

Psychological Dependence on Electronic Cigarettes and their Impact on the Human Body and Others

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Article Information

Received: November 28, 2022

Accepted: December 29, 2022

Published: January 30, 2023

Keywords: *electronic cigarettes, diseases, nicotine.*

ABSTRACT

In electronic cigarettes, both nicotine and nicotine-free liquids are used, which are chemical mixtures of various compositions. E-cigarette liquids contain toxic substances (such as carbonyl compounds and heavy metals), as well as carcinogens (such as formaldehyde, acetaldehyde, etc.).

The variety and nicotine content (strength) of electronic cigarettes and their liquids varies from manufacturer to manufacturer. Electronic cigarettes come in different shapes and sizes. They may look like traditional cigarettes or everyday items such as flash drives or even pens. To increase interest in these products, various flavors are mixed into the liquid for electronic cigarettes. Sometimes there is a note on electronic cigarettes that they do not contain nicotine, but in fact it is there.

Flavorings (for example, menthol, cherry, citrus, coffee, cinnamon, chocolate) are often added to liquids for electronic cigarettes to hide the unpleasant taste of nicotine and to accustom the user to an unpleasant taste. Studies confirm that flavored liquids for electronic cigarettes are significantly more attractive to children and young people than liquids without flavorings. The older the user, the less important the taste of liquid for electronic cigarettes is for him. From the studies conducted so far on the effect of electronic cigarettes on health, it was found that the greatest effect is caused by inhalation of flavoring and aromatic substances. Flavor mixtures for electronic cigarettes can harm cells located in human vessels and the heart.

Like regular cigarettes, e-cigarettes contain substances that are dangerous to health, and their use can also cause various diseases. Liquids for electronic cigarettes containing nicotine are definitely unsafe for health, since nicotine is a dangerous neurotoxin that causes addiction.

Experiments with human cells have repeatedly shown that electronic cigarettes trigger the same processes at the cellular level as conventional cigarettes. We ourselves do not perceive them directly, but it is the processes at the cellular level that play an important role in the development of diseases. Today we have little information about diseases that develop over a long time, but there is evidence of painful conditions resulting from short-term use.

E-cigarette liquids are toxic to human cells, and the degree of toxicity depends on both the amount of nicotine and the flavors and additives used. For example, liquids for electronic cigarettes with the taste of cinnamon and tobacco turned out to be more dangerous than others.

Inhaling any vapor or smoke leaves a trace in the human body. When vaping, people inhale compounds that cause oxidative stress and cause cancer.

The use of electronic cigarettes increases the resistance of the respiratory tract, promotes inflammation of the respiratory tract and reduces the ability of the immune system to protect itself from viruses.

Animal experiments have shown that the use of electronic cigarettes during pregnancy has the same effect on the fetus as smoking cigarettes, affecting both the weight of the child and its further development.

If several people use one electronic cigarette (together or repeatedly), this means the risk of contracting an infectious disease such as hepatitis C, herpes, respiratory viruses, etc.

Electronic cigarettes, which use nicotine-containing liquids, emit the same or even more amount of nicotine as regular cigarettes, which lead to the development of addiction.

Electronic cigarettes are definitely unsafe for the human body. Probably, electronic cigarettes contain fewer different toxic substances than ordinary cigarette smoke, but the doses are still sufficient to cause harm to health. For example, a graduate student at the University of Tartu found that smoking electronic cigarettes causes a mechanism in the epithelial cells of the human bronchi similar to what happens when smoking regular cigarettes. Nicotine is a neurotoxin that can have a devastating effect on the body.

The composition of e-cigarette smoke varies greatly from product to product, for example, the proportion of various metals (tin, chromium, nickel) can vary several hundred times. In particular, the toxicity of electronic cigarettes is associated with the use of different flavoring and aromatic substances. From the point of view of health, the particle size of a substance, interaction with other substances and the launch of certain mechanisms are also important.

Smoking an electronic cigarette, like smoking a regular cigarette, is smoking. It does not matter whether it is ordinary cigarettes, hookah, snus or an electronic cigarette – they all have a common denominator – nicotine, and this is a tobacco product or a product used similarly to a tobacco product. When switching from conventional cigarettes to electronic cigarettes, the smoking regime does not change, only the method of nicotine absorption changes.

Safer nicotine replacement therapy options or prescription medications recommended or prescribed by a doctor are recommended to help in quitting smoking. Nicotine replacement therapy uses, for example, nicotine patches, the effectiveness and safety of which have been proven by scientific research. They are also easier to give up after a two-month withdrawal period.

When sellers of electronic cigarettes talk about quitting smoking, they mean switching from conventional cigarettes to electronic ones. The opinion that changing the method of use reduces the danger of using the substance is incorrect. Nicotine remains a highly addictive substance, which certainly affects human health in many ways. This means constant harm to one's health

and constant income for the relevant companies due to an addictive disorder.

