

Activity 1

Proteins and Fats

Fats and Cholesterol

Purpose: Compare HDL and LDL cholesterol and summarize the roles of fat and cholesterol in the body.

Directions: Suppose that you are a nutrition counselor. You are preparing to tell a client about the positive and negative effects of fats and cholesterol. To prepare for your meeting, you need to complete your notes. Fill in any words that are missing in the space provided.

Fats

Positive Effects

- _____ 1. Carry vitamins __?__, __?__, __?__, and __?__ to wherever they are needed in the body.
- _____ 2. Are needed for healthy skin and for normal __?__.
- _____ 3. Supply energy, cushion vital organs and protect them from injury, add flavor to food, and move through the __?__ system slowly helping you feel fuller longer.

Negative Effects

- _____ 4. High levels increase the risk of heart disease and __?__.
- _____ 5. High levels can cause a person to become __?__ or obese and increase his or her risk for other health-related problems.

Sources

<p>Contain high amounts of fats and cholesterol:</p> <ul style="list-style-type: none"> • Butter, margarine, oils • Cream, sour cream, salad dressing • Fried foods • Some baked goods, chocolate 	<p>Contain moderate amounts of fats and cholesterol:</p> <ul style="list-style-type: none"> • Some cuts of meat • Nuts and seeds, peanut butter • Egg yolks, whole milk, some cheeses
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Cholesterol

Two Types

- _____ 6. __?__, also known as “bad” cholesterol; a buildup in bloodstream increases risk of heart disease or __?__.
- _____ 7. __?__, also known as “good” cholesterol; picks up excess cholesterol and takes it back to the liver.

Sources of Cholesterol

- _____ 8. Made in the body and found in foods from __?__ sources.

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Chapter 7 Activity 1 (continued)

A Look at the Four Types of Fatty Acids

Saturated Fatty Acids

Special Benefit

None

Special Problem

_____ 9. Raise the level of LDL cholesterol in the ____.

Sources

_____ 10. Sources are meat, ____, and ____, including coconut oil, palm oil, and palm kernel oil.

Polyunsaturated Fatty Acids

Special Benefit

Seem to help lower cholesterol levels.

Special Problem

None

Sources

_____ 11. Sources include ____ oils, such as corn oil, soybean oil, and safflower oil.

Monounsaturated Fatty Acids

Special Benefit

Appear to lower LDL cholesterol levels and may help raise levels of HDL.

Special Problem

None

Sources

_____ 12. Sources include olives, ____, avocados, peanuts, peanut oil, and canola oil.

Trans Fatty Acids

Special Benefit

None

Special Problem

Raise the level of LDL in the bloodstream.

Sources

_____ 13. Sources include ____ manufactured fats, such as margarine, vegetable shortening, and any partially hydrogenated oil.

Activity 2**Proteins and Fats**

Calculating Protein and Fat Needs

Purpose: To compute recommended amounts of protein and fat based on daily calories.

Directions: For each person below, use the formulas in your text to calculate how much fat and protein each needs. Write your answers in the space provided. Show your calculations.

1. Susan, a 15-year-old girl, has been on a low-carbohydrate/high-protein diet. She has decided to add some more carbohydrates back into her diet but still wants to keep her fat and protein intake at a healthy level. (a) How much protein will meet Susan's needs (in grams)? (b) How much fat will meet Susan's needs (in grams)?

2. Mrs. Siano is building too much muscle when she works out. She has decided to reduce her protein and fat to the lowest possible amount. (a) How much protein will meet Mrs. Siano's needs (in grams)? (b) How much fat will meet Mrs. Siano's needs (in grams)?

3. Mr. Lowman, an average adult male, has been diagnosed with hypertension. His doctor has recommended that he reduce his protein and fat intake to the lowest healthy level. (a) How much protein will meet Mr. Lowman's needs (in grams)? (b) How much fat will meet Mr. Lowman's needs (in grams)?