

# Warm-Up

- ✗ What foods are high in fiber?

# ESSENTIAL STANDARD

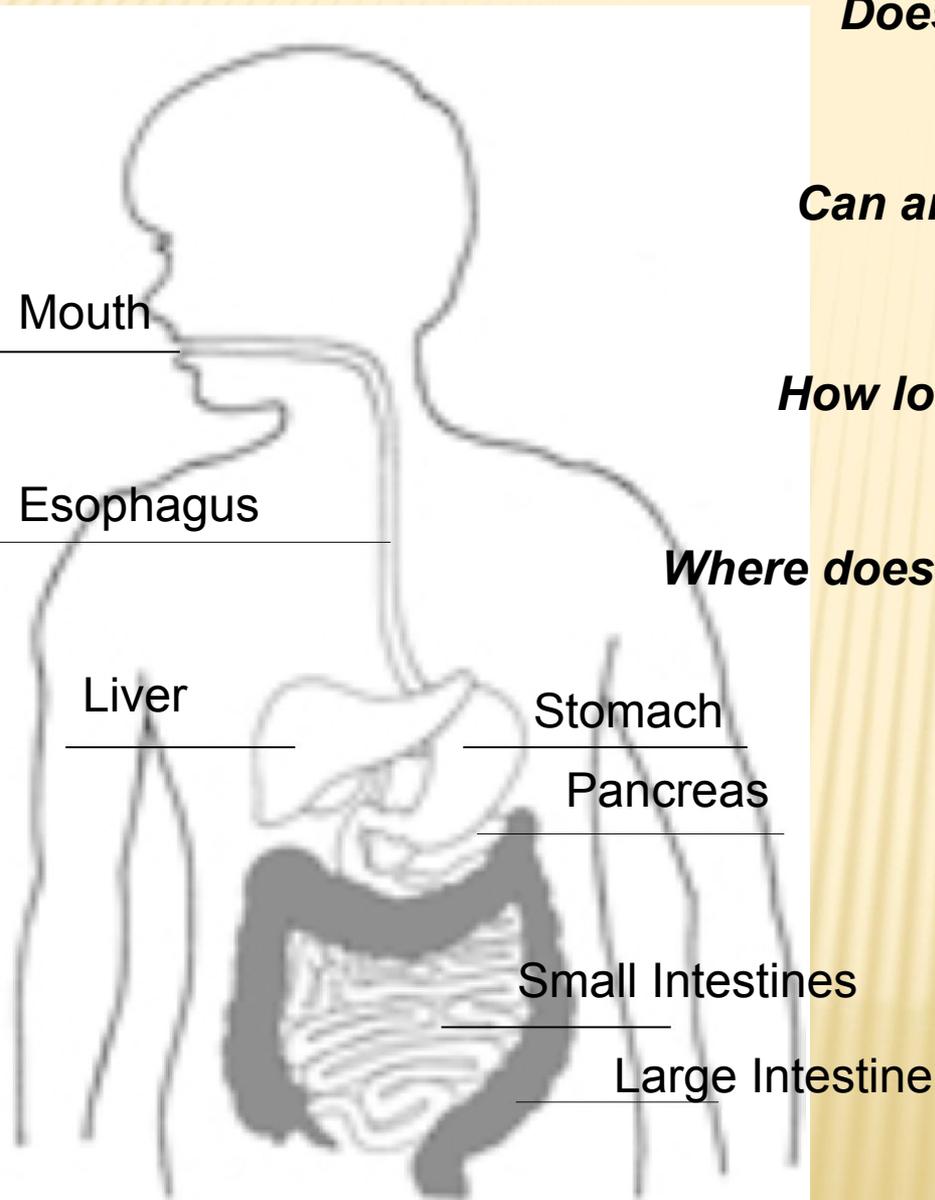
- × 6.NPA.2 - Apply strategies to consume a variety of nutrient dense foods and beverages in moderation.
  
