

Case Details

Case Title:

Fried

Author(s):

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Grade Level(s):

Middle School

Subject(s):

Life Science

Summary:

Bob loves his fried foods, and refuses to eat anything just for the health benefit. He lands in the hospital after strange pains in his left arm and his chest. Could Bob's high-fat diet have anything to do with him being in the hospital?

Suggested Citation:

Chatraw, J. H. (2008). *Fried*. Retrieved June 03, 2012 from Emory University, CASES Online Web site:

http://www.cse.emory.edu/cases/casedisplay.cfm?case_id=1866

Learning Objectives:

1. Explain mechanical and enzymatic modes of digestion.
2. Describe the flow of blood through the heart and through the body.
3. Explain how the circulatory system provides oxygen to the entire body.
4. Describe the food pyramid and use it to analyze a diet.
5. Identify and explain the functions of blood.
6. Explain how regular exercise is beneficial to overall and circulatory health.
7. Explain how the nutrients from food are utilized by the cells of the body.
8. Explain how the different components of food get into the body and subsequently to cells.
9. Identify the risk factors and symptoms of a heart attack.
10. Explain blood pressure and hypertension.
11. Define plaque, blood clot, and arteriosclerosis.
12. Identify and explain measures that should be taken to reduce the risk of heart attack.

National/State Standards:

Georgia Performance Standards

SCSh1. Students will evaluate the importance of curiosity, honesty, openness, and skepticism in science. (NSES Content Standard A)

S7CS7. Students will question scientific claims and arguments effectively. (NSES Content Standard A)

S7L2. Students will describe the structure and function of cells, tissues, organs, and organ systems. (NSES Content Standard C) a. Explain that cells take in nutrients in order to grow and divide and to make needed materials. b. Relate cell structures (cell membrane, nucleus, cytoplasm, chloroplasts, mitochondria) to basic cell functions. c. Explain that cells are organized into tissues, tissues into organs, organs into systems, and systems into organisms. d. Explain that tissues, organs, and organ systems serve the needs cells have for oxygen, food, and waste removal. e. Explain the purpose of the major organ systems in the human body (i.e., digestion, respiration, reproduction, circulation, excretion, movement, control, and coordination, and for protection from disease).