



# Nutrition - Nourishing Your Body



## Lesson Objectives

**Define** key words (Use own words)

**Explain** the six nutrients your body requires

**Explain** the difference between simple and complex carbohydrates

**Describe** the role fat and cholesterol play in body functioning

**Compare** saturated and unsaturated fats

**Describe** ways to reduce cholesterol levels

**Compare** the functions of vitamins, carbohydrates, fats and proteins

**Identify** food sources of vitamins and minerals

**Explain** the food label



## Key Words

**amino acids** - The basic units of proteins, produced by living cells or obtained as an essential component of a diet.

**complex carbohydrates** - A carbohydrate that is formed by the body after the conversion of extra glucose; it supplies the body with long-term energy.

**fat soluble vitamins** - A vitamin that is absorbed through the intestinal tract with the help of fats and is stored in the body.

**mono-unsaturated fats** - Oil or fat that is liquid at room temperature, is low in hydrogen, and can lower the level of blood cholesterol.

**poly-unsaturated fats** - An oil of fatty acid containing more than one double or triple bond and is therefore cholesterol defensive.



## Key Words (cont.)

**Referenced Daily Intake (RDI)** - Standards developed by the United States government for the regulation of vitamin and mineral requirements.

**saturated fats** - A fat that does not melt at room temperature and can raise the blood cholesterol level.

**simple carbohydrates** - a sugar that is found in the body in its simple state and supplied the body with short-term energy.

**water soluble vitamins** - A vitamin that is dissolved in the water of tissues.



## The six types of nutrients

- **carbohydrates**
- **fats**
- **proteins**
- **vitamins**
- **minerals**
- **water**



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# Complex carbohydrates

Complex carbohydrates provide vitamins, minerals, and fiber



Foods such as breads, legumes, rice, pasta, and starchy vegetables contain complex carbohydrates



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# Simple carbohydrates

Simple carbohydrates are found in foods such as fruits, milk, and vegetables

Cake, candy, and other refined sugar products are simple sugars which also provide energy but lack vitamins, minerals, and fiber





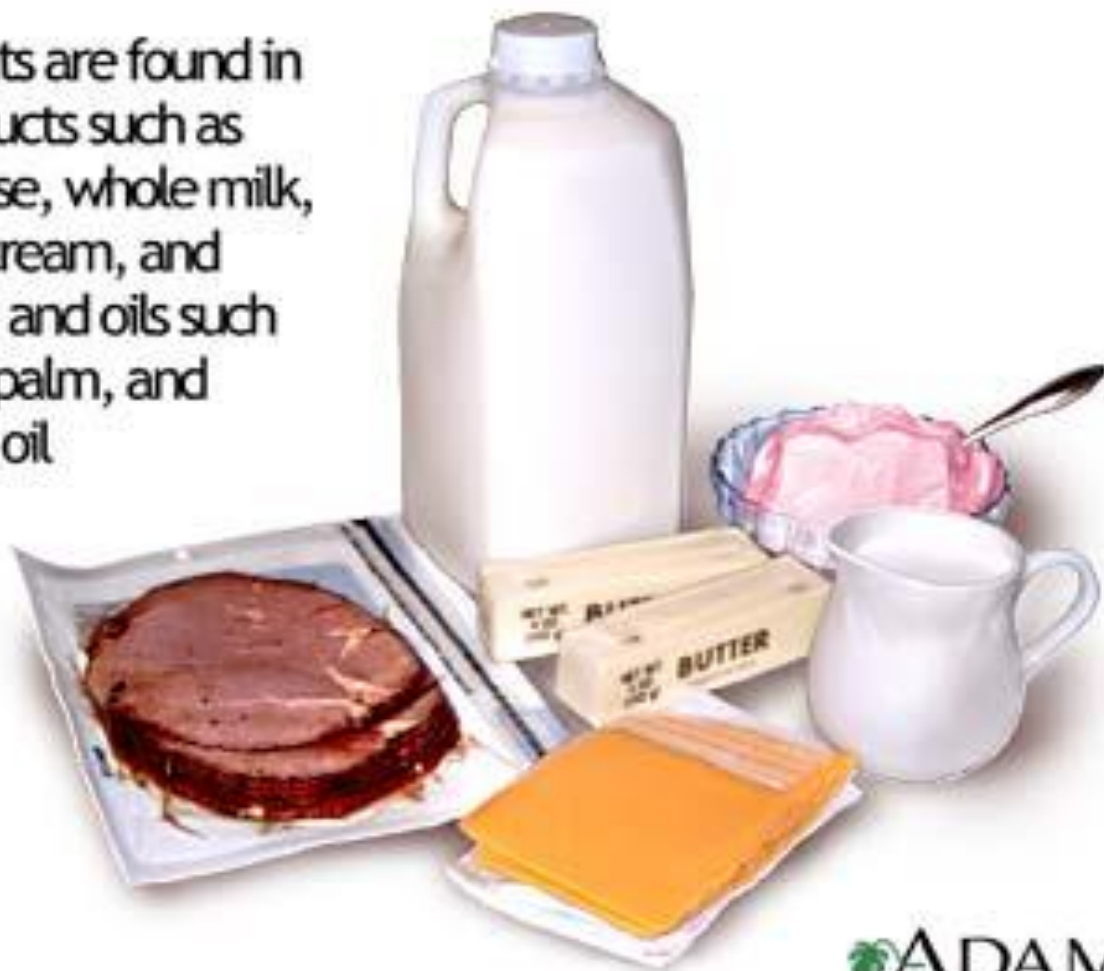
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## Saturated fats

