

What You Need to Know About Youth & Tobacco and Nicotine

WHAT IS TOBACCO?

The leaves of the tobacco plant are dried and processed into tobacco products, such as cigars, cigarettes and e-cigarettes.¹ In addition to nicotine, tobacco products include thousands of chemicals and can cause serious health problems, even death.²

WHAT IS NICOTINE?

Nicotine is a highly addictive chemical found in the tobacco leaf and tobacco products.² Nicotine changes the way the brain functions, inciting cravings for more nicotine, making it difficult for individuals to quit.¹ Almost all tobacco products contain nicotine.³

WHAT TOBACCO AND NICOTINE PRODUCTS ARE MARKETED TODAY?

A range of tobacco and nicotine products are marketed today, including cigarettes, cigars, little cigars, cigarillos, e-cigarettes or vapes, hookahs or waterpipes, smokeless tobacco products, dissolvable tobacco products (like lozenges, strips or sticks), heated tobacco products (sometimes called heat-not-burn tobacco products), nicotine pouches and powder tobacco that can be inhaled through the nose.¹

WHAT ARE E-CIGARETTES?

E-cigarettes (also called vapes, vape pens and e-cigs) are electronic devices that heat a liquid to produce an aerosol, or a mix of small particles in the air.⁴ E-cigarettes come in many shapes and sizes –

some look like regular cigarettes, cigars or pipes, and some look like USB flash drives, pens and other everyday items.⁵ Larger devices like tank systems or “mods” do not look like other tobacco products.³ Approximately 99% of e-cigarettes sold contain nicotine.⁶ E-cigarettes can also contain other chemicals that can be harmful to health.⁶

Electronic vaping devices can be used to consume a variety of substances in addition to nicotine (e.g., marijuana or cannabinoids like THC and CBD). Youth who use vaping devices may not refer to them as “e-cigarettes” since increasingly more products are designed to look different and more discreet, like a pen or USB flash drive.⁴

WHAT HEALTH EFFECTS CAN IMPACT YOUTH WHO USE TOBACCO PRODUCTS?

Youth who use tobacco and tobacco products that contain nicotine are at risk of nicotine addiction.⁵ Because young people are more sensitive to nicotine than adults, they can become addicted more quickly.⁵ Even social smoking once or twice a month can put youth at risk for nicotine addiction that can lead to longer-term use of tobacco products and can increase the chances of developing a serious tobacco-related disease.⁵ Cigarette smoking harms nearly every organ of the body and can cause cardiovascular and heart disease; respiratory disease; cancer; diabetes; and fertility, immune function, eye and oral health issues.¹ Smoking increases risk for morbidity and mortality.⁵

Brain development continues until about age 25 and nicotine can harm that development,⁸ especially the parts of the brain that control attention, learning, mood and impulse control.⁸ Using nicotine during adolescence may also increase risk for future addiction to other drugs.⁹

HOW MANY YOUTH USE TOBACCO PRODUCTS?

Nearly all tobacco use begins during youth and progresses during young adulthood. Each day, more than 3,200 children aged 18 or younger smoke their first cigarette.⁸ Nearly nine out of 10 individuals who smoke start before the age of 18 and almost all start smoking by age 26.¹ Every adult who dies early because of smoking is replaced by two new young smokers.⁷ If smoking continues at current rates, 5.6 million – one out of every 13 – of today’s children will ultimately die prematurely from a smoking-related illness.⁸



In 2020, nearly a quarter of high school students reported using a tobacco product in the past month.⁸ E-cigarettes have been the most commonly used tobacco product among youth since 2014; in 2020 about one of every 20 middle school students (4.7%) and about one of every five high school students (19.6%) reported they used an e-cigarette in the past 30 days.⁸ Though cigarette and cigar use has been declining among youth in recent years, in 2020, 4.6% of high school students reported using a cigarette in the past 30 days, and about the same proportion (5.0%) reported using a cigar in the past 30 days.⁸

In 2019, about 12 of every 100 middle school students (11.5%) and about 30 of every 100 high school students (29.9%) said they had tried two or more tobacco products.⁷ Youth who use multiple tobacco products are at higher risk for developing nicotine addiction and might be more likely to continue using tobacco into adulthood.¹⁰

WHAT ARE WAYS TO PREVENT AND REDUCE YOUTH TOBACCO USE?

