



COMFACET
Kompetence v jazykovém vzdělávání

INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

COMMON DISEASES AND AILMENTS

1. There is no end in sight in the battle between human beings and the diseases that can destroy them. However, in the 20th century, the nature of the enemy has changed dramatically. In countries where modern medical facilities are available, infectious diseases that were once widespread killers can now be prevented or diagnosed early and cured. Thanks to vaccines, antibiotics, and improved sanitation, most of the dreaded epidemics of the past are not likely to recur.
2. Today's major killers are **noninfectious diseases** - especially the various forms of cardiovascular disease and cancer. As life expectancy increases, people are more likely to succumb to degenerative conditions that the aging body is susceptible to. In addition, many factors of modern life- such as environmental pollution, occupational hazards, stress, a sedentary lifestyle, an unhealthy diet, the use of cigarettes, drug and alcohol abuse - contribute to the development of disease.
3. One of the most common serious afflictions in modern society is **heart disease**. This general label encompasses many different abnormal conditions, including **congenital heart defects** (many of which can be repaired surgically), diseases of the pericardium (the tissue surrounding the heart muscle), and diseases affecting the heart muscle itself (the myocardium). Physicians can often detect or predict heart problems by measuring the rate of the heartbeat (called the **pulse**) and by taking the patient's **blood pressure**. Another important diagnostic tool is the **electrocardiogram** (EKG), a record of the electrical activity of the heart, which can reveal abnormal cardiac rhythm and myocardial damage. When heart disease is suspected and more detailed information is needed, an **angiogram** is ordered. This series of X-ray films (taken after the injection of a radiopaque substance) defines the size and shape of various veins and arteries.
4. The most common cardiovascular disease is **atherosclerosis** (hardening of the arteries). Atherosclerosis of the coronary arteries may cause the development of a **coronary thrombus** (blood clot), which blocks the flow of blood to the heart muscle. If, as a result, part of the heart muscle dies, the condition is called **myocardial infarction** (a heart attack). Some symptoms and signs of a heart attack are pain in the chest (and sometimes also in the jaws and arms), shortness of breath, irregular pulse, nausea, and perspiration. Prompt cardiopulmonary resuscitation can save victims from sudden death. Among the emergency procedures used is a technique known as **percutaneous transluminal angioplasty** (PTA). This technique widens coronary arteries that have become dangerously narrow due to deposits (called plaque) on their interior walls. The procedure involves manipulating a **catheter** (flexible tube) into the constricted vessel, then inflating a small balloon at its tip, thereby compressing the plaque and widening the passage. This procedure can sometimes substitute for a much more traumatic one - **bypass surgery**.
5. When atherosclerosis affects the carotid and vertebral arteries (which supply blood to the brain), a **stroke** may result, causing paralysis (**paralytic stroke**) and sometimes affecting speech and brain function. Atherosclerosis can also weaken the aorta wall, causing it to develop a balloon-like structure called an **aneurysm**. Large aneurysms can rupture, causing fatal **hemorrhage**. Patients can decrease the likelihood of developing atherosclerosis by cutting down on their consumption of fats, cutting out cigarettes, and getting adequate exercise.
6. Less serious but still frightening is the condition called **angina pectoris**, chest pains that occur when the heart muscle does not get enough oxygen (often because of a temporary spasm of a vessel). An attack is usually caused by overexertion and can be relieved by rest and nitroglycerin tablets.

7. Patients with various kinds of heart conditions may be treated medically with many different drugs including **anticoagulants** to reduce the chance of blood clotting, beta blockers to reduce high blood pressure, or digitalis to increase the force of the heart's contractions. Surgical treatments include repair or replacement of valves or arteries, insertion of a pacemaker to regulate heartbeat, or even the substitution of an artificial or a transplanted human heart for the patient's diseased one.

8. The relationship between cardiovascular disease and **hypertension** (high blood pressure) is well known, so patients with high blood pressure are generally placed on a regimen including a low-salt diet, regular exercise, and sometimes medication that will bring the blood pressure down to within normal limits.