Saturated fats are found in animal products such as butter, cheese, whole milk, ice cream, cream, and fatty meats, and oils such as coconut, palm, and palm kernel oil



 ADAM.





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## Trans-fatty acids

Trans-fatty acids are found in fried foods, commercial baked goods, processed foods and margarine



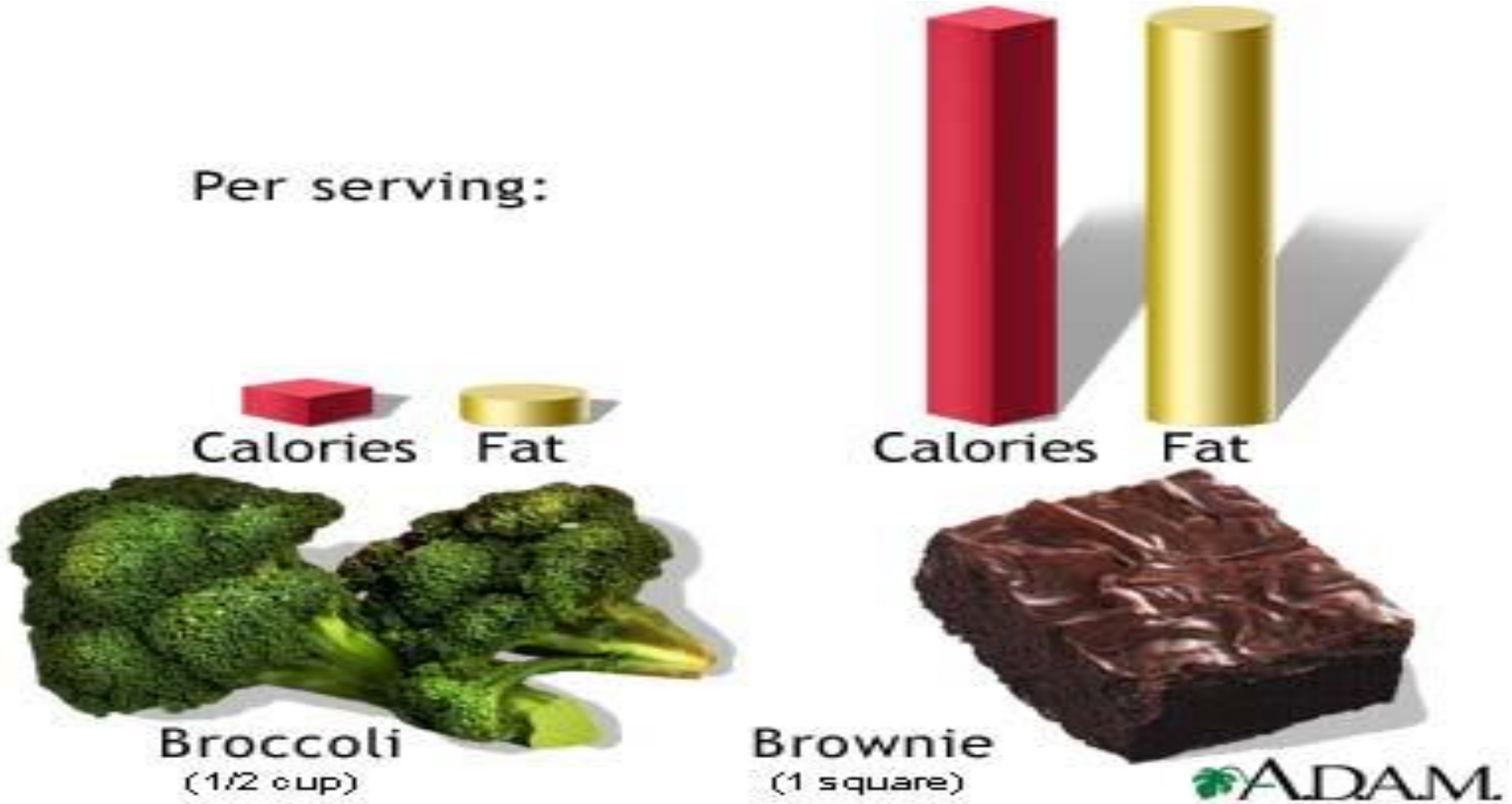


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Per serving:

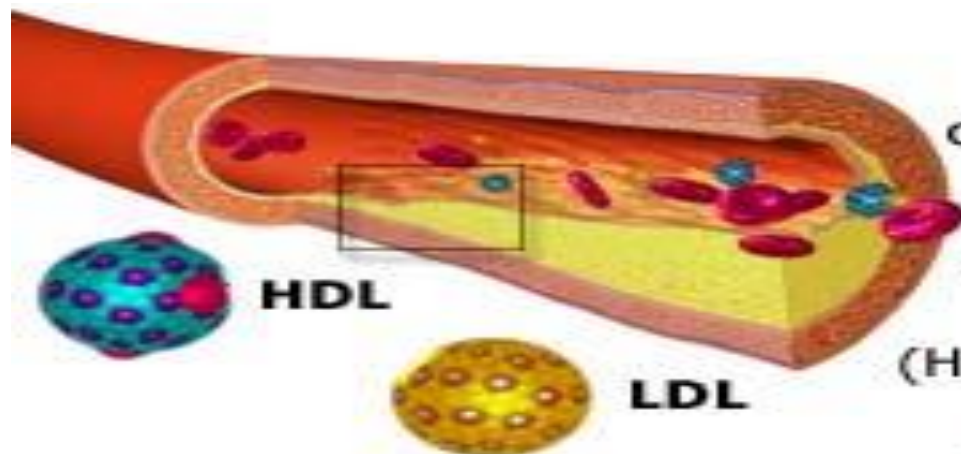


Food	Serving size	Calories	Fat (grams)
Broccoli	1/2 cup	12	0.2
Brownie	1 square	160	3