From the point of view of the risk of smoking, the experience of a smoker is even more important than the number of cigarettes smoked per day. Even 1-5 cigarettes a day is enough to harm your health.

Electronic cigarettes are often used in combination with one or more other tobacco products. Using two or more products at the same time can be even more harmful – nicotine addiction persists and the risk of inhaling harmful substances increases. Vaping can increase the use of regular cigarettes.

Electronic cigarettes are harmful both to the smoker and to others who inhale the aerosol exhaled by the smoker of an electronic cigarette. Studies confirm that the aerosol exhaled when using electronic cigarettes, depending on the product, contains various toxic substances and nicotine. Fine particles of various metals such as iron, silver, tin, nickel, aluminum, copper, lead and chromium were found in the aerosol of electronic cigarettes. Therefore, passive smoking of electronic cigarettes is also dangerous.

Both smoking and shaping emit dangerous substances, and we have no right to endanger the health of other people by our actions. This danger is not limited to directly inhaled substances, but continues when substances enter the environment.

While the effects of conventional cigarettes have been tracked for decades, it has not yet been possible to study the long-term health effects of e-cigarettes. To conduct long-term research, it is necessary to have a number of people who have been using e-cigarettes for a long time, for decades. Electronic cigarettes have been on the market for 15-20 years, and during this time there has been a significant development of the product, which means that research conducted even 5 years ago is completely inadequate today.

Although there is little data on long-term effects, it is known that the use of electronic cigarettes is associated with the development of asthma, heart and lung diseases. Since these products are not standardized, and the chemical composition varies greatly, this makes it difficult to conduct research. Until we know about the long-term health effects of e-cigarettes, we recommend that you refrain from using e-cigarettes in the name of risk avoidance.

Tobacco heating systems also emit nicotine into the air. However, due to the lower temperature of the aerosol, its molecules have a lower average mileage, that is, the distribution of nicotine to the sides is less effective than that of conventional cigarettes. In terms of poisoning others with resins, acrolein and formaldehyde, heating systems are noticeably less dangerous: as we have already noted, they emit them less than cigarettes. Nevertheless, there is an impact, and it is a bad idea to use such systems in the presence of children and pregnant women.

There is no saving from an electronic cigarette, often a person starts smoking even more – because of the awareness of the imaginary harmlessness of this habit.

The electronic cigarette is not certified by WHO, and no large-scale studies of this device have been conducted.

The content of harmful substances in refueling cartridges is entirely on the conscience of the manufacturers. Neither the cartridges nor the cigarettes themselves are subject to mandatory certification – that is, unscrupulous sellers can safely produce fakes or devices dangerous to health.

Imitation of smoke in the form of steam can irritate others purely psychologically because of the visual similarity with cigarette smoke. According to research by American scientists, e-cigarettes are not a safe alternative to conventional ones, since the nicotine content in them exceeds the

declared one, and they are most often produced in Chinese factories in violation of safety standards.

Nicotine penetrates into the blood after the first puff. This is a dangerous narcotic substance that causes a lot of negative consequences for the body and psychological dependence. To a greater extent, it affects the cardiovascular system, provoking the development of sclerotic and other pathologies. The kidneys and the entire excretory system are also severely affected, not to mention the lungs.

Nicotine with prolonged exposure to the body can cause cancer. The harm of an electronic cigarette for health can be even greater than from a conventional one. This is due to the confidence of smokers in the imaginary safety of the device and, in this regard, more active smoking.

The body does not receive even a short respite in the intake of nicotine, which puts a huge strain on all internal systems.

Considering all the arguments, to the question "electronic cigarette: harm and benefit?" it is possible to give an unambiguous answer — any smoking is harmful to health and leads to lung cancer. Therefore, it is better to give up the bad habit altogether.

Based on animal tests, it turned out that the use of an electronic cigarette during pregnancy has an effect on the fetus similar to traditional smoking. Both the child's weight and the development of his lungs and brain are affected.

E-cigarette refueling liquids are toxic to the cells of the human body, and the degree of toxicity depends both on the concentration of nicotine and on what flavors and flavorings are included in their composition. More dangerous than others were, for example, fillers with the taste of cinnamon and tobacco.

The use of electronic cigarettes contributes to breathing difficulties, inflammation of the respiratory tract and a decrease in the ability of the immune system to resist viruses. Particles of various metals were found in the vapors of electronic cigarettes. For example, iron, silver, tin, nickel, aluminum, copper, lead and chromium. Studies have shown that the vapor exhaled when using an electronic cigarette contains not only water, but also, depending on the product, various toxins and nicotine. For this reason, preventive measures should be taken against the potential risks associated with e-cigarettes, both among vapers and among the people around them.

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