



NUTRITION WELLNESS FOR THE IDD POPULATION

PRESENTED BY

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DISCLOSURES

No disclosures to
declare.

LEARNING OBJECTIVES

1. IDENTIFY COMMON HEALTH ISSUES THAT IMPACT NUTRITIONAL HEALTH OF THE IDD POPULATION.
2. CALCULATE BODY MASS INDEX (BMI) AS A TOOL IN DETERMINING HEALTH RISKS AND UNDERSTAND PHYSICAL CONDITIONS THAT IMPACT ACCURACY OF THIS TOOL.
3. RECOGNIZE PARAMETERS OF SIGNIFICANT WEIGHT CHANGE.
4. DISCUSS BASIC COMPONENTS OF FOOD SAFETY IN PURCHASING, STORING, PREPARING AND SERVING FOOD TO IDD INDIVIDUALS.
5. DISTINGUISH BETWEEN VARIOUS FOOD AND BEVERAGE TEXTURES FOR INDIVIDUALS WITH CHOKING AND ASPIRATION RISKS.



NURSING STAFF

VITAL ROLE IN NUTRITION SCREENING AND MONITORING

COMMON HEALTH ISSUES AND CONCERNS

MEDICAL/PHYSICAL



OBESITY

- SIGNIFICANT WEIGHT GAIN OR LOSS
- SEDENTARY LIFESTYLE

CONSTIPATION

UNDERWEIGHT

POLY-PHARMACY

HYPERLIPIDEMIA

DENTAL DISEASE

GERD

CHOKING AND ASPIRATION

- SWALLOWING ISSUES
- DYSPHAGIA

COMMON HEALTH ISSUES AND CONCERNS

FUNCTIONAL/BEHAVIORAL



“RIGHTS” vs
“RESPONSIBILITY”

POOR
POSITIONING

INTELLECTUAL
DISABILITIES AND
IMPULSE
DISORDERS

PICA BEHAVIOR

THE HUMAN BODY

- ▶ DESIGNED FOR MOVEMENT



- ▶ NEEDS TO BE FUELED BY:
- ▶ MACRONUTRIENTS (provide calories)
 - ▶ CARBOHYDRATES-4 calories/gram
 - ▶ PROTEINS-4 calories/gram
 - ▶ LIPIDS (FATS)-9 calories/gram
 - ▶ ALCOHOL-7 CALORIES/GRAM
- ▶ MICRONUTRIENTS
 - ▶ VITAMINS
 - ▶ MINERALS

HEALTH CONCERNS

- ▶ Obesity
- ▶ Hyperlipidemia
- ▶ GERD
- ▶ Constipation

- ▶ Influenced and exacerbated:
 - ▶ Lack of exercise
 - ▶ Dietary Intake
 - ▶ Fluid intake
 - ▶ Fiber intake



WHAT'S YOUR “IDEAL” BODY WEIGHT

► FEMALES

- 100 Pounds for first 5'
- 5 pounds for each inch above/below 5'
- +/- 10%



► MALES

- 106 pounds for first 5'
- 6 pounds for each inch above/below 5'
- +/- 10%



WHAT IS BMI?



- ▶ Weight in kilograms (kg) divided by height in meters (m) squared
- ▶ EXAMPLE: 180-pound individual who is 5'8"
 - ▶ 180 divided by 2.2 = 81.8 kg
 - ▶ 68" times .0254 = 1.73 m
 - ▶ $\frac{81.8}{2.99} = 27.4$ (overweight range)

NUTRITION CONCERNS RELATED TO BMI AND WEIGHT

- ▶ BMI (Body Mass Index) ranges
 - ▶ Underweight - <18.5
 - ▶ Normal range - $18.5 - 24.9$
 - ▶ Overweight - $25.0-29.9$
 - ▶ Obesity, grade 1 - $30.0-34.9$
 - ▶ Obesity, grade 2 - $35.0-39.9$
 - ▶ Obesity, grade 3/morbid obesity - >40.0
- ▶ Significant weight gain or loss
 - ▶ $\pm 5\%$ in 30days (1 month)
 - ▶ $\pm 7.5\%$ in 90 days (3 months)
 - ▶ $\pm 10\%$ in 180 days (6 months)
- ▶ Sedentary lifestyle
 - ▶ Aim for one hour of physical activity daily