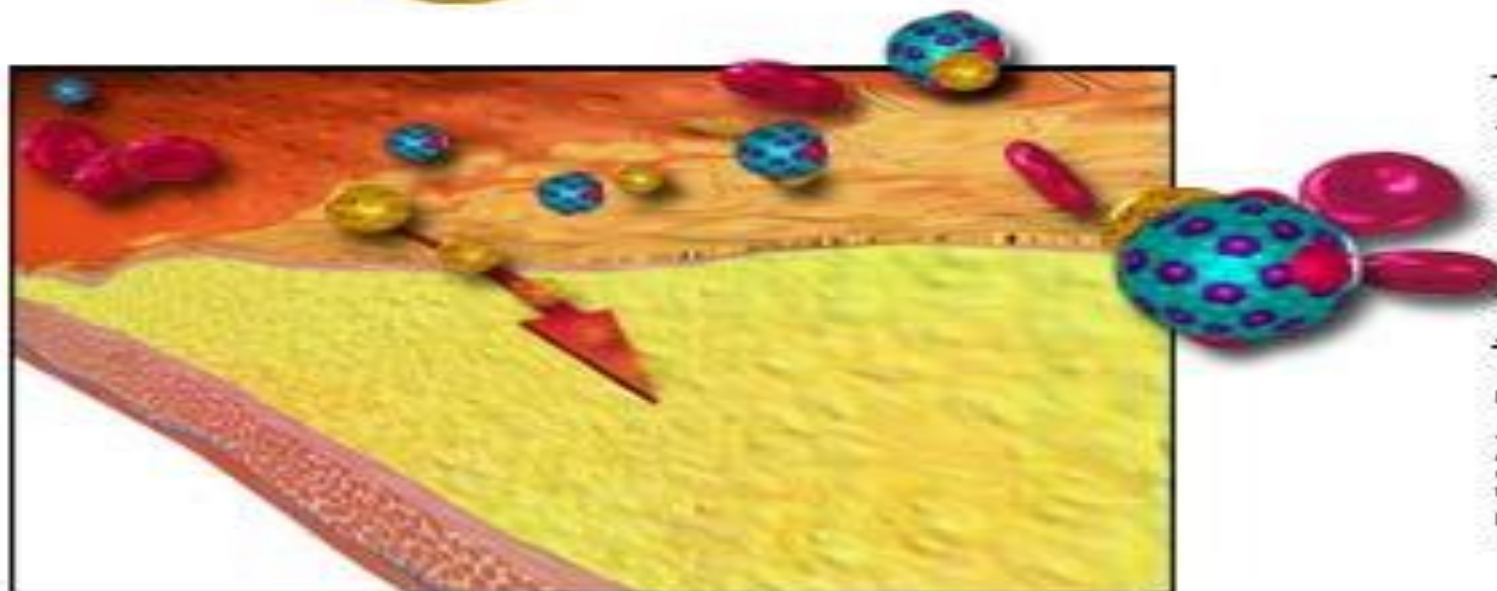


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**Cholesterol** is a waxy fat (lipid) carried through blood by lipoproteins. The two main types of lipoproteins are high density lipoproteins (HDLs) and low density lipoproteins (LDLs).



HDLs (good cholesterol) carry LDLs (bad cholesterol) away from artery walls. LDLs stick to artery walls and can lead to plaque build-up (atherosclerosis).

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## New FDA Food Pyramid





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Fish is great for people trying to lose weight:

- lean, low-calorie meat
- great source of protein
- contains omega 3





"*Nutrition Facts*" is the title of the label and lists the nutrients that address today's health concerns.

*Serving sizes* are the amounts people usually eat. If the serving size is 1/2 cup and you eat one whole cup, you'll need to double the calories, grams of fat and other nutrients to learn what you actually got in the serving.

*The list of nutrients* and amounts in each serving includes: total fat, saturated fat, cholesterol, sodium, protein, total carbohydrates and dietary fiber.

**Carbohydrate provides 4 calories per gram, protein provides 4 calories per gram, and fat provides 9 calories per gram.**

<b>Nutrition Facts</b>			
Serving Size 1 cup (228g)			
Servings Per Container 2			
<b>Amount Per Serving</b>			
<b>Calories 90</b>	<b>Calories from Fat 30</b>		
		<b>% Daily Value *</b>	
<b>Total fat 3g</b>			<b>5%</b>
Saturated Fat 0g			<b>0%</b>