9. Another major killer is **cancer**. Cancer is characterized by an unrestrained growth of abnormal cells. There are three main types of cancer: a **carcinoma** originates from the surface cells of the skin or the linings of the internal organs; a **sarcoma** attacks the muscles, bones, tendons, cartilage, fat, blood vessels, lymph system, or connective tissue; **leukemias** afflict the blood-forming cells. Some cancers grow slowly; others spread rapidly, doubling in bulk in days. Cancer can appear anywhere in the body, but some common sites are the lungs, breasts, uterus, skin, colon, prostate, and blood. Symptoms vary greatly depending upon the location, but some of the most common symptoms are unusual bleeding or discharge, a thickening in any area, a sore that doesn't heal, hoarseness or difficulty swallowing, indigestion, a change in bowel or bladder habits, or unexplained weight loss.

10. Today, many types of cancer can be cured, especially if detected early. For this reason, many diagnostic procedures - such as a **biopsy, mammogram, or colonoscopy** (examination of the large intestine) or other internal examinations - are employed when cancer is suspected. A localized malignancy is sometimes treated and cured by surgery alone, but sometimes **radiation** or **chemotherapy** (drug or chemical treatment) is used in combination with surgery. A malignancy that has **metastasized** (spread from its place of origin to another organ or site) requires higher doses of chemotherapy and/or radiation and is more difficult to cure.

11. The **etiology** of many types of cancer remains an enigma to scientists. Some of the causes are known, however, including cigarette smoking, overexposure to X-rays or sunlight, and contact with certain chemicals. Some forms of cancer seem to run in families; others may be caused by a virus.

12. The neuromuscular systems in the body can be affected by a number of diseases. These diseases all cause a loss of muscular control by disturbing the nerves which control the muscles. In **muscular dystrophy**, a chronic and inherited disease, the muscles gradually **atrophy** (waste away). A patient with **Parkinson's disease** often exhibits uncontrollable shaking caused by basal ganglion dysfunctions. **Multiple sclerosis** victims suffer from a loss of muscular coordination in various parts of their bodies because of damage to nerve fibers. Unfortunately, none of these diseases is curable at present.

13. A disease that attacks the kidneys is **nephritis**. There are many different types and many causes of nephritis, including bacteria and toxins. If the disease becomes severe enough to destroy the kidneys, the victim can be saved through the transplantation of a donor's kidney or by regular use of a renal **hemodialysis machine**. This machine substitutes for the kidneys, cleansing the body of its liquid wastes.

14. **Diabetes mellitus** is a disease in which the body no longer uses sugar properly. In a healthy body, special cells in the pancreas secrete the hormones insulin and glycogen, which help to store sugar. In the body of a diabetic, these hormones are inadequately produced or utilized. The disease is usually diagnosed by the discovery of sugar in the urine and abnormally high levels of sugar in the blood. If the disease is not controlled, serious complications can develop affecting the eyes, kidneys, and circulatory system. Treatment is usually a combination of a carefully regulated diet, regular exercise, and sometimes insulin injections.

15. **Arthritis and rheumatism** are general names for approximately 100 diseases that produce inflammation or degeneration of connective tissue. Some of these diseases are infectious and primarily affect younger people. **Rheumatic fever**, for example, is a bacterial infection that occurs mostly in children or teenagers. Rheumatoid arthritis predominantly strikes women between 20 and 60. However, the most common rheumatic disease is a noninfectious, non-inflammatory degenerative joint disease - **osteoarthritis**. To some degree, it affects nearly all older adults, causing swelling, pain, and stiffness in joints. Treatment may include heat, exercises, and drugs that reduce pain and inflammation.

16. Besides osteoarthritis, many other noninfectious diseases can limit the activities of the elderly. **Osteoporosis** (a condition in which bone loss exceeds bone replacement so that the bones become less dense, more porous, and more brittle) often leads to fractures, especially of the hip bone. Many conditions conspire to decrease the sensory perception of the elderly. **Cataracts** (created when the lens of the eye - or a portion of it - becomes opaque and sometimes swells or shrinks) interfere with vision. Deterioration of nerves in the inner ear causes the characteristic old-age hearing loss, most severe in the high-pitched tones. The senses of taste and smell also deteriorate in old age.

17. But what many elderly people fear most is the **loss of mental abilities**. Confusion, memory loss, and inability to distinguish between reality and fantasy (dementia) are all symptoms that can be caused by damage to the brain. They may result from external injury, a stroke, or deterioration of brain cells due to inadequate blood and oxygen supply. One common cause of severe mental deterioration is Alzheimer's disease, a neurological brain disorder in which there are a variety of abnormal chemical changes in the brain and characteristic nerve cell "tangles."

