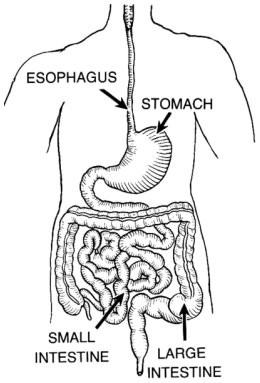
March 11, 2019

- The Digestive Process

Warm-Up

It takes approximately 12 hours for **food** to entirely digest.



Nutrition Facts

Serving Size 1 cup (8 fl oz) (265g)

Amount Per Serving

Calories 228	Calories from Fat 77
	% Daily Value*
Total Fat 9g	13%
Saturated Fat 5g	24%
Trans Fat	
Cholesterol 29mg	10%
Sodium 191mg	8%
Total Carbohydrate 28g	9%
Dietary Fiber 0g	0%
Sugars 22g	
Protein 10g	

Vitamin A	50%	Vitamin C	46%
Calcium	33%	Iron	20%

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

NutritionData.com

<u>Nutrients</u> are substances the body needs for energy, building materials, and control of body processes.

- Examples of Nutrients include:
  1) sugars (carbohydrates)
  2) fats (lipids)
  3) proteins
  4) vitamins
  5) minerals
  6) water

recall this from the wellness unit

- Sugars, fats, and proteins must be broken down into smaller, usable forms.

Chapter 5 DIGESTION

Digestion is the breakdown of foods into smaller components, which can be used by the body.

Two types of digestion

- Mechanical- physically breaking down food (large pieces are broken into smaller ones). It does not change the actual substances in the food

- Occurs in the mouth and stomach

i.e. chewing and grinding

- Chemical- food molecules are broken down into their chemical components
  - > Occurs mainly in the small intestine.

i.e. potatoes contain starches that as you chew are broken down into
smaller sugars like glucose that are used by the body

chemicals called **enzymes** help with the chemical digestion of food. They speed up the
digestion of food they combine with the large molecules in food and break them into smaller molecules.

Enzymes are very specific and can only break down one specific kind of food molecule.

i.e. enzymes that break down fat have no effect on carbohydrates.

Enzyme	What is digests	Where it is made
Amylase	carbohydrates	pancreas
Trypsin	proteins	pancreas
Lipase	lipids	pancreas, small intestine
Maltase	carbohydrates	small intestine
Peptidase	proteins	small intestine

Globe Biology Text
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