

Tobacco and Cancer Fact Sheet

for Health Care Professionals

Tobacco and Cancer in the US

- Tobacco use is the leading preventable cause of cancer occurrence and death in the US. About 30% of all cancer deaths are caused by smoking.¹
- Despite decades of declining smoking prevalence, smoking rates remain high among certain segments of the population, including those who live in the South; lower education or socioeconomic groups; certain racial or ethnic groups; the lesbian, gay, bisexual, and transgender (LGBT) community; those in the military; and people with mental illness.^{1,2}
- Secondhand smoke will likely cause about 3,600 cases of lung cancer in 2023.¹

Cancer Risk

Cigarettes

Besides being the leading cause of lung cancer deaths in adults, cigarette smoking increases the risk of at least 12 cancers: oral cavity and pharynx, larynx, lung, esophagus, pancreas, cervix, kidney, bladder, stomach, colon and rectum, and liver, as well as acute myeloid leukemia. In addition, there is evidence that smoking may increase the risk of fatal prostate cancer and a rare type of ovarian cancer.¹

Cigars

Cigars are often taxed at a lower rate than cigarettes, leading some people who smoke to switch from cigarettes to cigars.³ Regular cigar smoking is associated with an increased risk of cancers of the lung, oral cavity, larynx, and esophagus.⁴

Secondhand smoke

Exposure to secondhand smoke (SHS) increases the risk of lung cancer. There is also research suggesting a possible link between SHS and cancers of the breast, nasal sinuses, larynx, and nasopharynx in adults. SHS may also increase the risk of certain childhood cancers, such as lymphoma, leukemia, and brain tumors.⁵



Smokeless tobacco

Oral or smokeless tobacco products can cause oral, esophageal, and pancreatic cancer, as well as precancerous lesions of the mouth. The use of smokeless tobacco products as a method of quitting smoking has not been shown to be effective.^{1,6}

E-cigarettes

While e-cigarettes (vaping devices) have not been directly linked to cancer, long-term health effects are not yet known. It is important to note that e-cigarettes contain nicotine, which can be highly addictive, and the aerosol from e-liquids used in these products can contain other harmful chemicals. In 2021, e-cigarettes were the most commonly used tobacco product among high school and middle school students. Using e-cigarettes may lead some people to begin using combustible tobacco products that have known cancer risks.^{1,7-10}

Who Still Smokes in the US

Recent studies show smoking prevalence:

- Is lowest among Asian adults and highest among American Indian/Alaska Native adults²
- Is lowest among adults with a graduate degree and highest among people with lower levels of education¹
- Is higher among LGBT people than among straight people²
- Varies greatly depending on geographic location¹

Risk Reduction

Avoiding or quitting tobacco can help to greatly lower a person's risk of certain cancers, along with several other chronic diseases. People who quit at any age are more likely to live longer than people who keep smoking.

Avoiding tobacco use

Prevention efforts aimed at children and young adults can lead to a decrease in many tobacco-related health problems.

Most people who smoke start using tobacco during their youth or in young adulthood. People who start smoking at younger ages are more likely to develop long-term nicotine addiction than people who start later in life. According to the US Surgeon General, nearly 9 out of 10 adults who smoke started before age 18, and 99% started by age 26. And, 3 out of 4 high school students who smoke will continue to smoke as adults.¹¹

Avoiding secondhand exposure

Comprehensive smoke-free laws that prohibit smoking in public places and create smoke-free environments are effective in reducing SHS exposure, modifying smoking behavior, and reducing the risk of smoking-related disease. Data also show that the home is the main location for exposure to secondhand smoke for children and adults. Adults should prohibit the use of tobacco products in their homes. 12, 13

Tobacco cessation

Evidence-based cessation methods include nicotine replacement therapy (NRT), prescription medications (e.g., varenicline and buproprion), and counseling. All have been shown to improve the chances of success and long-term cessation. Combinations are likely to be more effective than the use of one treatment alone.¹⁴

All US states have telephone-based quitlines. Additionally, the Affordable Care Act (ACA) requires coverage for cessation treatments for people in most private, and some public, health insurance plans. And, some state Medicaid programs have expanded coverage to include no-cost tobacco cessation services.¹⁵

