

HEALTH EFFECTS OF FLAVORED TOBACCO AND NICOTINE PRODUCTS

"Flavored cigarettes appeal to kids and disguise the bad taste of tobacco, but they are just as addictive as regular tobacco products and have the same harmful health effects," -- Mitch Zeller, Director of the Food and Drug Administration's (FDA) Center for Tobacco Products ¹

The Tobacco Control Act, which was signed into law in 2009, banned cigarettes that contained candy or fruit flavors, to reduce the likelihood of youth smoking and addiction to tobacco. However, menthol was excluded from this ban. Tobacco manufacturers have also found a way to skirt this law by selling flavored cigarettes labeled as cigars.

To understand some of the potential health impacts of ending the sale of flavored tobacco, below are just some of the health effects of tobacco and nicotine:

Menthol Cigarettes

The Tobacco Products Scientific Advisory Committee 2011 report concluded that menthol cigarettes are no more or less toxic than are regular cigarettes, but the flavor's cooling and anesthetic properties reduce the harshness of cigarette smoke, thereby increasing their appeal to new smokers. ² However, menthol cigarettes are more difficult to quit than unflavored tobacco because menthol decreases the metabolism of nicotine and increases the amount of the addictive substance in the blood. ³

Health Effects of Tobacco Use

Smoking leads to disease and disability and harms nearly every organ of the body. More than 16 million Americans are living with a disease caused by smoking. For every person who dies because of smoking, at least 30 people live with a serious smoking-related illness. Smoking causes cancer, heart disease, stroke, lung diseases, chronic obstructive pulmonary disease (COPD), and many other diseases. ⁴

➤ Cancer

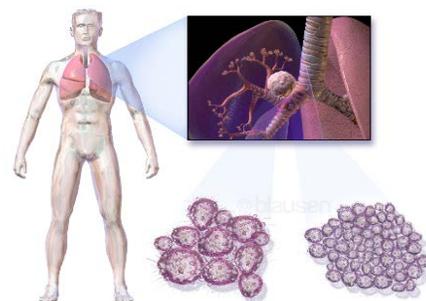
Each puff of a cigarette contains a mixture of thousands of compounds, including more than 60 well-established carcinogens (cancer causing substances). ⁵

Smoking can cause cancer almost anywhere in your body, including the: ⁶

- Blood (acute myeloid leukemia)
- Bladder
- Cervix
- Colon and rectum
- Esophagus
- Kidney and renal pelvis
- Larynx
- Liver
- Lungs
- Mouth and throat
- Pancreas
- Stomach
- Trachea, lung, and bronchus
- Prostate cancer - men who smoke may be more likely to die from it than nonsmokers

Smokeless tobacco, such as chewing tobacco, also causes cancer, including cancers of the:

- Esophagus
- Mouth and throat
- Pancreas



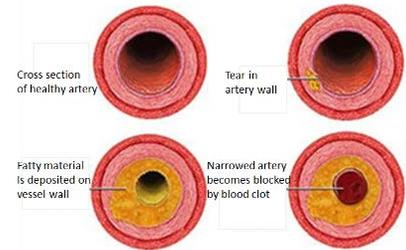
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➤ Cardiovascular Disease (CVD) and Stroke

Cigarette smoking has been responsible for approximately 140,000 premature deaths annually from CVD. More than 1 in 10 deaths worldwide from CVD in 2000 were attributed to smoking.

Smoking is a major cause of CVD and causes one of every three deaths from CVD. Smoking can:⁷

- Raise triglycerides (a type of fat in your blood)
- Lower "good" cholesterol (HDL)
- Make blood sticky and more likely to clot, which can block blood flow to the heart and brain
- Damage cells that line the blood vessels
- Increase the buildup of plaque (fat, cholesterol, calcium, and other substances) in blood vessels
- Cause thickening and narrowing of blood vessels



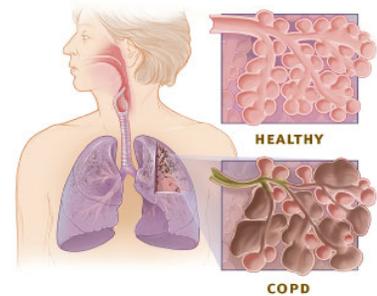
➤ Chronic Obstructive Pulmonary Disease (COPD)⁸

Chronic obstructive pulmonary disease (COPD) refers to a group of diseases that cause airflow blockage and breathing-related problems. COPD includes emphysema; chronic bronchitis; and in some cases, asthma.