“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”

THE METABOLIC SYNDROME

Diabetes Type 2

High blood pressure

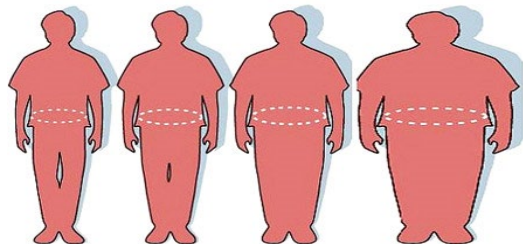
Low HDL Cholesterol

Insulin Resistance

Fatty liver

High Plasma Triglycerides

Hyperglycemia



- ▶ Increased risk for heart disease, diabetes and stroke
- ▶ Linked to obesity and lack of physical activity
- ▶ Risk factors
 - ▶ Waist circumference >35" for women and >40" for men
 - ▶ High triglyceride levels
 - ▶ Low HDL cholesterol levels
 - ▶ HTN
 - ▶ High fasting blood sugar levels

SEDENTARY LIFESTYLE

- ▶ Contributes to weight gain
- ▶ Increases adipose fat storage
- ▶ Decreases muscle tone
- ▶ Decreases ability to maintain proper positioning



EXERCISE

- ▶ One hour of exercise daily - does not have to be one continuous hour.
 - ▶ Incorporate movement into daily routine (sweeping, vacuuming, laundry, shopping)
 - ▶ Find physical activities they like
 - ▶ Swimming
 - ▶ Walking
 - ▶ Dancing
 - ▶ Sports
- ▶ **YOUTUBE**
 - ▶ Get Yo Body Moving (Koo Koo Kanga Roo)
 - ▶ Helping Hands
 - ▶ IvanaExercise
 - ▶ MUVEmethod
 - ▶ Moove2Groove
 - ▶ **MUSIC!!** - Makes you want to move

LOW IMPACT EXERCISE

- ▶ A Low Impact Exercise Program is Less Stressful on the Joints but Continues to Provide Needed Mobility and Cardio Training.
- ▶ Combine Exercise with Music to Make it Fun and Increase Movement.

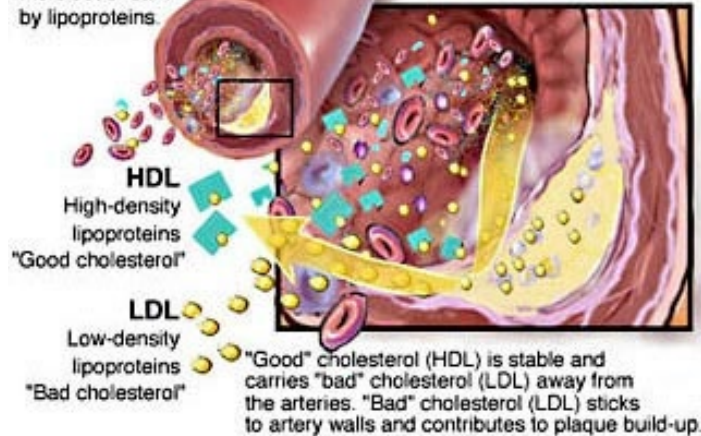


NORMAL LIPID LEVELS

- ▶ TOTAL CHOLESTEROL
 - ▶ 100-199 mg/dL
- ▶ TRIGLYCERIDES
 - ▶ 0-149 mg/dL
- ▶ HDL (GOOD) CHOLESTEROL
 - ▶ >39 mg/dL
- ▶ LDL (BAD) CHOLESTEROL
 - ▶ 0-99 mg/dL
- ▶ VLDL CHOLESTEROL (CALCULATED)
 - ▶ 5-40 mg/dL
- ▶ LDL/HDL RATIO
 - ▶ 0.0-3.2
- ▶ CHOLESTEROL ONLY COMES FROM ANIMAL SOURCES. THERE IS NO CHOLESTEROL IN FRUITS, VEGETABLES, OR GRAINS.

