Dear Alice,

Can you tell me about electronic cigarettes and their effects on health? Pros and cons, and a comparison to actual cigarettes? How do they compare to the patch and gum for someone who wants to quit smoking?

? E-Cig

Answer

Dear E-Cig,

E-cigarettes, or e-cigs, are a member of a family of products known as electronic nicotine delivery systems (ENDS). While there's no scientific consensus on the long-term risk or relative safety of using e-cigs, studies to date have shown that the devices transmit fewer toxins than traditional cigarettes. E-cigs are not, however, without health risks (read on for more information). While some users attest to e-cigs' power in weaning them off of traditional cigarettes and helping them nix their nicotine addiction, there's currently no definitive evidence that e-cigarettes are effective quitting devices. The science is currently inconclusive on whether these devices are more or less effective in aiding cessation than nicotine replacement therapy (NRT) products such as gum and the patch. Though much research still needs to be done, current results support the use of a combination of methods — NRT products, counseling and social support, and individualized cessation plans — for the best chance of quitting.

E-cigarettes are actually small, battery-powered vaporizers, thus you may have heard the term ?vaping? to describe their use. Some versions of e-cigs are designed in size, shape, and color to resemble the real thing, while others are the same general shape and size but try to appear visually different from traditional cigarettes. The act of inhaling triggers a sensor that causes a tiny heating element to heat up the nicotine-containing cartridge inside, creating a vapor. E-cigs come in varying levels of nicotine and some come without it. In recent years, the Food and Drug Administration (FDA) began regulating the manufacturing of ENDS products and their counterparts, such as the e-cig and its e-liquid cartridges. While e-cigarettes were, at one point, only available for purchase online, they are now widely available at drug and retail stores, and you must be 18 years or older to purchase these products.

E-cigarettes have gained attention in the last decade for their potential to be a ?harm reduction? approach to nicotine addiction. Although switching to e-cigs may reduce the harm
caused by traditional cigarettes, e-cigs are not without damaging side-effects. These devices deliver nicotine directly to the lungs unlike the patch or nicotine gum, where the nicotine is absorbed via the skin or mouth. Recent studies have found that e-cig vapor with and without nicotine, causes an increase in cell death, particularly to the cells inside the mouth, esophagus, and other parts of the body, all of which are harmful to the user. Aside from the negative side-effects of electronic cigarette vapor, nicotine itself is addictive and toxic to humans. Extended exposure to nicotine may potentially lead to nicotine poisoning (an intake of too much nicotine), which may result in side-effects such as headache, vomiting, cramps, confusion, depression, and coma. In fact, as of 2018, all new ENDS products that contain nicotine must have a warning label alerting consumers that nicotine is an addictive chemical. Another factor to consider is that the liquid in electronic cigarettes typically contains varying compositions of propylene glycol (PG), vegetable glycerin (VG), and flavorings. PG is one of the more controversial substances in e-cigs because it's used in anti-freeze; however, the FDA recognizes it as safe in the amounts found in e-cigs.

Are e-cigs considered a smoking cessation aid? Not currently. Research on this topic is still in progress; the few studies that have been done have garnered mixed results due the variety of factors involved in quitting smoking. NRT is one major category of smoking cessation products that includes nicotine patches, gums, lozenges, and nasal sprays. These products are designed to wean the body off of cigarettes and supply it with nicotine in controlled amounts, while sparing the smoker from other chemicals found in tobacco products. A grouping of NRT products - combining nicotine patch (slow release) with nicotine gum, lozenge, inhaler, or nasal spray (rapid release) - has been shown to be more effective than using just one NRT product. Studies have found these methods to be even more effective when combined with counseling, behavioral treatments such as quitting support hotlines, and individualized quit plans. When comparing the effectiveness of e-cigarettes to NRT products as methods of cessation, studies have garnered mixed results; some found that e-cigs were more helpful in quitting smoking, while other studies did not. Ultimately, research is still being conducted, so it's difficult to say whether NRT products or e-cigarettes are more effective in smoking cessation.

Overall, avoiding both traditional and e-cigarettes is recommended, as each presents its own health risks. Gums, patches, and other NRTs are currently recognized as effective cessation aids, so they may be a safer option than an e-cig. No matter how it's done though, quitting smoking has immense health benefits, so it's great that you're considering it. If you're considering whether to kick (cigarette) butt in the near future, Smokefree.gov has a number of resources on quitting. You can also check out the Go Ask Alice! Cigarettes, Chewing Tobacco, & Other Nicotine archives for more information on cigarettes, nicotine, and health.

Here's to happy lungs,

Here's to happy lungs,

Alice!

Category: Alcohol & Other Drugs
Cigarettes, Chewing Tobacco, & Other Nicotine

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