

### MALNUTRITION AND OBESITY





- 1. Compare the two pictures. Work in pairs. Everyone will talk for one minute. Try to keep talking; avoid any long gaps.
- 2. What are the different ways that people can lose weight?
- 3. Which one of these ideas is the most effective and why?

# **OBESITY EPIDEMIC**

4. Listen to the recording about people being overweight (Obesity epidemic). http://www.bbc.co.uk/worldservice/learningenglish/newsenglish/witn/2008/02/080220 obesity.shtml

Which of our ideas are mentioned in the text?

5. Skim the text "Obesity epidemic" to check your answer. (see page 2)

#### How to skim the text:

Read the text (1-2') to find the answer to the question. You do not need to understand the details of the text to answer it.

6. Comprehension questions (T/F)

Complete Worksheet l to understand the text in more detail. Read the text a second time in more detail and answer the questions. (5-6')

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# **OBESITY and GENETICS**

# 7. Discuss the following questions

What are some of the factors that contribute to the obesity problem in our society?

If someone asks you if obesity is genetic, how would you respond?

What is leptin, and what role does it play in weight gain?

What role does the melanocortin 4 receptor, or MC4R, play in obesity?

## 8. Listen to the recording. Have you found the answers there?

## Homework (IS -Nutrition section):

Obesity – logical connections /el/1431/jaro2010/JAB02/odp/Obesity.qref (one point per item)

Obesity - translation/el/1431/jaro2010/JAB02/odp/Obesity translation.qref (no points)

## **Obesity epidemic**

The world needs to tackle the growing epidemic of obesity with the same sense of global urgency as climate change. The head of the international obesity taskforce, Professor Philip James, said that we needed greater political leadership at the international level. This report from Matt McGrath:

The scale of the **obesity epidemic** is such that the world needs **a global pact** on the best ways to tackle it. At present, according to Professor Philip James, an expert on **nutrition**, **obese children outnumber the malnourished by two to one**. This worldwide weight gain is **sparking a marked rise** in some diseases - the number of people with type two **diabetes** is expected to double to 366 million by 2030.

According to Professor James, there is no point in blaming individuals for being overweight - we need real political leadership to change the environment that is rapidly making the world fat. The fat content of food needs to be labelled clearly, advertisers must be prevented from targeting children and governments must encourage people to get out of their cars.

Professor James also said that new data from Scandinavia indicates that the weight of a child at the age of 7 to 12 **predicts whether or not** they are going to die early from heart disease or other problems.

Matt McGrath, BBC News, Boston, Massachusetts

#### References:

- Teachers' Domain, The Role of Genetics in Obesity, published September 10, 2008, retrieved on February 28, 2010, http://www.teachersdomain.org/resource/oer08.sci.life.gen.obesity/
- http://www.bbc.co.uk/worldservice/learningenglish/newsenglish/witn/2008/02/080220 obesity.shtml



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INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

the heart pumps blood through... to
to provide oxygen, nutrients, metabolic
products
to remove wastes
the heart receives blood from
the blood passes into, through
the blood picks up oxygen
the blood loses carbon dioxide

to transmit the blood back to the heart the blood travels to the left ..., the blood travels out through ... arteries conduct the blood throughout ... the blood distributes... the blood receives ... the blood enters ... veins carry the blood back to the heart

Adapted from: <a href="http://www.britannica.com/EBchecked/topic/95628/cardiovascular-system">http://www.britannica.com/EBchecked/topic/95628/cardiovascular-system</a> Accessed March 7, 2010

### 1. Answer the questions

- a. What are the three types of blood vessels?
- b. In which circuit does blood take up oxygen in the lungs?
- c. In which circuit is oxygenated blood distributed to body tissues? ,

# 2. True or False?

- a. Arteries carry blood away from heart at high pressure.
- b. Capillaries allow exchange of materials between blood and tissues.
- c. Veins return high pressure blood to heart.
- d. Red blood cells transport oxygen.
- e. White blood cells protect against clotting.
- f. Blood platelets help the blood to disease.



### **Heart Disease: Treat or Prevent?**

One of the greatest killers in the Western world is heart disease. The death rate from the disease has been increasing at an alarming speed for the past thirty years. Today in Britain, for example, about four hundred people a day die of heart disease. Medical experts know that people can reduce their chances of getting heart disease by exercising regularly, by not smoking, and by paying attention to their diet, but Western health-care systems are still not paying enough attention to the prevention of the disease. There is an urgent need for more programs to educate the public about the causes and prevention of heart disease. Instead of financing such programs, however, the U.S. health-care system is spending enormous sums of money on the surgical treatment of the disease after it develops.

This emphasis on treatment is clearly associated with the technological advances that have taken place in the past ten to fifteen years. In this time, modern technology has enabled doctors to develop new surgical techniques and procedures. Many operations that were considered impossible or too risky a few years ago are now performed every day in U.S. hospitals. The result has been a massive increase in heart surgery

Although there is no doubt that a large number of people benefit from heart surgery, critics of our health-care systems point out that the emphasis on the surgical treatment of the disease has three clear disadvantages. First it attracts interest and financial resources away from the question of prevention. Second, it causes the costs of general hospital care to rise. After hospitals buy the expensive equipment that is necessary for modern heart surgery, they must try to recover the money they have spent. To do this, they raise costs for all their patients, not just those patients whose treatment requires the equipment. The third disadvantage is that doctors are encouraged to perform surgery—even on patients for whom an operation is unnecessary—because the equipment and surgical expertise is available. A federal government office recently concluded that major heart surgery was often performed even though its chances of success were low. In one type of heart surgery, for example, only 15 percent of patients benefited from the surgery. However, more than 100,000 of these operations are performed in the United States every year.

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### 1. Identify the key idea.

Choose the sentence that best expresses the main idea of this passage.

- a. People can reduce their chances of heart disease by exercising regularly, by not smoking, and by paying attention to good nutrition.
- b. Modern technology is allowing doctors to perform new types of surgery on people who are suffering from heart disease.
- c. In the West, especially in the United States, we tend to emphasize the surgical treatment of heart disease; this has a number of clear disadvantages.

#### 2. Task

- 1. Everyone is satisfied with the way Western health-care systems are attacking the problem of heart disease. True / False
- 2. Western health-care systems are spending too much money to educate people about the causes of heart disease. True / False
- 3. According to the critics of the U.S. health-care system, where does more emphasis need to be placed?
  - a. on preventing heart disease
  - b. on treating heart disease
  - c on developing new surgical techniques for heart operations d. on buying high-technology equipment for heart surgery
- 4. What is not true about heart surgery in the United States?
  - a. It helps some patients.
  - b. It is now being performed more often than in the past.
  - c It keeps medical costs down.
- 5. What effect, or effects, is modern technology having on medicine?
  - a. It is a factor in the rising costs of medical treatment.
  - b It has clearly helped save the lives of patients.
  - c. It makes some operations impossible.

Source: Pakenham, J. Making Connections, CUP