Cholesterol

Cholesterol is a waxy fat carried through the bloodstream by lipoproteins.



MANAGING AND PREVENTING HYPERLIPIDEMIA

- ▶ Limit fried foods to once or twice monthly.
- ▶ Increase fiber intake.
- ▶ One hour of exercise daily



GERD

► GASTROESOPHAGEAL REFLUX DISEASE SYMPTOMS

- Heartburn
- Indigestion
- Reflux
- Belching/excessive burping
- Bloating
- Erosion of the esophagus



GERD RECOMMENDATIONS

- ▶ Upright for 30 - 60 minutes after eating
- ▶ Elevate head of bed
- ▶ Monitor for GERD symptoms
- ▶ Limit intake of foods that aggravate GERD if experiences symptoms
 - ▶ Fried and fatty foods
 - ▶ Tomato and tomato sauce
 - ▶ Chocolate
 - ▶ Mint
 - ▶ Garlic and onions
 - ▶ Citrus foods
 - ▶ Caffeine

CONSTIPATION



CONSTIPATION PREVENTION

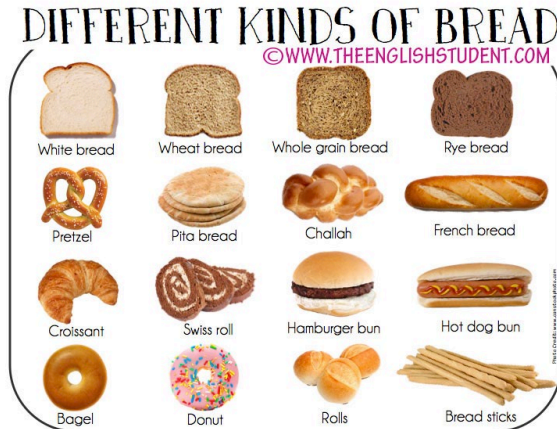
- ▶ Increase fluid intake, particularly water
- ▶ 4 oz. prune juice three times daily
- ▶ 4 oz. apricots or papaya daily
- ▶ 6 - 8 ounces of warm beverage before each meal
- ▶ Increase physical activity
- ▶ Track bowel activity



- ▶ Fruit and fiber blend - $\frac{1}{4}$ cup two times daily (or as needed)
 - ▶ One package dried, pitted prunes
 - ▶ One package dried apricots
 - ▶ 1 fresh apple, peeled, cored and chopped
 - ▶ Chop prunes, apricots and apples. Cover with water and simmer about 45 minutes
 - ▶ Store in refrigerator up to three days
 - ▶ May be pureed as needed to meet consistency needs

DIETARY FIBER

- ❖ Fiber is a substance found in plants
 - ❖ Adds bulk to your diet
 - ❖ Helps you feel full faster and control weight
 - ❖ Aids in digestion and prevents constipation
 - ❖ Helps treat diverticulosis, diabetes, and heart disease
 - ❖ Helps maintain consistent blood glucose levels



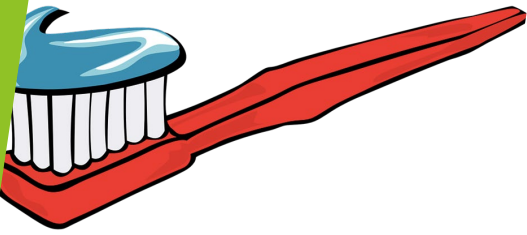
- ❖ Recommendations
 - ❖ 25 - 35 grams per day
 - ❖ On average, Americans get only 15 grams per day
- ▶ Choose high fiber, whole grain breads, pasta and cereals
- ▶ “Wheat” bread is not high in fiber
 - ▶ 3 or more grams of fiber per serving
- ▶ NO sugar-coated cereals!
- ❖ Sources
 - ❖ Cereals
 - ❖ Dried beans and peas
 - ❖ Fruits
 - ❖ Vegetables
 - ❖ Whole grains



