

Electronic Cigarettes

The electronic cigarette was invented in the 1960's, but didn't really take off until a decade ago. Currently, there are more than 250 brands of e-cigarettes available in such flavors as watermelon, pink bubble-gum and Java, and in more colors than the iPhone 5C. The Tobacco Vapor Electronic Cigarette Association estimates that about 4 million Americans now use battery powered cigarettes.

What are e-cigarettes?

E-cigarettes are battery operated nicotine inhalers that consist of a rechargeable lithium battery, a cartridge call a cartomizer and an LED that lights up at the end when you puff on the e-cigarette to simulate the burn of a tobacco cigarette. The cartomizer is filled with an e-liquid that typically contains the chemical propylene glycol along with nicotine, flavoring and other additives.

The device works much like a miniature version of the smoke machines that operate behind rock bands. When you "vape" – that's the term for puffing on an e-cig – a heating element boils the e-liquid until it produces a vapor. A device creates the same amount of vapor no matter how hard you puff until the battery or e-liquid runs down.

Costs and Legal Aspects

Starter kits usually run between \$30-\$100. The estimate cost of replacement cartridges is about \$600, compared with the more than \$1,000 a year it costs to feed a pack-a-day tobacco cigarette habit. Discount coupons and promotional codes are available online.

Unlike tobacco products, there are no current laws in effect prohibiting the use of e-cigarettes in public places. Although there are no official age-regulations with e-cigarettes, many distributors will not sell to minors because of concerns that they lead to nicotine addiction or recreational use.

What are the health risks of vaping?

There are always risks when one inhales anything other than fresh, clean air, but the risks with e-cigarettes are likely far less than those of traditional cigarettes.

The main advantage to e-cigs is the relative lack of toxic contaminants. Although trace elements of hazardous compounds have been found in e-cigarettes (such as the main ingredient in antifreeze), they have far fewer contaminants than regular cigarettes (9 vs. 11,000 vs. 9; according to an FDA report).

E-cigarettes still contain nicotine, as do other replacement therapies such as patches and gum. Nicotine can increase blood pressure and raise carbon monoxide concentrations in the blood. E-cigarettes may be harmful if you have a heart condition and prolonged use can damage your arteries (this risk exists with regular cigarettes too).

E-cigarettes are not regulated, so it's hard to assume that all brands are equally safe.

Do e-cigarettes help tobacco smokers quit?

Because they preserve the hand-to-mouth ritual of smoking, e-cigarettes might help transform a smoker's harmful tobacco habits to a potentially less harmful e-smoking habit. As of yet, though, little evidence exists to support this theory.

One study, which compared e-cigarettes to nicotine patches, found similar quit-rates between the two methods. Higher quit rates (as much as double) have been found with varenicline (Chantix), a prescription medication that blocks nicotine receptors.

Bottom line

Smoking is so dangerous that anything which helps you quit is a good step. Although e-cigarettes are safer than smoking, they do carry risks of their own, so are best used as a step-down towards a nicotine-free life. Other options to help quit are available if e-cigarettes don't help you get fully off nicotine.

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