National Nutrition Month
Good Nutrition in Every Bite
Webinar
March 26, 2018
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Objectives

- What is adequate nutrition and hydration
- Ways to obtain Calories, protein and fluid from the diet
- How calories, protein and fluid requirements are calculated
- Simple ways to add extra Calories
- Texture modifications to shorten meal times
- What to expect from a clinic visit from the dietitian
- Novel diets in ALS
What is Adequate Nutrition and Hydration
Complete Nutrition and Hydration
Portion sizes

- **Protein** - Meat, chicken, fish, eggs and beans - 3-4 ounces at lunch and dinner is the correct amount of protein.

- **Fruit** - bananas, applesauce, berries - ½-3/4 cup is the approximate size portion

- **Vegetables** - spinach, broccoli, beets, carrots - 1-1/2 cups is the appropriate amount

- **Milk or yogurt** - (provides protein, Vitamin D and calcium) 1 cup for milk and yogurts are about 5-6 ounces

- **Starch or Grains** - mashed potatoes, pasta, rice, quinoa - portions vary - ½ cup is usually one serving and 2-3 servings a meal is desirable.

- **Fat** - avocado, olive oil, butter, nuts and nut butters (protein and fat), portion sizes vary, 1-2 tsp, 4 tsps. of nut butters.
Water and hydration

- More than ½ of the body is water
- Adequate hydration is important for:
  - Transporting nutrients
  - Eliminating waste products
  - Regulating body temperature
  - Adequate blood circulation
  - Lubricating joints and tissues
  - Facilitating digestion
  - Maintaining skin integrity
  - Keeps secretions thin and easier to get rid of
  - Keeps vocal cords hydrated
Tips for hydration

- Aim to drink 6-8 glasses of water, juice, seltzer, decaffeinated products a day
- To accomplish this goal:
  - Drink a full glass of water at each meal
  - Drink a full glass of water with medications
  - Carry a water bottle with you at all times
  - Add citrus, or juice to water or seltzer to add flavor
Tips for getting the proper nutrition

- Eat smaller more frequent meals, think of 5-6 small meals instead of 3 larger meals
- Make every bit count—use a high calorie spread on bread and vegetables, use whole milk and use sauces and gravies liberally
- Keep meals to 30 minutes, even if you have to cut up foods into smaller pieces
- Use easier to eat foods such as yogurt or eggs early in a day you plan to socialize and talk more (conserve your energy)
- If you skip a meal, have a high calorie smoothie or milkshake
Example of Diet Changes and What is Required
Diet Changes

- High Calorie supplements- add calories, protein and fluid in a small volume and may be easier to consume and keep meal times under 30 mins.

- Texture modifications- smaller bites, around the size of your thumbnail, may help keep meal times within 30 mins and cause less chewing.

- Thickened liquids - commercially prepared products (Simply thick) or smoothies with a natural thickener such as banana will add calories and protein. Nectars may be thicker and easier to swallow and can be included in the diet.

- High Calorie cookbooks can help add variety and more balanced nutrition to the diet.
Guidelines for oral intake, how much do I need?

<table>
<thead>
<tr>
<th>Food group</th>
<th>Servings/day</th>
<th>examples</th>
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<tbody>
<tr>
<td>Meat or protein</td>
<td>2 or more</td>
<td>3 oz hamburger, fish or 2 cups of beans</td>
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<tr>
<td>Milk or yogurt</td>
<td>2 or more</td>
<td>8 oz of milk or yogurt</td>
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<tr>
<td>Fruit and vegetables</td>
<td>5 or more</td>
<td>½ c. cooked or 1 c. raw broccoli or other vegetable, 1 medium or ½ c. canned fruit such as peaches</td>
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<td>Grains or starch</td>
<td>6-11</td>
<td>1 slice of bread, ½ c. pasta or 1/3 c. rice</td>
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<tr>
<td>Fat</td>
<td>4-7</td>
<td>1 tsp butter or olive oil, or 1 tbsp. cream cheese</td>
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Breakfast
1 scrambled egg (1 protein) in butter (1 fat) and 1 c of oatmeal (2 starch) with butter (1 fat), water

Lunch
2-3 oz of tuna (2-3 serving of protein), lettuce and tomato (1 serving veg) with 2 tsp mayo (2 servings of fat) on a soft roll (2 starch), 8 oz milk (1 milk), ½ c applesauce (1 fruit), water

Dinner
3 oz chicken (3 protein), 1 cup mashed potatoes with butter (2 starch, 1 fat), 1 c. carrots with 1 tsp butter (2 veggies and 1 fat), gravy or sauce (Fat and starch, just extra calories), vanilla yogurt (1 milk) with ¾ c. blueberries (1 fruit), water