HEALTH CONCERNS

- ▶ Poly-pharmacy
 - ▶ Multiple medications
 - ▶ Many have side effects of increased appetite and weight gain
 - ▶ Certain foods may interact with medications (food-drug interactions)
 - ▶ Increased level of medication
 - ▶ Binds and restricts availability of medication
 - ▶ Check professional sources for food-drug interactions
 - ▶ Food-drug interactions should be indicated on information sheet from pharmacy





Importance of Oral Hygiene



- ▶ Bacteria forms in the mouth immediately after we eat and within minutes of brushing our teeth. Therefore, proper oral care is very important.
- ▶ Good oral care has the potential to decrease aspiration pneumonia risk. The **Dental Health Foundation** has warned that **poor oral hygiene** can cause respiratory infection such as **pneumonia** or could worsen an existing respiratory condition. Good oral hygiene also reduces risk of heart disease.
- ▶ The key to good oral hygiene is **FRICTION** and **FREQUENCY**. Individuals should be encouraged to perform proper oral hygiene after each meal/snack. (Assist as needed)
- ▶ We need to look at oral care with our individuals as a medical intervention and not just as part of grooming.





choice

We make our
choices,
then our choices
make us.

RIGHTS vs RESPONSIBILITY

RIGHTS

- ▶ Individuals have the right to make choices:
 - ▶ Clothing
 - ▶ Activities
 - ▶ Foods
 - ▶ Living arrangements
 - ▶ Friends and associates
 - ▶ Daily routine

RESPONSIBILITY

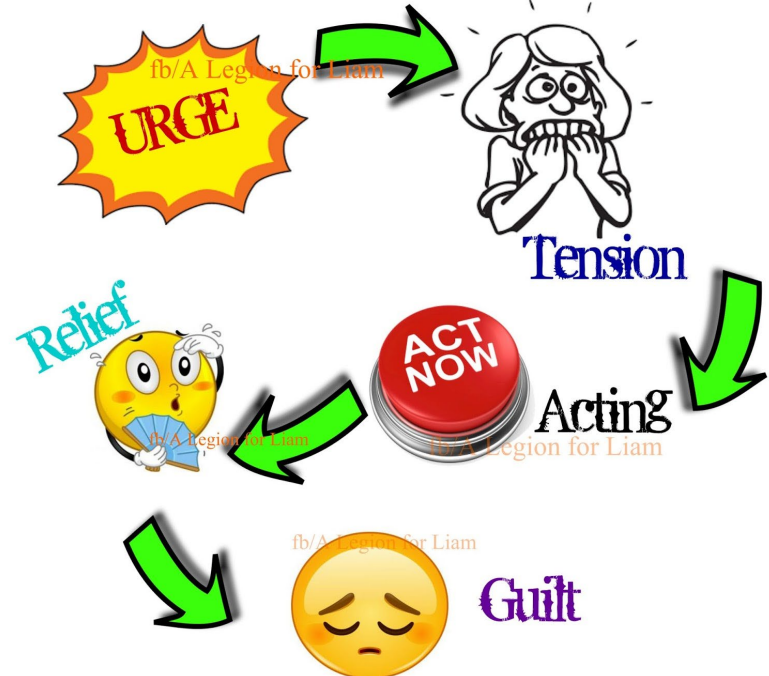
- ▶ Providers have responsibilities toward individuals:
 - ▶ Safety
 - ▶ Health
 - ▶ Provide opportunities for choices
 - ▶ Reasonable accommodation
 - ▶ Support individuals in making informed, healthful, and safe decisions