- × Clarifying Objectives:
  - + 6.NPA.2.3 - Implement a plan to consume adequate amounts of foods high in fiber

**HIGH FIBER FOODS:  
WHOLE GRAINS, FRUITS,  
AND VEGETABLES**

# OBJECTIVES

- ✗ Define fiber and the types of fiber
- ✗ Identify sources of fiber from a variety of food options
- ✗ Locate fiber content on food labels
- ✗ Select high fiber foods to increase one's health

# Name the parts of the digestive system



***Does anyone know what the esophagus is?***

It is the tube to the **stomach**

***Can anyone tell me how long the esophagus is?***

It's about **nine inches** long

***How long does food usually stay in the stomach?***

From **2-6 hours**

***Where does most of the digestion process take place?***

In the **small** intestine

***Can anyone tell me how long the small intestine is?***

**20-30 feet**

***Can anyone name some other body parts that play a role in digestion?***

Pancreas, liver

- ✘ *The Pancreas is located behind the stomach. It produces fluids to help with digestion, which then move into the small intestine. The pancreas also produces **insulin**, which helps control sugar in our blood.*
- ✘ *Our livers make bile which helps us break down fatty foods. The **bile** is stored in the gallbladder.*



# TYPES OF FIBER

- × There are 2 forms of fiber:
  - a. Soluble
  - b. Insoluble.

# ***SOLUBLE FIBER***

- + Soluble fiber partially dissolves in water and has been shown to lower cholesterol, which can help prevent heart disease
- + attracts water and turns to gel during digestion.
  - + This slows digestion.

- + Soluble fiber is found in
  1. oat bran
  2. Barley
  3. Nuts
  4. seeds
  5. Beans
  6. Lentils
  7. Peas
  8. some fruits and vegetables.

# *INSOLUBLE FIBER*

- × It appears to speed the passage of foods through the stomach and intestines and adds bulk to the stool.
- × Insoluble fiber does not dissolve in water, but that's why it helps with constipation
- × Insoluble Fiber is found in...
  1. wheat bran
  2. Vegetables
  3. whole grains

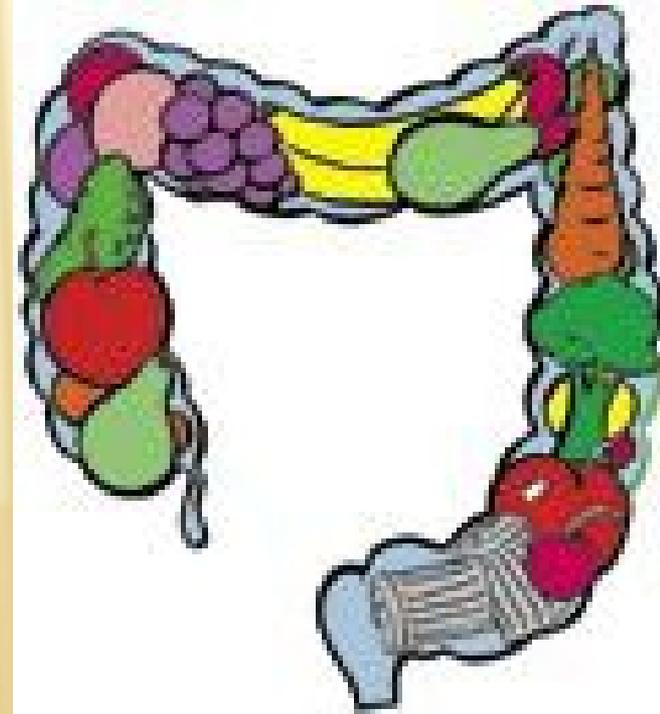
# SOURCES OF FIBER

Soluble Fiber	Insoluble Fiber
<ul style="list-style-type: none"><li>•oatmeal</li><li>•oat bran</li><li>•nuts and seeds</li><li>•legumes</li><li>•dried peas</li><li>•beans</li><li>•lentils</li><li>•apples</li><li>•pears</li><li>•strawberries</li><li>•blueberries</li></ul>	<ul style="list-style-type: none"><li>•whole grains</li><li>•whole wheat breads</li><li>•barley</li><li>•couscous</li><li>•brown rice</li><li>•bulgur</li><li>•whole-grain breakfast cereals</li><li>•wheat bran</li><li>•seeds</li><li>•carrots</li><li>•cucumbers</li><li>•zucchini</li><li>•celery</li><li>•tomatoes</li></ul>

