harden in the fridge, so when ready to serve, simply blend with a hand mixer on high speed until creamy again.

CHOCOLATE PUDDING
(Adapted from www.paleolifestyle.com) Serves 6
Ingredients
- 3 medium avocados
- ¼ cup raw honey (or stevia to taste)
- ⅛ cup and 2 tbsp cocoa powder
- 3 tbsp almond butter
- 1 tsp lemon juice
- 1 tsp ground cinnamon
- 1 tsp ground nutmeg
- ½ tsp flavored extract (mint, coffee, almond, hazelnut), optional

Preparation: Throw everything into one big mixing bowl and use a stand mixer or a hand mixer to blend it all together. Of course, you can also use a blender or a food processor to to this job. (I use an emulsion blender and it works great) Blend until completely smooth eat! Leftovers go in the refrigerator. Enjoy!

REAL BROWNIES
(Adapted from www.fastpaleo.com)
Ingredients
- 1 cup pitted Medjool dates, chopped (i.e. chop up enough dates to equal 1 cup)
- 3/4 cup hot water
- 1 Tbsp coconut oil
- 2 tsp pure vanilla extract
- 2 tsp finely ground coffee or espresso
- 1/2 cup unsweetened cocoa powder
• 3/4 cup blanched almond flour
• 1/2 tsp baking soda
• 1/4 tsp kosher flake salt

Preparation
1. Preheat oven to 350 F. Line an 8×8 baking pan with parchment paper (or grease generously).
2. Combine dates, hot water, coconut oil, vanilla, and finely ground coffee in heatproof bowl. Let dates soak while preparing remaining ingredients.
3. Add dry ingredients (cocoa powder through salt) to bowl and whisk until well combined and no lumps are present.
4. In food processor or with emulsion blender: Add date/water mixture to bowl of processor and blend on high until smooth, scraping the bowl as needed. Add dry ingredients and process until smooth. The batter will be thick. (Once date mixture is blended, you can mix in dry ingredients by hand. This is easier to me)
5. Turn batter into prepared pan, using a spatula to get ALL of the batter into the pan. Spread batter evenly and smooth the top with your spatula. Bake in preheated oven for 15-20 minutes, until brownies are set. Cool on wire rack for 20-30 minutes, then chill (in fridge — or even the freezer) before cutting into squares. Expect brownies to be on the stickier side

(Optional: sprinkle dairy, soy free chocolate chips on top of hot brownies, smooth when melted on hot brownies and finish cooling in fridge. This gives you a hard chocolate topping and a prettier finished product)

SIMPLE BLUEBERRY MUFFINS
(adapted from www.paleomg.com Serves: 8-10
Ingredients
• 1 cup almond butter
• 1 cup almond meal/almond flour
• 3 eggs, whisked
• ½ cup Raw Honey
• ½ cup unsweetened Shredded Coconut
• ½ cup coconut oil, melted
• ½ teaspoon baking soda
• ½ teaspoon baking powder
• ¼ teaspoon sea salt
• pinch of cinnamon
• ½ cup fresh blueberries

Preparation
1. Preheat your oven to 350 degrees.
2. Mix all ingredients together in a bowl (you can get fancy and mix dry and wet separately but I can't tell the difference)
3. Place ingredients into 8-10 silicone muffin cups in a muffin tin or use muffin tin paper liners.
4. Bake for 15-20 minutes. Just keep an eye on it, they will puff up and look adorable.
5. Eat them and be happy
HOMEMADE HEALTHY FRUIT SNACKS
(adapted from www.wellnessmama.com)

Ingredients
- 1 cup water (divided)
- ½ cup (8 tablespoons) real gelatin- Great Lakes (Natural Grocers) or Jensen brand (amazon.com or radiantlifecatalog.com)
- ¼ cup honey or maple syrup (optional and to taste)
- 1 cup kombucha or fruit juice
- 1 cup pureed fruit (strawberries and other berries are our favorite - applesauce will also work) The easiest method I’ve found is to defrost frozen berries and puree them with a blender or immersion blender

Instructions:
Note: Have all ingredients ready before beginning - you’ll need to work quickly
1. Puree fruit to create a puree the consistency of applesauce or a little thinner. For us, defrosted frozen berries pureed in a blender or food processor work perfectly. Set aside one cup of pureed fruit.
2. Set aside one cup of kombucha or fruit juice. We prefer homemade kombucha flavored with strawberries for this recipe.
3. Boil ½ cup water.
4. Place ½ cup cool water in a medium sized bowl or quart size mason jar.
5. Add ½ cup gelatin powder and stir quickly to create a paste.
6. Quickly add the ½ cup boiling water and stir again briskly.
7. This should form a thick but stirable liquid.
8. Add the honey or maple syrup and stir.
9. Add the kombucha/juice and pureed fruit and stir well. You can stir with a spoon or whisk, or use an immersion blender to make it really easy.
10. Very quickly pour the mixture in to molds or a greased glass baking dish or other greased dish and allow to cool in fridge for 2-3 hours.
11. Store in fridge in an airtight container for 1-2 weeks

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