HEALTH HARMS FROM SMOKELESS TOBACCO USE

Public health authorities including the Surgeon General and the National Cancer Institute have found that smokeless tobacco use is hazardous to health and can lead to nicotine addiction. Smokeless tobacco contains at least 28 cancer-causing chemicals and causes oral, pancreatic and esophageal cancer. Use of smokeless tobacco is also associated with other health problems including lesions in the mouth and tooth decay.

- Nearly 30 years ago, an expert advisory committee to the U.S. Surgeon General found that, "After a careful examination of the relevant epidemiologic, experimental, and clinical data, the committee concludes that the oral use of smokeless tobacco represents a significant health risk. It is not a safe substitute for smoking cigarettes. It can cause cancer and a number of non-cancerous oral conditions and can lead to nicotine addiction and dependence."[1]
- According to the National Cancer Institute (NCI), at least 28 cancer causing chemicals have been identified in smokeless tobacco.[2] The U.S. National Toxicology Program established smokeless tobacco as a "known human carcinogen."[3]
- NCI and the International Agency for Research on Cancer report that use of smokeless tobacco causes oral, pancreatic and esophageal cancer.[4]
- Smokeless tobacco users have an increased risk of heart attacks and strokes compared to never users, and former smokers who have switched to smokeless tobacco have a higher risk compared to those who have quit entirely.[5] Smokeless tobacco use increases the risk of death when users have heart attacks or strokes.[6]
- Smokeless tobacco use is associated with leukoplakia, a disease of the mouth characterized by white patches and oral lesions on the cheeks, gums, and/or tongue. Leukoplakia can sometimes lead to oral cancer. Studies have found that more than half of daily users of smokeless tobacco had lesions or sores in the mouth, and that these sores are commonly found in the part of the mouth where users place their chew or dip.[7]
- Chewing tobacco has been linked to dental caries (tooth decay). A study by the National Institutes of Health and the Centers for Disease Control and Prevention found that chewing tobacco users were four times more likely than non-users to have decayed dental root surfaces.[8]
- Smokeless tobacco contains nitrosamines—proven and potent carcinogens.[9] A study by the American Health Foundation for the Commonwealth of Massachusetts found that the level of carcinogenic TSNAs in U.S. oral moist snuff brands were significantly higher than comparable Swedish Match brands. These data suggest that it is possible for smokeless tobacco companies to produce oral snuff with significantly lower TSNA levels.[10]
- A study of a large nationally representative population found higher concentrations of observed levels of nicotine and a carcinogenic tobacco-specific nitrosamine (TSNA) in smokeless tobacco users compared to cigarette smokers. Dual users of smokeless tobacco and cigarettes also had higher TSNA levels than cigarette smokers. TSNA levels varied over time and were based on a small sample, so the study notes that the levels should continue to be monitored and evaluated over time. This same study found higher blood lead concentrations in smokeless tobacco users compared to non-tobacco users, but in comparable levels to cigarette smokers.[11]
- A 2009 study found that moist snuff tobacco contained a considerable number of carcinogenic polycyclic aromatic hydrocarbons (PAHs) in varying amounts, depending on the product and

brand. Because of this variation, the researchers concluded that tobacco companies could minimize the levels of PAHs in their products.[12]

- Smokeless tobacco use during youth can lead to a lifetime of nicotine addiction.[13] A study in the *American Journal of Preventive Medicine* found that "snuff use may be a gateway form of nicotine dosing among males in the United States that may lead to subsequent cigarette smoking."[14] Another study found that adolescent boys who use smokeless tobacco products have a higher risk of becoming cigarette smokers within four years.[15]

Although smokeless tobacco use does not carry all of the same health harms as smoking, the health effects of using smokeless tobacco are well established. Considering that smokeless tobacco products still contain varying levels and types of carcinogens[16] and carry health risks, the only way to reduce an individual tobacco users' health risks to the maximum extent possible is to quit using tobacco entirely with evidence-based treatments that have been scientifically documented to help people quit using tobacco (e.g., nicotine gum and patch, telephone-based behavioral counseling/quitlines).[17]

Campaign for Tobacco-Free Kids, December 30, 2024 / Ann Boonn

More information on smokeless tobacco can be found at
http://www.tobaccofreekids.org/facts_issues/fact_sheets/toll/products/smokeless/.

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