INTELLECTUAL DISABILITIES, IMPULSE CONTROL DISORDERS, MOOD DISORDERS, AUTISM SPECTRUM, ANXIETY DISORDERS

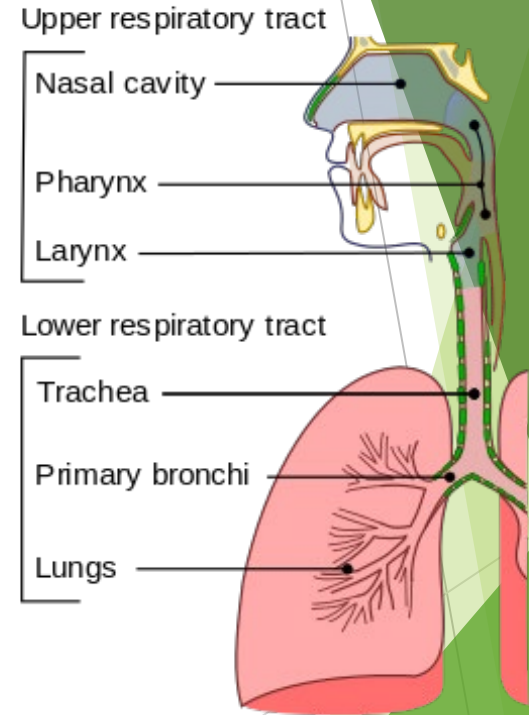
- ▶ Individuals may not understand restrictions to their diet.
- ▶ Individuals may lack the skills to make healthy decisions and may not understand the consequences of poor food choices.
- ▶ Restriction of access to food may lead to undesirable behaviors.
- ▶ May not be able to control food cravings and/or urges.
- ▶ May exhibit behaviors in response to limitations on diet and food intake

5 Stages of Impulse Control

fb/A Legion for Liam



CHOKING, DYSPHAGIA AND ASPIRATION PREVENTION



Choking

- Choking is the mechanical obstruction of the flow of air into the lungs.
- It can be partial or complete. A complete blockage of air into the lungs will cause death in approximately 4 - 6 minutes.
- Therefore, quick action is needed.



Universal sign
for choking

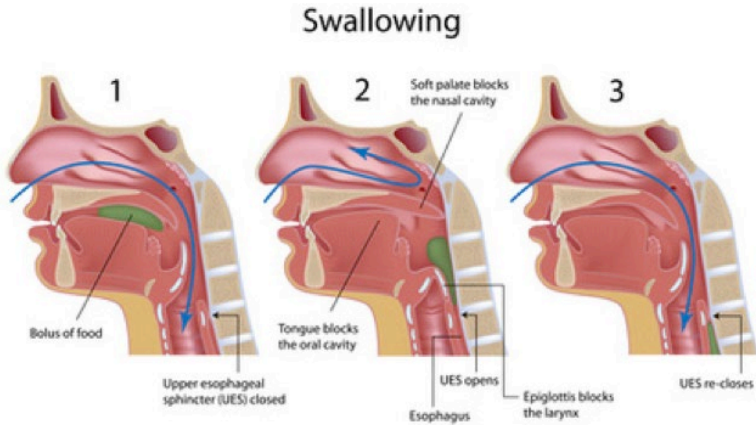
SIGNS OF CHOKING

- ▶ Cannot speak or cry out
- ▶ Labored breathing
- ▶ Gasping
- ▶ Wheezing
- ▶ Violent coughing
- ▶ Gagging, vomiting sound, vomiting
- ▶ Clutching throat
- ▶ Tearing of eyes
- ▶ Gurgling sound
- ▶ Turning blue
- ▶ Unconsciousness



Most Common Items People Choke On:

- Hot dogs
- Coins
- Peanut butter
- Popcorn
- Grapes
- Marbles
- Latex balloons (also latex gloves)
- Small toys and other small items
- Large pieces of carrot or other hard foods.
- Tough, fibrous pieces of meat



