

## Chapter 7

# Notes 3 - Macronutrients

# What's Your Health IQ?

## KNOWLEDGE

Which of the statements below are true, and which are false? Check your answers on p. 642.

- 1.** Eating too much protein, carbohydrate, or fat will make you gain weight.
- 2.** Peanut butter and potato chips are high in cholesterol.
- 3.** Fiber isn't important because it cannot be absorbed.
- 4.** You don't need to worry about getting enough vitamins and minerals because they are needed in such small amounts.
- 5.** Water is a nutrient.
- 6.** The Recommended Dietary Allowances are guidelines for the amounts of nutrients we need.
- 7.** Snacking is bad for you.

## ANSWERS

- 1.** TRUE
- 2.** FALSE—plant foods do NOT contain cholesterol.
- 3.** FALSE—fiber enables food to move through the intestines smoothly and efficiently
- 4.** FALSE—your body can't produce all vitamins and minerals so you need to eat them in your diet
- 5.** TRUE
- 6.** TRUE
- 7.** FALSE—choosing the right kind of snacks can provide energy and nutrients

# Chapter 7

## Section 1 Carbohydrates, Fats, and Proteins

### VOCAB:

### *Nutrition:*

- a) the science or study of food*
- b) the ways the body uses food*

### *Nutrients:*

- a) provide energy*
- b) form body tissues*
- c) necessary for life and growth.*



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## Section 1 Carbohydrates, Fats, and Proteins

### VOCAB:

***Calories:*** the amount of energy in food

### ***Metabolism:***

- a) All chemical processes in your body that keep you alive and active.
- b) Requires energy from carbohydrates, fats, and proteins



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## Section 1 Carbohydrates, Fats, and Proteins

### *Six Classes of Nutrients:*

- Carbohydrates (4 calories / gram)
- Proteins (4 calories / gram)
- Fats (9 calories / gram)
  
- Vitamins (0 calories)
- Minerals (0 calories)
- Water (0 calories)

*A Balanced Diet: Eating the right amount of nutrients from each class.*



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### Section 1 Carbohydrates, Fats, and Proteins

#### Nutrients that provide calories:

#### **Carbohydrates (4 cal/gm):**

- give you energy
- includes sugars, starches, and fiber

#### **Proteins (4 cal/gm):**

- made of amino acids
- builds and repair structures
- regulate processes in the body

#### **Fats (9 cal/gm):**

- the main form of energy storage in the body

**FYI: Alcohol has 7 calories / gram**

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## Section 2 Vitamins, Minerals, and Water

### Vitamins

- needed for overall health and cell growth
- **Fat-soluble vitamins** dissolve in fat.
  - can be stored in fat tissue and remain in the body for a long time.
  - *Toxicity is possible*
- **Water-soluble vitamins** dissolve in water.
  - They are not stored in the body
  - Excess is excreted in urine



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## Section 2 Vitamins, Minerals, and Water

### Minerals

- essential to maintain good health.
- Most people eat too much sodium.
- Most teens do not eat enough calcium.
  - found in green, leafy vegetables and in calcium-fortified foods.
- Iron-deficiency is a worldwide problem that causes anemia.
  - Red meats are rich in iron.





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## Section 2 Vitamins, Minerals, and Water

### Water

- essential for almost every body function that keeps you alive.
- About 60% of your body is water.
- you should take in at least 2.5 quarts of water each day (more in hot or dry climates, or when exercising).
- **MILD dehydration** can interfere with mental and physical performance (<2% body weight lost through sweat).
- **SEVERE dehydration** can have very serious consequences, including death.