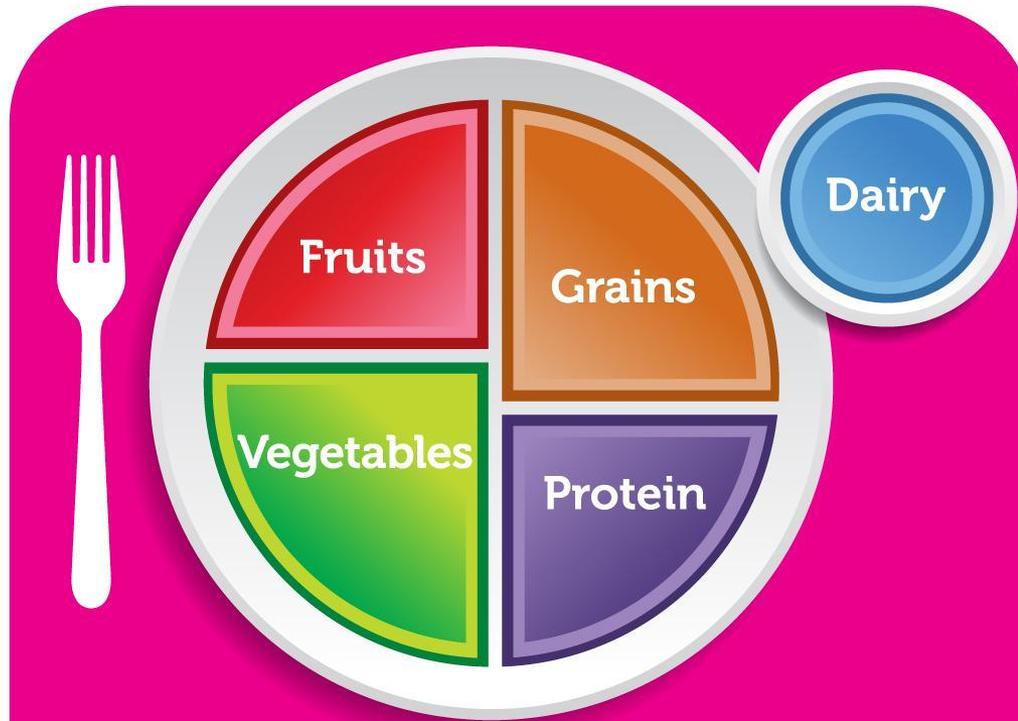
# RECOMMENDATIONS FOR FIBER CONSUMPTION

- ✗ From the American Heart Association, the table below provides an estimation of the amount of fiber you should eat each day.

<b>Gender/Age</b>	<b>Fiber (grams)</b>
1–3 years	19
4–8 years	25
9–13 years	
Female:	<b><u>26</u></b>
Male:	<b><u>31</u></b>
14–18 years	
Female:	29
Male:	38

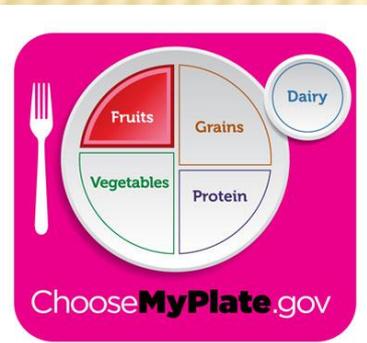
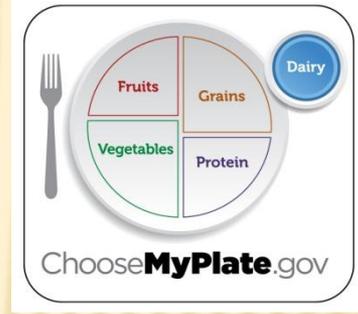
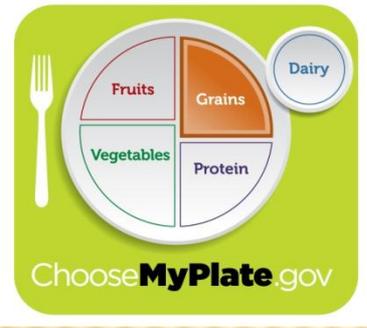


# MYPLATE



Choose **MyPlate**.gov

# Which Food group contains fiber from MyPlate?



# HOW MUCH FIBER IN THE FOLLOWING FOODS?



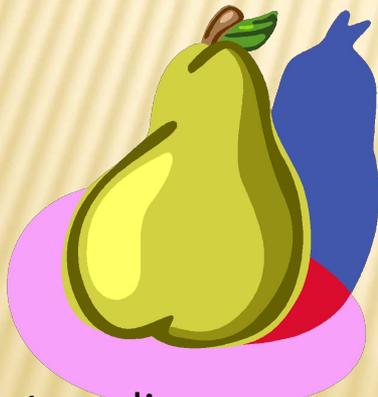
½ cup cooked peas:



1 cup Wheaties:



½ cup raspberries:



1 medium raw pear: 4



1 ounce almonds: 3.3



2 slices whole wheat bread:

# HOW DO YOU KNOW HOW MUCH FIBER A FOOD HAS?

Read the label!

