



What is **Secondhand Aerosol** from E-Cigarettes?

E-cigarettes produce an aerosol by heating a liquid that usually contains nicotine and other harmful chemicals. When the aerosol is exhaled by the user, bystanders can involuntarily breathe in this aerosol.⁵

What are the harmful effects of secondhand e-cigarette aerosol?

Scientific evidence indicates that the aerosol emitted by e-cigarettes may expose nonusers, including children and infants, to aerosolized nicotine and other potentially harmful substances which are not as safe as clean air.¹

Who is exposed?

- In 2017, more than half (55.1%, 14.3 million) of U.S. middle and high school students reported exposure to secondhand tobacco product emissions in indoor or outdoor public places.²
- According to the 2015 and 2017 National Youth Tobacco Survey, the following individuals were more at risk to the exposure of e-cigarette emissions:
 - Female students versus male students
 - High school students versus middle school students
 - Current e-cigarette users versus nonusers
 - Students who reported that a household member used tobacco products²
- Aerosol emissions have increased with newer developed devices putting anyone exposed to greater health risks.⁷

How toxic are emissions from e-cigarettes?

In 2016, the Surgeon General concluded that secondhand emissions contain, "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."^{3,4} Other chemicals found in secondhand aerosol include:

- Propylene Glycol
- Glycerin
- Formaldehyde
- Acetaldehyde⁸

How can the public be protected from secondhand emissions?

- Include e-cigarettes in smokefree policies for indoor and outdoor public places.⁴
- Advocate for all states to pass comprehensive smokefree laws and policies.
- Urge the federal government to help protect those living in public and subsidized housing.⁶
- Provide education on the harmful effects from using e-cigarettes.⁷

References

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