

**CDC Office on Smoking and Health
E-cigarette Information
November 2015**

E-cigarettes have the potential for harm and benefit to the public’s health. It is important to consider their effects on specific populations, including youth, pregnant women, and adult smokers.

Table: Examples of how e-cigarettes could benefit or harm the public’s health

E-cigarettes could cause public health HARM if they:	E-cigarettes could lead to public health BENEFIT if:
<ul style="list-style-type: none"> • Lead to use of nicotine and/or other tobacco products by youth and nontobacco users. • Are used by pregnant women. • Lead former smokers to relapse to nicotine use or use of other tobacco products. • Delay complete smoking cessation among current smokers. • Result in nicotine poisonings (e.g., through ingestion of e-cigarette liquid, absorption of e-cigarette liquid through the skin, or inhalation of e-cigarette aerosol). • Expose nonusers to secondhand aerosol. 	<ul style="list-style-type: none"> • Individual adult smokers switch <i>completely</i> from combustible tobacco products to e-cigarettes. • They assist in rapid transition to a society with little or no combustible tobacco use.

For YOUTH:

- Use of tobacco and nicotine pose known harms for youth. Therefore, youth should not use *any* tobacco product, regardless of whether it’s combustible, noncombustible, or electronic.
 - Nicotine is highly addictive.
 - Nicotine exposure may harm the developing adolescent brain.
 - E-cigarette use by youth could also cause harm if it leads to use of other tobacco products.

For NON-PREGNANT ADULT SMOKERS:

- Any combusted tobacco use at any age is dangerous. According to the US Surgeon General, the burden of death and disease from tobacco use in the United States is overwhelmingly caused by cigarettes and other combusted tobacco products.
- For adult smokers to benefit from e-cigarettes, they must *completely* quit combusted tobacco use. Smoking even a few cigarettes per day is dangerous to health.
- E-cigarettes are not an FDA-approved smoking cessation aid.
 - The US Preventive Services Task Force, a group of health experts that makes recommendations about preventive health care, has concluded that evidence is insufficient to recommend e-cigarettes for smoking cessation in adults, including pregnant women.

For PREGNANT WOMEN:

- Nicotine is a health danger for pregnant women and their developing fetuses.
- Pregnant women should not use any tobacco product, including e-cigarettes, because nicotine is toxic to developing fetuses and impairs fetal brain and lung development.

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- Pregnant women who haven't been able to quit smoking on their own or with counseling can discuss the risks and benefits of using cessation products, such as nicotine replacement therapy, with their health care provider.

For ADULT NONTOBACCO USERS:

- E-cigarette aerosol is not harmless water vapor. In addition to nicotine, e-cigarette aerosol can contain heavy metals, ultrafine particulates that can be inhaled deep into the lungs, and cancer-causing agents like acrolein.
- E-cigarette aerosols also contain propylene glycol or glycerin and flavorings. Some e-cigarette manufacturers claim that the use of these ingredients is safe because they meet the FDA definition of "generally recognized as safe" (GRAS). However, GRAS status applies to ingestion of these ingredients (i.e., in food), *not* inhalation. The health effects of inhaling these substances, including from an e-cigarette, are unknown.
- Inhaling e-cigarette aerosol directly from the device or from secondhand aerosol that is exhaled by users is potentially harmful to health. Therefore, adult nontobacco users should not use e-cigarettes or be exposed to secondhand aerosol from these products.