

E-Cigarettes: What Are They and What Do We Know about Safety?

The electronic cigarette (or e-cigarette) has recently become popular as a substitute for traditional tobacco products. While many users believe that e-cigarettes are a more acceptable alternative to tobacco cigarettes because they are smokeless, the National Institute on Drug Abuse (NIDA) points out that they still deliver nicotine to the system and that little science-based information is available on effects of e-cigarettes on health.

E-cigarettes usually look like cigarettes or other tobacco products, but do not contain tobacco and do not produce smoke. The e-cigarette is battery-powered and is used to provide nicotine to the user without many of the other harmful chemicals contained in tobacco. The e-cigarette contains a small amount of liquid and a vaporizer that heats it. The contents of the liquid include nicotine and may also include flavorings (for example, coffee or mint) that make the e-cigarette more desirable, and other chemicals. When an individual uses an e-cigarette, the liquid is heated and vaporized and the nicotine is conveyed to the lungs. According to NIDA, the process of inhaling the vapor produced by the e-cigarette is called “vaping.”

NIDA raises some concerns about the safety of routine use of e-cigarettes. While the e-cigarettes do not produce smoke, they still expose the user to nicotine, which NIDA emphasizes is, in itself, addictive. They may contain other chemicals as well that could be harmful to health. There also is concern that e-cigarettes may lead to later usage of tobacco-based products, especially among adolescents. E-cigarettes are not regulated by the U.S. Food and Drug Administration (FDA), so, unless individual states are regulating the sale to minors, there are no age restrictions on their purchase. The lack of regulation also means that the liquids contained in the cartridges are not regulated or tested for safety. In summary, while e-cigarettes have

become popular and use is not currently regulated, there is little research-based information available on their safety or effects on the health of the users.

Reference:

National Institute on Drug Abuse (NIDA). Drug Facts: Electronic Cigarettes (e-Cigarettes). (Revised November 2013). <http://www.drugabuse.gov/publications/drugfacts/electronic-cigarettes-e-cigarettes>. Accessed 12/10/2013.

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