Snack
1 c. ice cream or a smoothie, water

Total=1700-2100 Calories and protein 82-96 grams
Nutrition Assessment and Estimating Needs
Nutritional Assessment

- Assess weight - establish usual adult weight
- Look at fluid intake - observation that increased water keeps you hydrated and out of the hospital (6-8 8oz glasses a day). Liquids at room temperature count!
- Other past medical history
- Weight trends
- Use of respiratory machines
Estimating Energy Needs

- 25 Cals/kg = weight maintenance
- 30 Cals/kg = weight gain/mild stress
- 35 Cals/kg = Calories for highly stressed or individuals with increased Calorie needs due to the work of respiration

  - A 145 lb woman or 66 kg x 25 Cals = 1650 Cals
  - A 185 lb man or 84 kg x 30 Cals = 2500 Cals.
Estimating Protein Needs

- RDA for protein 0.8-1.0 gram of protein/kg
- Stress may impact needs and 1.2-1.5 grams of protein/kg may be required in certain situations
  - For example: 165 lb man would require 60-75 grams of protein
  - When stressed that same man would require 90-112 grams of protein
Non-Invasive Ventilation (NIV)

- NIV rests the respiratory system and may slow weight loss and provide more energy throughout the day.
- While not a nutritional supplement in the traditional sense, does help with conserving the calories used in a day.
What to expect at a clinic visit from the dietitian

- Weight will be taken and weight history obtained
- Length of meal times will be asked
- Approximate typical day intake will be asked (usually on the first visit and if weight loss occurs)
- Hydration status will be addressed
- At my clinic and many others team members visit with a partner and my partner is the Speech Language Pathologist (SLP)
- The SLP will assess safest texture and if thickening fluids would be helpful and communication issues
**Build a Better Smoothie**

**Step 1 Pick a Base**
Choose a liquid base that is rich with nutrients and calories. Juice, coconut milk, almond milk, and whole milk are all great options. Add approximately 1 cup.

**Step 2 Add a thickener**
Greek yogurt or cottage cheese both add creaminess, plus a protein boost. Ice cream can be used to add maximum calories. Add ½ cup.

**Step 3 Add fruit for flavor and sweetness**
1-2 servings of fruit per smoothie. Berries, banana, and cherries, mangoes all add great flavor. Bananas add a natural thickness. Add 1 cup total.

**Step 4 Sneak in the Greens**
If vegetables are hard to eat, greens like kale or spinach are easily disguised by flavorful fruits, that’s almost a serving of greens you won’t even taste!

**Step 5 Blend!**
Run your blender on high until your smoothie is completely blended. If too thick, slowly add water until reaching your desired thickness.

**Quick Tips**
- **Flavor Boosters**: chocolate syrup, cinnamon, nutmeg, almond or vanilla extract, cocoa powder, lemon.
- **Increase protein and fats with nut butters**: Peanut, almond or cashew butter.
High Calorie and Easy to chew Recipes

Table of Contents

Breakfast Items
Porridge
Yogurt Oatmeal
Fried Eggs on Toast
Breakfast Omelettes
Avocado, Cheese and Pepper Omelette
Cranberry French Toast
Banana Topped French Toast

Soups
Cranberry Tomato Soup
Broth of Mushroom Soup
Beef and Red Wine Soup
Caldo Antojitos Mexican Soup
Summer Recipes

Main Dishes
Barbeque
Grilled and Halibut with sauce
Jamaican Jerk Beef
Silken Tofu
Goulash with Tomatoes
Vegetable Meat Loaf
Quiche Lorraine
Casseroles

Desserts
Ice Cream Chocolate Covered Strawberries
Strawberry Cheesecake Quenelles
Two-Bite Blackberry Squares

Sauces
Quick Taco Dip
French Biscuit Quenelles
Other Easy Soup Suggestions
Ways to Add Extra Calories to your Diet

Easy Ways to Add Extra Calories to Your Meals

- 1/4 of an avocado (spread on bread or other foods)
- 1 tablespoon natural peanut butter or other nut butter*
- 1 hard cooked or scrambled egg*
- 2 teaspoons of olive oil
- 3 oz cup of ice cream*
- 5 oz cup of yogurt (Greek)*
- 1 medium banana or half of a mango
- 1/2 cup cottage cheese*
- 3 tablespoons of sour cream
- Add extra mayonnaise or salad dressing to salads and meals
- 4 oz Pudding cups
  *Foods that contain protein
## High Calorie and Protein Supplements

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<th>Name</th>
<th>Serving Size</th>
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<th>Carbs (gms)</th>
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Novel Diet Approaches in ALS

- Coconut oil
- Ketogenic and high fat diets
- Deanna Protocol
Thank you!
Please Ask Questions