References

- American Cancer Society. Cancer Facts & Figures 2023. Atlanta. American CancerSociety; 2023. Accessed at https://www.cancer.org/content/dam/cancer-org/ research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2023/2023-cancer-facts-and-figures.pdf on January 17, 2023.
- Drope J, Liber AC, Cahn Z, Stoklosa M, Kennedy R, Douglas CE, Henson R, Drope J. Who's still smoking? Disparities in adult cigarette smoking prevalence in the United States. CA Cancer J Clin. 2018; 68: 106-115.
- Campaign for Tobacco-Free Kids. The rise of cigars and cigar-smoking harms. Tobaccofreekids.org; 2021. Accessed at https://www.tobaccofreekids.org/assets/factsheets/0333.pdf on January 21, 2022.
- Centers for Disease Control and Prevention. Cigars. Cdc.gov. 2021. Accessed at https://www.cdc.gov/tobacco/data_statistics/fact_sheets/tobacco_industry/cigars/ on January 17, 2023.
- National Cancer Institute. Secondhand Smoke and Cancer. 2018. Accessed at https:// www.cancer.gov/about-cancer/causes-prevention/risk/tobacco/second-hand-smoke-fact-sheet on January 17, 2023.
- Popova L, Ling PM. Alternative tobacco product use and smoking cessation: A national study. Am J Public Health. 2013;103(5):923-930.
- Drope J, Cahn Z, Kennedy R, Liber AC, Stoklosa M, Henson R, Douglas CE, Drope J. Key Issues Surrounding the Health Impacts of Electronic Nicotine Delivery Systems (ENDS) and Other Sources of Nicotine. CA Cancer J Clin. 2017;87(6):449-471. Accessed at https:// acsjournals.onlinelibrary.wiley.com/doi/full/10.3322/caac.21413 on January 17, 2023.
- National Academies of Sciences, Engineering, and Medicine (NASEM). Public Health Consequences of E-Cigarettes. Eaton DL, Kwan LY, Stratton K, eds. 2018. Washington, DC: National Academies Press. Accessed at https://www.nap.edu/catalog/24952/public-health-consequences-of-e-cigarettes on January 17, 2023.

- U.S. Department of Health and Human Services, Office of the Surgeon General. E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General. 2016. Accessed at https://e-cigarettes.surgeongeneral.gov/documents/2016_SGR_Full_Report_non-508.pdf on January 17. 2023.
- Wang TW, Neff LJ, Park-Lee E, Ren C, Cullen KA, King BA. E-cigarette Use Among Middle and High School Students – United States, 2020. MMWR Morb Mortal Wkly Rep. ePub: 9 September 2020. Accessed at https://www.cdc.gov/mmwr/volumes/69/wr/ mm6937e1.htm on January 17, 2023.
- US Department of Health & Human Services. The Health Consequences of Smoking 50 Years of Progress: A Report of the Surgeon General. 2014. Accessed at https://www.ncbi.nlm.nih.gov/books/NBK179276/pdf/Bookshelf_NBK179276.pdf on January 17, 2023.
- 12. Institute of Medicine. Secondhand Smoke Exposure and Cardiovascular Effects: Making Sense of the Evidence. Washington, DC: Institute of Medicine; 2009.
- 13. US Environmental Protection Agency. Secondhand Tobacco Smoke and Smoke-free Homes. 2020. Accessed at www2.epa.gov/indoor-air-quality-iaq/secondhand-tobacco-smoke-and-smoke-free-homes on January 17, 2023.
- National Comprehensive Cancer Network (NCCN). Practice Guidelines in Oncology: Smoking Cessation. Version 3.2022. Accessed at https://www.nccn.org/professionals/physician_gls/pdf/smoking.pdf January 17, 2023.
- DiGiulio A, Jump Z, Babb S, Schecter A, Williams KS, Yembra D, Armour BS. State Medicaid Coverage for Tobacco Cessation Treatments and Barriers to Accessing Treatments – United States, 2008-2018. MMWR Morb Mortal Wkly Rep. 2020 Feb 14;69(6):155-160.