<b>Cholesterol 0mg</b>			<b>0%</b>
<b>Sodium 300mg</b>			<b>13%</b>
<b>Total carbohydrate 13g</b>			<b>4%</b>
Dietary Fiber 3g			<b>12%</b>
Sugars 3g			
<b>Protein 3g</b>			
Vitamin A 80%		+ Vitamin C 60%	
Calcium 4%		+ Iron 4%	
*Percent Daily Values are based on a diet of 2,000 calories a day. Your daily value may be higher or lower depending on your caloric 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	Less than	300g	375g
Dietary Fiber		25g	30g

Calories per gram:  
Fat 9 • Carbohydrate 4 • Protein 4

*Calories from Fat* should be no more than 30 percent of your total daily calories. So, make most of your food choices low fat. Eating one high fat food or several in one day, might not be harmful. It's what you eat over the course of a week that counts! To know if a product contains 30 percent or less fat and is a smart choice, multiply the number of calories from fat by three. If the result is less than or equal to the total calories, the product is a winner. For example, here, the product label lists total calories as 90 and the calories from fat as 30; 30 x 3 equals 90, which is equal to the total calories, 90. This product is a winner.

*Percent Daily Values* tell you if a food is high or low in specific nutrients. Hint: If a food has a DV of 20 percent or more, it's considered high in that nutrient. Low means five percent or less. For a healthy heart, choose foods with low DVs for fat, cholesterol and sodium, and high DVs for fiber, vitamins and minerals.



## Summary

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