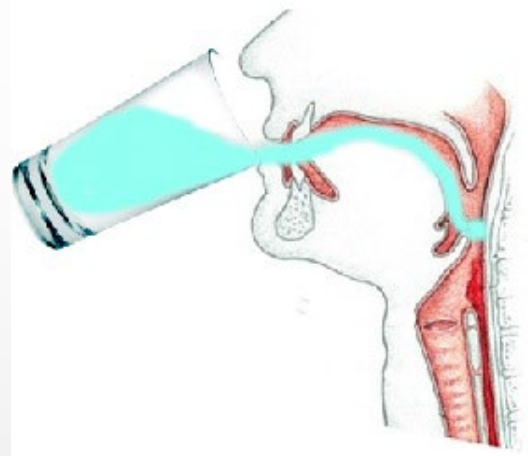
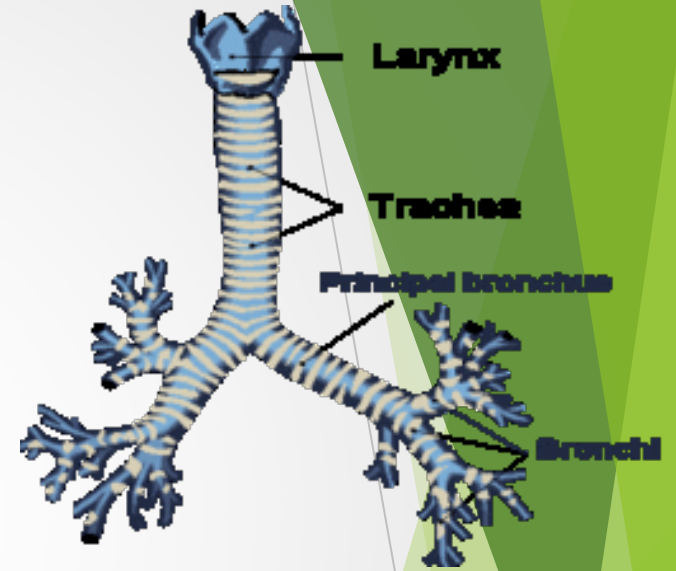
DYSPHAGIA: DIFFICULTY SWALLOWING

SIGNS, SYMPTOMS, AND CONTRIBUTING FACTORS OF DYSPHAGIA

- Nasal regurgitation
- Difficulty in managing oral secretions
- Gets distracted from eating
- Needs to be reminded food is in mouth
- Difficulty taking oral medications
- Inability to maintain upright or semi-reclined position or neutral head position
- Tearing of eyes
- Throat clearing
- Complaints of pain or grimaces when swallowing

ASPIRATION

- ▶ Solids/liquids are drawn into the respiratory system
- ▶ Most frequent consequence:
 - ▶ ASPIRATION PNEUMONIA
- ▶ Silent Aspiration
 - ▶ No signs or symptoms noted when food/fluid enters the lungs



DYSPHAGIA ASSESSMENT

TWO TYPES OF ASSESSMENTS

SCREENING

- ▶ Bedside Swallow Study
- ▶ Choking and Aspiration Risk Assessment
- ▶ Various other names



CLINICAL TESTING

- ▶ MBSS (Modified Barium Swallow Study)
- ▶ VFSS (Videofluoroscopic Swallowing Study)
- ▶ FEES (Fiberoptic Endoscopic Evaluation of Swallow)
- ▶ Modified Barium Swallow Study (MBSS) is critical to confirm or rule-out a diagnosis of aspiration.
- ▶ A copy of the recommendations from a Speech Language Pathologist should be presented to the PCP to get an order for the recommended testing.
- ▶ **NOTE:** A barium swallow study is not the same as a Modified Barium Swallow Study (MBSS)

