



Health impacts of e-cigarette use⁴

- Like combustible tobacco products, e-cigarettes can lead to addiction to nicotine.
- E-cigarettes may be less harmful for adult smokers, but they are not completely safe.
- There are known health effects related to using e-cigarettes such as serious lung disease; more research (and time) is needed to learn the long-term impact of e-cigarette use.³
- The mid to long-term harm due to the inhalation of e-cigarettes are not yet known, however there is evidence of harm due to inhalation of harmful chemicals, accidental overdose and battery explosion.

Chemicals include:

- Ultrafine particles that can be inhaled deep into the lungs
- Flavorings made from chemicals such as diacetyl, a chemical linked to serious lung disease
- Volatile organic compounds
- Heavy metals, such as nickel, tin and lead

Health impacts on youth

- E-cigarettes are not safe for youth and young adults.
- The evidence shows that e-cigarette use among youth and young adults increases risk of use of conventional cigarettes.^{2,3}
- Adolescent exposure to nicotine can harm brain development:
 - Impacts the brain's reward system that leads to addiction to nicotine and can make other drugs such as cocaine and methamphetamine more pleasurable.^{2,3}
 - Increases risk of mood disorders and decreases impulse control.^{2,3}



E-cigarette use is on the rise in the U.S.

There are more than 10 million e-cigarette users in the U.S. age 18 and older — a prevalence of 4.5%.

10 million+
users 18+ years old

- The highest use is in the group age 18-24 and more than half are under the age of 35.¹
- The majority (89%) are current smokers or former smokers.²
- Approximately 10% of Quit For Life[®] participants are current e-cigarette users.⁴
- Quit For Life is Optum's tobacco cessation program with a steady 10+ year quit rate of 51 percent.



E-cigarettes are marketed to adults as a:

- Cleaner alternative to combustible tobacco
- Product to use when you are in places where smoking is not permitted
- Quit smoking aid

E-cigarette use in the youth and young adults has been declared an epidemic by the Surgeon General.²

↑78%

- E-cigarette use increased 78% among high school students between 2017 to 2018, from 11.7% to 20.8%.
- In 2018, more than 3.6 million U.S. youth, including 1 in 5 high school students use e-cigarettes.
- 1 in 20 middle school students currently use e-cigarettes.

The FDA has not approved e-cigarettes as a cessation aid

- While more U.S. adults are using e-cigarettes as a cessation aid, there is mixed evidence that e-cigarettes are an effective cessation aid.²
- A study conducted in the UK showed that e-cigarettes were more effective than nicotine replacement therapy (NRT); however 80% of the respondents were still using e-cigarettes one year later.⁶
- The American Cancer Society's (ACS) policy on e-cigarettes recommends switching to e-cigarettes for those smokers who will not attempt to quit or use FDA approved quit medication. The ACS strongly discourages dual use of conventional and e-cigarettes.⁷

How we can help people live healthier lives

Optum's goal is to help people live healthier lives by quitting tobacco and becoming nicotine-free. We launched our first e-cigarette protocol in 2016.

We are actively monitoring e-cigarette use among Quit For Life participants; and conducting research into whether e-cigarettes should be used as a quit aid.

Optum is increasing our focus on treating nicotine addiction with expanded protocols for e-cigarette users.

Sources:

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4. Estimate of e-cigarette users as of June 2019.
5. CDC, Quick facts on the risks of e-cigarettes for kids, teens and young adults. https://www.cdc.gov/tobacco/basic_information/e-cigarettes/. Accessed July 9, 2019.
6. NIH, Electronic cigarettes (e-cigarettes). <https://www.drugabuse.gov/publications/drugfacts/electronic-cigarettes-e-cigarettes>. Accessed July 9, 2019.
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Protocols

Quit For Life cessation strategies support adults and youth who:

- Are quitting conventional tobacco
- Are dual users
- Have recently switched from tobacco to vaping
- Are quitting e-cigarettes

Adults

- Quit For Life is prepared to support tobacco users and nicotine e-cigarette users, to meet participants where they are at and to help them achieve their goal of becoming tobacco and nicotine free.
- We encourage participants who are using e-cigarettes as a cessation aid to use FDA-approved NRT. However if the participant is only willing to switch to e-cigarettes, our coaches will help them build a plan that includes tapering off of e-cigarettes.

Youth

- While protocols vary, the goal for youth cessation is the same as for adult cessation.
- Program content is designed to engage youth in conversation about e-cigarettes (and/or combustible/conventional tobacco products).
- Topics are youth-centric, meant to give the youth "food for thought" so that they can come to their own conclusions.
- Coaching topics include: values, health concerns (relevant to youth), social influences, the role of big tobacco in promoting/nicotine tobacco products to youth and tobacco/nicotine as a social justice issue.
- The topics are in a logical order, but Quit Coaches[®] can tailor the order to be more relevant for the participant.