

**THE EFFECT OF ELECTRONIC CIGARETTES ON THE BODY**

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**Introduction.** The debate about the dangers and benefits of electronic cigarettes (e-cigarettes) continues to this day. On the one hand, manufacturers and marketers convince consumers of the safety of the system and the advantages over regular smoking. And on the other hand, there are people who are concerned about the rapid growth in popularity of a little-studied hobby. Vaping is positioned as a safer alternative to smoking cigarettes, but there is no safety data available.

**The purpose of the study.** To study the effect of vaping vapors on the human body.

**Materials and methods.** The analysis of medical and scientific research aimed at studying the composition of the ES liquid and its effect on the human body has been carried out. Analytical and systematic methods were used.

**Results.** The main danger of e-cigarettes is what is contained in the inhaled vapor of these cigarettes. These devices have the same principle of operation — they heat the liquid in the combustion chamber, which leads to the formation of steam. This solution consists of glycerin and propylene glycol, as well as aromatic additives, some contain nicotine. Thus, the principle of operation of a vape is similar to an inhaler: liquid heats up inside the device, which leads to the formation of steam, which contains toxic substances. The danger is precisely the compounds that are formed when propylene glycol and glycerin are heated: formaldehyde, acetaldehyde, acrolein and glyoxal. Formaldehyde and acetaldehyde are dangerous carcinogens.

Acrolein can irritate the respiratory tract, and glyoxal has mutagenic activity. In addition, glycerin and propylene glycol, after entering the alveoli, lead to the destruction of the surfactant, which prevents the adhesion of the alveoli.

Glycerin stimulates peristalsis, leading to diarrhea. Propylene glycol is also a stimulating factor for the formation of squamous cell metaplasia of the larynx, that is, an oncological disease. Currently, the disease "EVALI" has been isolated — pulmonary damage associated with electronic cigarettes and vaping products." Respiratory manifestations range from mild respiratory symptoms to respiratory failure ending in death. This disease was first diagnosed in the USA.

At the same time, the disease was widespread. The first case of this disease in Russia occurred in the summer of 2021 in the Morozov Children's Hospital, such a diagnosis was made to a 17-year-old teenager. Doctors found that the cause of the disease was inflammation in the bronchioles, which caused the use of vaping. And this is not the only case of this diagnosis in Russia.

**Conclusions.** Despite the perceived safety of ES compared to tobacco cigarettes, their harmful effects have been proven. They have not only a dangerous effect on the development of diseases with their direct use, such as inflammatory lung disease, the development of addiction, the explosive nature of the device, but also have a delayed negative effect – the appearance of cancer, decreased libido in men and infertility in women.