18. People of all ages suffer from a variety of allergic conditions. An **allergy** is an altered reaction of body tissues to a substance which produces no effect upon a non-sensitive person. The substance causing the allergic reaction is called an **antigen**. The antibody reaction (often the release of histamine) generally makes the person feel sick or uncomfortable. Some people have food allergies (commonly to eggs, strawberries, chocolate, or nuts), and these are likely to cause skin rashes. Others are allergic to airborne particles (inhalants such as dust or pollen). These affect the respiratory tract and cause conditions such as **asthma, hay fever, or allergic rhinitis**. Another source of allergies is **contactants** (for example, wool or chemicals that come in contact with the skin). Allergies to specific drugs (penicillin, for example) are also common. Sometimes allergic reactions can be severe and lead to medical emergencies, especially if they interfere with breathing. However, most can be controlled with medication (often antihistamines). Of course, the best way to control an allergic condition is to avoid contact with the antigen, if possible.

19. Among contagious diseases, many of the major killers of the past, such as tuberculosis or smallpox, are no longer widespread problems. Today, to test for TB, a simple skin test is widely given periodically as part of a routine medical checkup. Another infection of the lungs, **pneumonia**, is also much less dangerous than it once was, thanks to antibiotics

20. Diseases that are common in childhood include **chickenpox, measles, mumps, diphtheria, and whooping cough**. Children are routinely immunized against most of these, as well as against **tetanus**.

21. Many diseases are sexually transmitted diseases (STD). These include gonorrhea, syphilis, genital herpes, candidiasis (a yeast infection), and others. The most frightening of them is **Acquired Immune Deficiency Syndrome (AIDS)**. This fatal disease is spread by direct sexual contact or exchange of blood (for example, by use of a contaminated hypodermic needle). AIDS destroys its victim's immune system, leaving the patient unprotected against infections that healthy people could fight off. The various "opportunistic infections" common among AIDS patients include a rare type of pneumonia and an unusual form of cancer called *Kaposi's sarcoma*. "An ounce of prevention is worth a pound of cure" is an expression that especially applies to AIDS, not only because the use of condoms and sterile needles can protect people from the

disease, but also because at present there is no cure. Since a person can be a carrier of the **HIV (human immunodeficiency virus)** long before symptoms appear, people at risk are urged to take a blood test for diagnosis.

I. Answer the following questions:

1. What causes stroke, and what may be the result?
2. If a patient has a broken arm in a cast for several weeks and cannot use the arm, what may happen to the muscles?
3. What does the prefix *anti-* mean? Name three drugs that begin with this prefix, and tell their uses.
4. Is an angiogram used for diagnosis or treatment?
5. Is angioplasty a surgical or a medical procedure?
6. What does a person's pulse rate indicate?
7. What medication is often used to treat diabetes?
8. How can a person survive without functioning kidneys?
9. Give characteristics of these ailments: angina pectoris, aneurysm, heart attack, osteoporosis, atherosclerosis, AIDS.
10. What do the abbreviations PMS, AIDS, HIV, TB, PTA stand for?
11. What are some of the common sites of cancer in men? In women?
12. What are some different types of heart disease, and how are they treated?

II. Choose the correct word to complete each sentence.

1. A tuberculin skin test is used for _____. (A. diagnosis B. treatment C. vaccination D. cure)
2. One abnormal condition which is not common among elderly patients is _____.
(A. cataracts B. atherosclerosis C. hypertension D. acne)
3. A disease that may be fatal if not detected and treated early is _____.
(A. arthritis B. acne C. cancer D. headache)
4. A disease that affects the neuromuscular system is _____.
(A. diabetes B. leukemia C. nephritis D. multiple sclerosis)
5. A vaccine can provide immunity against _____. (A. tuberculosis B. poliomyelitis C. dystrophy D. cancer)
6. One ailment that attacks the intestinal tract is _____. (A. mumps B. angina C. diarrhea D. Parkinson's disease)
7. Which of the following is not transmitted through sexual contact? (A. AIDS B. diabetes C. gonorrhea D. syphilis)
8. Which of the following is not usually a sign of an allergy? (A. sneezing B. a rash C. difficult breathing D. hiccups)
9. Many varieties of _____ cause pain, swelling, and stiffness in the joints.
(A. dysentery B. dementia C. rheumatism D. diphtheria)

10. Which one of the following is not an infectious condition?

(A. tuberculosis B. hay fever C. polio D. chickenpox)

Adapted from:

<http://www.buzzle.com/articles/diseases-and-disorders/>