

# Secondhand Smoke and Tobacco

## FACT SHEET



## Secondhand Smoke and Heart Disease

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Secondhand smoke (SHS) is a mixture of the secondhand smoke exhaled by smokers (mainstream smoke) as well as the fumes given off by cigarettes, cigars, and pipes (sidestream smoke). Some of the substances contained in secondhand smoke include arsenic (used in pesticides), lead (formerly used in paint), chromium (used to make steel), and cadmium (used to make batteries). Secondhand smoke contains over 4000 chemical compounds including formaldehyde, cyanide, arsenic, carbon monoxide, methane, and benzene. Among the chemicals identified in cigarette smoke, 11 are known human carcinogens.

## National Facts and Trends

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- Secondhand smoke is estimated to cause from 22,700 to 69,600 premature deaths from heart disease each year in the United States among nonsmokers.<sup>1</sup>
- Nonsmokers who are exposed to secondhand smoke at home or at work increase their risk of developing heart disease by 25%–30%.<sup>1</sup>
- Breathing secondhand smoke can have immediate adverse effects on your blood and blood vessels, potentially increasing the risk of a heart attack.<sup>1</sup>
- Secondhand smoke exposure has immediate adverse effects on the cardiovascular system and causes coronary heart disease.<sup>1</sup>
- Breathing secondhand smoke interferes with the normal functioning of the heart, blood, and vascular systems in ways that increase the risk of a heart attack.<sup>1</sup>
- For some of these negative effects, the immediate impact of even short exposures to secondhand smoke appears to be almost as large as that observed in active smokers.<sup>1</sup>
- Even a short time in a smoky room can cause blood platelets to become stickier.<sup>1</sup>
- Even brief secondhand smoke exposure can damage the lining of blood vessels.<sup>1</sup>
- Short exposures to secondhand smoke can decrease coronary flow velocity reserves to levels observed in smokers and reduce heart rate variability.<sup>1</sup>
- Adults who breathe five hours of secondhand smoke daily have higher levels of the “bad” cholesterol that can clog the arteries of the heart.<sup>1</sup>
- Persons who already have heart disease are at especially high risk of suffering adverse effects from breathing secondhand smoke and should take special precautions to avoid even brief exposures.<sup>1</sup>
- Secondhand smoke exposure can also make a heart attack more severe than it would have been in the absence of exposure.<sup>1</sup>

## Maine Facts and Trends

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- Deaths from SHS in Maine can only be estimated as Maine’s portion of the U.S. population.

# The Story Behind the Facts: Why Is this Information Important

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- Cardiovascular disease is the leading cause of death in the United States. Cardiovascular disease includes coronary heart disease (CHD), which causes the most deaths, and stroke, which ranks as the third leading cause of death.<sup>2</sup>
- Scientific evidence indicates that there is not a risk-free level of exposure to secondhand smoke.<sup>1</sup>
- Secondhand smoke has been classified by the Environmental Protection Agency (EPA) as a known cause of cancer in humans (Group A carcinogen).<sup>3</sup>
- More than 126 million nonsmoking Americans continue to be exposed to secondhand smoke in homes, vehicles, workplaces, and public places.<sup>1</sup>
- Concentrations of many cancer-causing and toxic chemicals are potentially higher in secondhand smoke than in the smoke inhaled by smokers.<sup>1</sup>
- Most exposure to tobacco smoke occurs in homes and workplaces.<sup>1</sup>

## References

<sup>1</sup> Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General, 2006, Atlanta, Georgia. <http://www.surgeongeneral.gov/library/secondhandsmoke/report/fullreport.pdf>.

<sup>2</sup> US Center for Disease Control and Prevention (CDC), National Center for Health Statistics, Hoyert DL, Heron M, Murphy SL, & Kung H-C. "Deaths: Final Data for 2003". <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/finaldeaths03/finaldeaths03.htm>

<sup>3</sup> US Environmental Protection Agency (EPA), Health Effects of Exposure to Secondhand Smoke, <http://www.epa.gov/smokefree/healtheffects.html>.



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