COPD is usually caused by smoking. Smoking accounts for as many as 8 out of 10 COPD-related deaths.

With COPD, less air flows through the airways because of one or more of the following:

- The airways and tiny air sacs in the lungs lose their ability to stretch and shrink back
- The walls between many of the air sacs are destroyed
- The walls of the airways become thick and inflamed (irritated and swollen)
- The airways make more mucus than usual, which can clog them and block air flow



In the early stages of COPD, there may be no symptoms, or only have mild symptoms, such as:

- A nagging cough (often called "smoker's cough")
- Shortness of breath, especially with physical activity
- Wheezing (a whistling sound when you breathe)
- Tightness in the chest

As the disease gets worse, symptoms may include:

- Having trouble catching your breath or talking
- Blue or gray lips and/or fingernails (sign of low blood oxygen levels)
- Trouble with mental alertness
- A very fast heartbeat
- Swelling in the feet and ankles
- Weight loss

How severe your COPD symptoms are depends on how damaged your lungs are. If you keep smoking, the damage will get worse faster than if you stop smoking.

In addition to causing lung cancer and COPD, smoking increases the risk of death from pneumonia.⁹

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➤ Reproductive and Developmental Health¹⁰

Possible effects on conception:	Possible effects on pregnancy:	Possible effects on child development:
<ul style="list-style-type: none"> • Menstrual cycle function • Semen quality • Fertility • Menopause 	<ul style="list-style-type: none"> • Miscarriage • Ectopic pregnancy • Preterm delivery 	<ul style="list-style-type: none"> • Birth weight • Congenital anomalies • Perinatal and infant deaths; Sudden Infant Death Syndrome (SIDS)

➤ Secondhand Smoke¹¹

Secondhand smoke exposure contributes to approximately 41,000 deaths among nonsmoking adults and 400 deaths in infants each year.

In adults, secondhand smoke causes:

- Stroke
- Lung cancer
- Coronary heart disease

In children, secondhand smoke causes:

- Increased risk for SIDS
- Acute respiratory infections
- Middle ear disease
- More severe asthma
- Respiratory symptoms
- Slowed lung growth

See health effects of e-cigs and hookah in our companion factsheet.

¹ Tobacco Products Scientific Advisory Committee. (2011, March 23) Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations. Retrieved April 17, 2017, from

<https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf>

² Benowitz, N.L., B. Herrera, and P. Jacob. Mentholated cigarette smoking inhibits nicotine metabolism. *Journal of Pharmacology and Experimental Therapeutics*, 2004. 310(3): p. 1208-1215.)

³ United States Food and Drug Administration. (2016, December 9). Press Announcements - FDA takes action against four tobacco manufacturers for illegal sales of flavored cigarettes labeled as little cigars or cigars. Retrieved April 17, 2017, from

<https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm532563.htm>

⁴ Centers for Disease Control and Prevention. (2017, February 09). Health Effects. Retrieved April 17, 2017 from

https://www.cdc.gov/tobacco/basic_information/health_effects/cancer/index.htm

⁵ U.S. Department of Health and Human Services. *How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2010.

⁶ Centers for Disease Control and Prevention. (2016, November 14). Cancer. Retrieved April 17, 2017, from

https://www.cdc.gov/tobacco/basic_information/health_effects/cancer/index.htm

⁷ Centers for Disease Control and Prevention. (2016, March 16). Heart Disease and Stroke. Retrieved April 17, 2017, from

https://www.cdc.gov/tobacco/basic_information/health_effects/heart_disease/index.htm

⁸ Centers for Disease Control and Prevention. (2016, March 16). Chronic Obstructive Pulmonary Disease (COPD). Retrieved April 17, 2017, from

https://www.cdc.gov/tobacco/basic_information/health_effects/respiratory/index.htm

⁹ Centers for Disease Control and Prevention. (2017, February 09). Health Effects. Retrieved April 17, 2017, from

https://www.cdc.gov/tobacco/basic_information/health_effects/cancer/index.htm

¹⁰ Centers for Disease Control and Prevention. (2017, February 09). Health Effects. Retrieved April 17, 2017, from

https://www.cdc.gov/tobacco/basic_information/health_effects/cancer/index.htm

¹¹ Centers for Disease Control and Prevention. (2017, February 22). Secondhand Smoke. Retrieved April 18, 2017, from

https://www.cdc.gov/tobacco/basic_information/secondhand_smoke/