

- ☞ Nicotine can cross the placenta and affect fetal and postnatal development. Nicotine exposure during pregnancy can result in multiple adverse consequences, including sudden infant death syndrome (SIDS).
- ☞ Ingestion of e-cigarette liquids containing nicotine can cause acute toxicity and possible death if the contents of refill cartridges or bottles containing nicotine are consumed.

E-cigarette aerosol is not harmless. It can contain harmful and potentially harmful constituents including nicotine. Nicotine exposure during adolescence can cause addiction and can harm the developing adolescent brain.

- ☞ The constituents of e-cigarette liquids can include solvents, flavorants, and toxicants.
- ☞ The aerosol created by e-cigarettes can contain ingredients that are harmful and potentially harmful to the public's health, including: nicotine; ultrafine particles; flavorings such as diacetyl, a chemical linked to serious lung disease; volatile organic compounds such as benzene, which is found in car exhaust; and heavy metals, such as nickel, tin, and lead.

E-cigarettes are marketed by promoting flavors and using a wide variety of media channels and approaches that have been used in the past for marketing conventional tobacco products to youth and young adults.

- ☞ E-cigarettes are an estimated \$3.5 billion business in the United States. In 2014, e-cigarette manufacturers spent \$125 million advertising their products in the U.S.
- ☞ In 2014, more than 7 of 10 middle and high school students said they had seen e-cigarette advertising. Retail stores were the most frequent source of this advertising, followed by the internet, TV and movies, and magazines and newspapers.
- ☞ The 2012 Surgeon General's Report on tobacco use among youth and young adults found that tobacco product advertising causes young people to start using tobacco products. Much of today's e-cigarette advertising uses approaches and themes similar to those that were used to promote conventional tobacco products.
- ☞ E-cigarettes are available in a wide variety of flavors, including many that are especially appealing to youth. More than 85% of e-cigarette users ages 12-17 use flavored e-cigarettes, and flavors are the leading reason for youth use. More than 9 of 10 young adult e-cigarette users said they use e-cigarettes flavored to taste like menthol, alcohol, fruit, chocolate, or other sweets.

Action can be taken at the national, state, local, tribal and territorial levels to address e-cigarette use among youth and young adults. Actions could include incorporating e-cigarettes into smokefree policies, preventing access to e-cigarettes by youth, price and tax policies, retail licensure, regulation of e-cigarette marketing likely to attract youth, and educational initiatives targeting youth and young adults.

- ☞ The Food and Drug Administration (FDA) now regulates the manufacturing, importing, packaging, labeling, advertising, promotion, sale, and distribution of e-cigarettes.
 - ☞ In August 2016, FDA began enforcing a ban on vending machine sales unless in adult-only facilities and a ban on free samples and sales to minors.
- ☞ Parents, teachers, health care providers, and others who influence youth and young adults can advise and inform them of the dangers of nicotine; discourage youth tobacco use in any form, including e-cigarettes; and set a positive example by being tobacco-free themselves.

Citation: U.S. Department of Health and Human Services. *E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General—Executive Summary*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

Website: E-cigarettes.Surgeongeneral.gov