National, state and local program activities have been shown to reduce and prevent youth tobacco product use, particularly when implemented together.¹¹ These include:

- Increasing tobacco prices (for example, through increased taxes).
- Prohibiting smoking in indoor areas of workplaces and public places.
- Raising the minimum age of sale for tobacco products to 21 years.
- TV and radio commercials, posters and other media messages aimed at kids and teens to counter tobacco product ads.
- Community programs and school and college policies that encourage tobacco-free places and lifestyles.
- Community programs that lower tobacco advertising and promotions and help make tobacco products less easily available.¹¹

HOW CAN I HELP A YOUNG PERSON QUIT USING TOBACCO PRODUCTS?

One of the most important things you can do for the health of young individuals is to **ask** about their tobacco/nicotine use at each visit. **Advise** those who do not use tobacco to stay tobacco-free and those who report using tobacco products to try to quit. **Assess** readiness to quit and **assist** youth who want to quit in setting a quit date, developing a quit plan and coping with withdrawal and relapse.

Or refer them to a tobacco treatment specialist or to an outside organization, such as a community mental health and substance use treatment organization, to connect them with resources. Some youth can get support in developing a quit plan and talking through triggers, urges and withdrawal by calling their state tobacco quitline at 1-800-QUIT-NOW. Texting, app and web-based interventions

can be found at teen.smokefree.gov. Additional cessation resources geared toward youth can be found at www.aap.org/youthcessation. Providers can also work with parents or guardians who use tobacco products to encourage them to quit, as household tobacco smoking has been shown to increase tobacco use initiation in youth.¹²

REFERENCES

1. National Institute of Drug Abuse. (2021, April). *Cigarettes and other tobacco products drugfacts*. <https://www.drugabuse.gov/publications/drugfacts/cigarettes-other-tobacco-products>.
2. United States Food and Drug Administration. (2020, August 28). *Nicotine: the addictive chemical in tobacco products*. <https://www.fda.gov/tobacco-products/health-information/nicotine-addictive-chemical-tobacco-products>.
3. United States Food and Drug Administration. (2021, August 19). *Nicotine is why tobacco products are addictive*. <https://www.fda.gov/tobacco-products/health-effects-tobacco-use/nicotine-why-tobacco-products-are-addictive>.
4. Centers for Disease Control and Prevention. (2021, April 23). *Quick facts on the risk of e-cigarettes for kids, teens, and young adults*. https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html.
5. Centers for Disease Control and Prevention. (n.d.). *Smoking and youth*. https://www.cdc.gov/tobacco/data_statistics/sgr/50th-anniversary/pdfs/fs_smoking_youth_508.pdf.
6. Centers for Disease Control and Prevention. (2021, July 7). *Quick facts on the risks of e-cigarettes for kids, teens, and young adults*. https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html.
7. Centers for Disease Control and Prevention. (2021, August 3). *Outbreak of lung injury associated with the use of e-cigarette, or vaping, products*. https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html.
8. Wang, T. W., Neff, L.J., Park-Lee, E., Ren, C., Cullen, K. A., King, B. A. (2020, September 18). E-cigarette use among middle and high school students – United States, 2020. *MMWR Morb Mortal Wkly Rep*, 69(37): 1310–1312. doi: 10.15585/mmwr.mm6937e1.
9. Centers for Disease Control and Prevention. (2018, December). *Surgeon General’s advisory on e-cigarette use among youth*. https://www.cdc.gov/tobacco/basic_information/e-cigarettes/surgeon-general-advisory/index.html.
10. Centers for Disease Control and Prevention. (2020, December 16). *Youth and tobacco use*. https://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm.
11. Centers for Disease Control and Prevention. (2014). *Best practices for comprehensive tobacco control programs*. https://www.cdc.gov/tobacco/stateandcommunity/best_practices/pdfs/2014/comprehensive.pdf.
12. National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. (2012). *Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General*. Atlanta (GA): Centers for Disease Control and Prevention (US). <https://www.ncbi.nlm.nih.gov/books/NBK99237/>.

This project is supported by the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$2,000,000 with 100% funded by CDC/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CDC/HHS or the U.S. Government.