PROPER POSITIONING FOR MEALTIMES AND SNACKS

- ▶ It is important to maintain proper positioning in a straight back chair or wheelchair while eating. Sitting upright, not tilted back or slumped to the side, helps with proper swallowing.
- ▶ Chin should be slightly tucked. Head should never be tilted backward.
- ▶ A person should not eat (or be fed) if sleepy, confused, or agitated.
- ▶ If individual is fed by caregiver, they should be seated at the table beside the individual, not standing over the person.
- ▶ Keep in upright position for 30-60 minutes after eating.
- ▶ PROPER POSITIONING CAN REDUCE RISK OF CHOKING AND ASPIRATION



Safe Mealtime Tips



- ▶ Monitor/supervise meals and snacks for safety
- ▶ Maintain a calm and quiet mealtime atmosphere
- ▶ Do not rush meals, allow everyone to eat at their own pace
- ▶ Provide regular size utensils (not a tablespoon)
- ▶ Encourage taking small bites/sip sizes
- ▶ Encourage a slow eating and drinking pace
- ▶ Encourage to alternate foods with liquids
- ▶ Encourage to swallow food in mouth before adding another bite
- ▶ Maintain good oral hygiene to control oral bacteria
- ▶ Maintain the recommended diet texture when on community outings
- ▶ Continue to monitor for all sign and symptoms of aspiration



KEEP FOOD SAFE!

- ▶ Store foods in refrigerator.
- ▶ Thaw meats properly.
 - ▶ In the refrigerator-up to two days.
 - ▶ Under COLD, RUNNING water.
 - ▶ In the microwave.
- ▶ Handle leftovers properly-store in a covered container in refrigerator and use within 3 days. Heat to a safe temperature before serving (135°).
- ▶ Observe the danger zone: 41° - 135°.



REGULAR DIET



CHOPPED-DICED DIET



MINCED DIET






PUREE DIET

ALL DIET TEXTURES

- Should be tasty
- Properly prepared according to the doctor's order
- Healthy and nutritious
- Prepared and served at safe temperatures



ACHIEVING THE CORRECT LIQUID CONSISTENCY

Nectar like liquids	<ul style="list-style-type: none"> • Easily pourable • Comparable to thick syrup • Forms a thin web over the prongs of a fork 	
Honey like liquids	<ul style="list-style-type: none"> • Slightly thicker, drizzles when poured • Comparable to honey • Forms a thick web over the prongs of a fork 	
Spoon thick/ Pudding like liquids	<ul style="list-style-type: none"> • Not pourable, holds their shape • Comparable to yoghurt • Sits on the prongs of a fork 	

Fluid consistencies

Thin



Runs quickly through the prongs of the fork with little or no coating
e.g. water, tea

Nectar



quickly sink through the prongs
e.g. tomato juice

Honey



Coats fork and slowly sink through the prongs
e.g. yogurt, honey

Pudding



Remains on the fork and holds together well
e.g. mayonnaise





INTERNATIONAL
DYSPHAGIA DIET
STANDARDISATION
INITIATIVE (IDDSI)
www.iddsi.org

HEALTHY EATING TIPS

- ▶ Three servings of fruit daily
- ▶ Three to five servings of vegetables daily
- ▶ Whole grains
- ▶ Lean meats
- ▶ Limited fried foods
- ▶ Limited processed foods
- ▶ Add no additional salt after cooking to help manage hypertension
- ▶ Limit snack items to small portions and occasional use (chips, cookies, candy, cakes, pies, sodas)



Choose the right partners!

READING FOOD LABELS

- ▶ Serving sizes
- ▶ Servings per container
- ▶ Dietary Fiber
- ▶ Added Sugars
- ▶ Vitamin D
- ▶ Calcium
- ▶ % Daily Value



Nutrition Facts	
Serving Size 2/3 cup (55g)	
Servings Per Container About 8	
Amount Per Serving	
Calories 230	Calories from Fat 40
% Daily Value*	
Total Fat 8g	12%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	12%
Dietary Fiber 4g	16%
Sugars 1g	
Protein 3g	
Vitamin A	10%
Vitamin C	8%
Calcium	20%
Iron	45%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.	

