

How Good Are You At the Language of Cause and Effect?

Test your ability to read and write the language of cause and effect. Read the following short essay and do the tasks that follow it.

Health Risks of Cigarette Smoking

Modern lifestyles are increasingly leading to problems of health. More and more one hears about illnesses caused by poor diet and lack of exercise. The pressures of daily life often cause or exacerbate psychological disorders or lead to severe stress and stress-related illnesses. In many cases it is impossible to remove the causes of these health problems. However, one proven cause of serious health problems that is not beyond the individual's control is cigarette smoking. Although it is not easy to do, a smoker can decide to give up smoking, and effective medical and psychological assistance is available for those who wish to do so. Those who continue to smoke, however, will, sooner or later, almost inevitably suffer the consequences of their habit. There are two very serious medical consequences of cigarette smoking.

Inhaled cigarette smoke clogs the natural filters in the windpipe. As a result of this clogging, particles and other impurities begin to accumulate there. In addition, the lungs also become clogged with impurities. As these impurities, including tar and smoke particles, build up in the lungs, they infect the system of pipes conducting air from and to the lungs. The smoke-borne impurities are instrumental in the formation of cancer cells. Another result of smoke damage is the loss of elasticity of the lungs, which can no longer efficiently pass oxygen to the blood supply. It is thought that the potentially fatal disease emphysema may result from this inability of the lungs to function efficiently.

In addition to diseases of the lungs, medical scientists have noted an alarming increase in diseases of the heart and circulation among people who smoke cigarettes. It has been found that the presence of tobacco in the blood stream causes blood vessels to contract, thus slowing circulation, which eventually leads to hardening of the arteries. As the arteries stiffen, less blood reaches the brain, and the end result of this slowdown is a "stroke." In addition, tobacco in the blood stream reduces the ability of the haemoglobin to release oxygen, resulting in shortness of breath. The lack of oxygen forces the heart to beat faster – that is, the pulse rate increases – and this in turn accelerates the risk of a heart attack.

Heart attacks, strokes, lung cancer, and other serious diseases are common consequences of cigarette smoking. Although these are among the most serious effects of this habit, they are by no means the only ones. In addition to medical consequences, there are also social, psychological, and economic consequences of smoking. Because of the dangers of second-hand smoke as well as the unpleasant odour associated with smokers, smoking has been banned from most public areas in Canada and many other countries. Smokers are increasingly becoming pariahs in the societies where they live and work, and this often causes unpleasant psychological consequences, such as loss of self esteem. Finally, it is an increasingly expensive habit that few smokers can easily afford.

(Adapted from: Arnaudet, M. & Barret, M. (1981). *Paragraph Development: a Guide for Students of English as a Second Language*. Englewood Cliffs, Prentice-Hall.)

Tasks: 1. Identify all the words and phrases that indicate a cause – effect relationship.

2. Using information from the essay, complete the following flow diagrams:

Smoke tobacco → impurities clog the filters in the windpipe →

Smoke tobacco → impurities get into the blood →

3. Rewrite the following sentences, following the algorithms. Replace X and Y with the appropriate information from the sentences. The first one is done as an example:

- a. It has been found that the presence of tobacco in the blood stream causes blood vessels to contract, thus slowing circulation, which eventually leads to hardening of the arteries.

Hardening of the arteries ← Y ← X

Hardening of the arteries 7 contraction of the blood vessels 7 tobacco in the blood

- b. The lack of oxygen forces the heart to beat faster – that is, the pulse rate increases – and this in turn accelerates the risk of a heart attack.

Heart attack ← X ← lack of oxygen

- c. Inhaled cigarette smoke clogs the natural filters in the windpipe. As a result of this clogging, particles and other impurities begin to accumulate there.

Y ← X

4. Break the following sentences apart. Write a separate sentence for each cause – effect unit.

- e.g. More and more one hears about illnesses caused by poor diet and lack of exercise.

More and more one hears about illnesses.

The illnesses are caused by poor diet and lack of exercise.

- a. One proven cause of serious health problems that is not beyond the individual's control is cigarette smoking.
- b. It has been found that the presence of tobacco in the blood stream causes blood vessels to contract, thus slowing circulation, which eventually leads to hardening of the arteries.
- c. Tobacco in the blood stream reduces the ability of the haemoglobin to release oxygen, resulting in shortness of breath.

5. Express the following algorithms in words. The first one has been done as an example.

X → Y

(X leads to Y; X causes Y; X results in Y; X is the cause of Y, etc.)

X → Y → Z

Y ← X

Z ← Y ← X