Fiber has no calories and it can help you feel full. Check the label and pick foods that have at least 3 grams of fiber per serving.

Source: Kidshealth.org

**READ IT** before you **EAT IT!**

How many servings are you eating?

**Get What You Need!**

**Get LESS**  
5% or less is low  
20% or more is high

**Get ENOUGH**  
5% or less is low  
20% or more is high

**Nutrition Facts**  
Serving Size 1 cup (228g)  
Servings Per Container 2

Amount Per Serving  
Calories 250    Calories from Fat 110

% Daily Value*	
Total Fat 12g	18%
Saturated Fat 3g	15%
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
Protein 5g	
Vitamin A 4%	Vitamin C 2%
Calcium 20%	Iron 4%

\* Percent Daily values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories: 2,000	2,500
Total Fat	Less than 65g	80g
Sat Fat	Less than 20g	25g
Cholesterol	Less than 300mg	300mg
Sodium	Less than 2,400mg	2,400mg
Total Carbohydrate	300g	375g
Dietary Fiber	25g	30g

What food would have this Nutrition Facts label? Answer below!

**What's the Best Choice for You?**  
Use the **5%-20% Guide to Daily Values** to choose foods.

# **SOME TIPS FOR INCREASING FIBER INTAKE**

- 1. Eat whole fruits instead of drinking fruit juices.**
- 2. Replace white rice, bread, and pasta with brown rice and whole-grain products.**
- 3. Choose whole-grain cereals for breakfast.**
- 4. Snack on raw vegetables instead of chips, crackers, or chocolate bars.**
- 5. Substitute legumes (beans) for meat two to three times per week in chili and soups.**
- 6. Experiment with international dishes (such as Indian or Middle Eastern) that use whole grains and legumes as part of the main meal (as in Indian dahls) or in salads (for example, tabbouleh).**

# SNACKS HIGH IN FIBER

- × ½ cup cooked navy beans (9.5 grams of fiber)
- × ½ cup cooked lima beans (6.6 grams)
- × 1 medium baked sweet potato with peel (4.8 grams)
- × 1 whole-wheat English muffin (4.4 grams)
- × ½ cup of cooked green peas (4.4 grams)
- × 1 medium pear with skin (4 grams)
- × ½ cup raspberries (4 grams)
- × 1 medium baked potato with peel left on (3.8 grams)
- × ¼ cup oat bran cereal (3.6 grams)
- × 1 ounce almonds (3.3 grams)
- × 1 medium apple with skin (3.3 grams)
- × ½ cup raisins (3 grams)
- × ¼ cup baked beans (3 grams)
- × 1 medium orange (3 grams)
- × 1 medium banana (3 grams)
- × ½ cup canned sauerkraut (3 grams)

# Compare and Contrast

What is food number one? \_\_\_\_\_

Fill in the label to the right

What percent of the Daily Value does the fiber provide?

Which ingredients do you think contribute to the fiber in this food?

Why?

What is food number two? \_\_\_\_\_

Fill in the label to the right

What percent of the Daily Value does the fiber provide?

Which ingredients do you think contribute to the fiber in this food?

Why?

Based on your findings, which food choice has the greatest amount of fiber?

How might you select a snack with more fiber?

Nutrition Facts				
Serving Size				
Servings per Container				
Amount per serving				
Calories				
Calories from fat				
			% Daily Value*	
Total Fat	g		%	
saturated fat	g		%	
Cholesterol	mg		%	
Sodium	mg		%	
Total Carbohydrate	g		%	
Dietary Fiber	g		%	
Sugars	g			
Protein	g			
Vitamin A		%	Vitamin C	%
Calcium		%	Iron	%

Nutrition Facts				
Serving Size				
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Total Fat	g		%	
saturated fat	g		%	
Cholesterol	mg		%	
Sodium	mg		%	
Total Carbohydrate	g		%	
Dietary Fiber	g		%	
Sugars	g			
Protein	g			
Vitamin A		%	Vitamin C	%
Calcium		%	Iron	%

## Closure:

- ✘ *Today we discussed the types of fiber and the importance of it in our diet. Your ability to analyze labels for fiber content show that you can make smart choices in the future with high fiber foods to keep your heart and other organs healthy.*