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per 2/3 cup	
Calories	230
% DV*	
12%	Total Fat 8g
5%	Saturated Fat 1g
	Trans Fat 0g
0%	Cholesterol 0mg
7%	Sodium 160mg
12%	Total Carbs 37g
14%	Dietary Fiber 4g
	Sugars 1g
	Added Sugars 0g
	Protein 3g
10%	Vitamin D 2mcg
20%	Calcium 260mg

HEALTHY EATING PLATE

Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.



The more veggies—and the greater the variety—the better. Potatoes and french fries don't count.

Eat plenty of fruits of all colors.



STAY ACTIVE!

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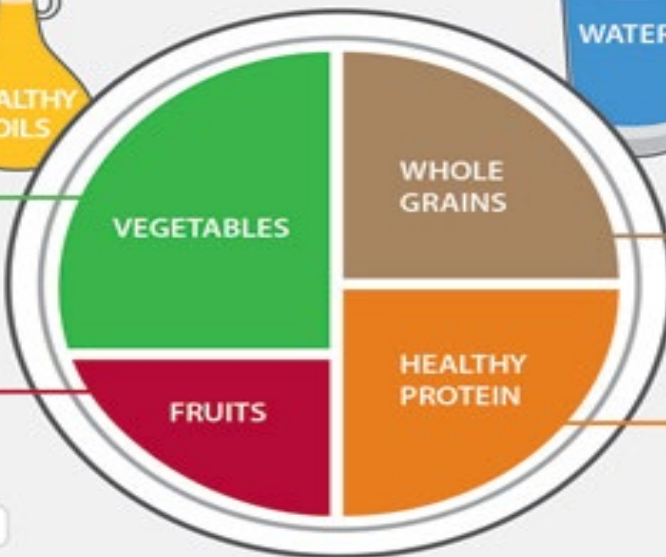
Harvard School of Public Health
The Nutrition Source
www.hsph.harvard.edu/nutritionsource



Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.

Eat whole grains (like brown rice, whole-wheat bread, and whole-grain pasta). Limit refined grains (like white rice and white bread).

Choose fish, poultry, beans, and nuts; limit red meat; avoid bacon, cold cuts, and other processed meats.



Harvard Medical School
Harvard Health Publications
www.health.harvard.edu



HEALTHY CHOICES COLORFUL = MORE VITAMINS AND MINERALS

- ▶ Avoid processed foods and mixes.
- ▶ Limit intake of fried foods to 1 to 2 times weekly.
- ▶ Utilize healthy fats such as olive oil, canola oil, vegetable oil.
- ▶ Choose breads and grains with at least 3 grams of fiber per serving.
- ▶ Use herbs and seasonings without salt to increase flavor.



FLUID NEEDS

- ▶ Fluid
 - ▶ Primarily Water!
 - ▶ One ounce per kilogram
- ▶ No more than one serving of artificially sweetened beverages daily
- ▶ Limit caffeinated beverages to one serving daily
- ▶ Avoid sugary drinks as they have little nutritional value
 - ▶ HUGS!, Kool-Aid, juice boxes, sodas



DRINK UP!





EAT YOUR FRUITS – DON'T DRINK YOUR FRUITS!

- ▶ Fruits are a great source of vitamins and fiber.
- ▶ Also, a source of calories and natural sugar.
- ▶ Multiple pieces of fruit are needed to produce one glass of juice; therefore, juice has a high sugar content.
- ▶ Adding fruit to smoothies is a good way to incorporate fruit for individuals who do not accept fresh fruits. (Do not add additional sugar!)



SEASONING SUGGESTIONS

- ▶ Marinate meats to tenderize before cooking
- ▶ Use muscle meats rather than ground meats for smoother pureeing
- ▶ Use healthy oils (olive, vegetable, canola)
- ▶ Add onions, garlic, celery, carrots or peppers when cooking for added flavor
- ▶ Utilize fresh or dried herbs
- ▶ Avoid seasoning blends with salt
 - ▶ Garlic powder instead of garlic salt
 - ▶ Onion powder instead of onion salt



PRESENTED BY:

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