LASERS IN MEDICINE

A laser is a very strong beam of light which is very different from ordinary light. Today, doctors use lasers in some eye operations. They use them when operating on a patient who has a detached (i.e. separated) retina. The retina is the inner back part of the eye, the part that senses light. Light from an object must strike the retina for seeing to occur.

In the past, a detached retina caused blindness in the eye. Now, the laser makes delicate eye operations possible, and a detached retina no longer means the loss of sight. By carefully directing this super light beam, the doctor can weld the retina to the rest of the eye again. The welding of the retina takes less than a thousandth of a second and is done without anesthesia. Anesthetizing the patient is not necessary, because the patient feels no pain.

Doctors also want to use lasers in operations on people who have heart diseases. In the United States and Canada alone, more than 1.5 million people suffer from heart diseases every year. Most of these are related to the flow of blood through the coronary arteries, which supply the majority of the blood to the heart. People who have a heart disease have a high amount of cholesterol in their blood. Cholesterol builds up fatty deposits called 'plaques' on the inner walls of the arteries. As the plaques get bigger, the opening of the artery gets smaller. When it is completely closed, blood stops flowing and the heart attack occurs.

Some doctors are planning to use lasers to destroy these fatty deposits in the near future. More studies are needed, but some doctors feel this plan will be beneficial for heart patients. At present, though, lasers have many other uses in hospitals; they are used in sterilizing instruments, stopping bleeding and removing birthmarks.

A. What do the following refer to?

1. 'them' (line 3):_____
2. 'these' (line 16):_____
3. 'this plan' (line 26):_____

B. Scan the text and find the definitions of the following.

1. retina:_____
2. plaques:_____

C.

1. What are the present uses of lasers in hospitals?
   a)_____
   b)_____
   c)_____
   d)_____
2. How are doctors planning to use lasers in the future?

3. How can doctors weld the retina to the eye again?

4. When do heart attacks occur?

D. Mark the statements as True (T) or False (F).

_____1. In the past, it was impossible to avoid blindness caused by a detached retina.

_____2. The welding of the retina still requires a long and difficult operation.

_____3. Medicine is given to the patient to reduce pain in eye operations with laser.

_____4. Most blood reaches the heart through the coronary arteries.

_____5. Cholesterol can leave fatty deposits in the arteries.

LIVEWORKSHEETS