

Secondhand Smoke in the Workplace

What is secondhand smoke?

Secondhand smoke is the smoke the smoker exhales plus the smoke from the burning tip of a tobacco product such as a cigarette. Secondhand smoke is a complex mixture of over 4,000 chemicals.¹ At least 250 of these chemicals are toxic.² Eleven of these chemicals are known to cause cancer in humans.³ A small sample of the chemicals in secondhand smoke includes: ammonia, arsenic, benzene, lead, formaldehyde, hydrogen cyanide, and carbon monoxide.¹

Is it safe to breathe secondhand smoke?

Science has proven there is no risk-free level of exposure to secondhand smoke.⁴

What is the health risk?

Studies have shown that just 30 minutes of exposure to secondhand smoke can cause significant changes in the function of the heart and blood vessels of nonsmokers.⁶ Secondhand smoke affects your heart and blood vessels in many different ways. Nonsmokers who are exposed to secondhand smoke at home or at work increase the risk of heart disease by about 25 - 30%. Exposure to secondhand smoke increases the risk of lung cancer by 20 - 30%.⁴



What is the health cost?

About 3,000 nonsmokers die every year in America from lung cancer caused by exposure to secondhand smoke. About 46,000 nonsmokers die every year from heart disease caused by exposure to secondhand smoke.⁵

Do "no smoking sections" give protection from secondhand smoke?

A study of 17 sites with separate smoking and no smoking areas showed that there was about 50% as much smoke in the no smoking section, as there was in the smoking section.⁷

Do ventilation systems give protection from secondhand smoke?

The American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE), the organization that sets the engineering standards for ventilation systems that are used world wide, has studied the issue of indoor smoking. Their study concluded, "At present, the only means of effectively eliminating health risk associated with indoor exposure is to ban smoking activity."⁸

What is the best way to protect people at work?

According to the U. S. Surgeon General, our nation's top public health official, smoke-free environments are the only approach that effectively protects nonsmokers from the dangers of secondhand smoke.⁴

Footnotes

¹ National Cancer Institute. Health Effects of Exposure to Environmental Tobacco Smoke: The Report of the California Environmental Protection Agency. Smoking and Tobacco Control Monograph No. 10 Bethesda, MD. U.S. Department of Health and Human Services, National Institutes of Health. 1999.

² National Toxicology Program. Report on Carcinogens, Eleventh Edition. U.S. Department of Health and Human Services, Public Health Service. 2000.

³ National Cancer Institute. Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine. Smoking and Tobacco Control Monograph No. 13 Bethesda, MD. U.S. Department of Health and Human Services, National Institutes of Health. 2001.

⁴ U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Atlanta, Georgia: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006

⁵ California Environmental Protection Agency. Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant. Sacramento: California Environmental Protection Agency, Office of Environmental Health Hazard Assessment. 2005.

⁶ Otsuka, R et al, "Acute Effects of Passive Smoking on the Coronary Circulation in Healthy Young Adults." Journal of the American Medical Association. 2001; 286:436-441.

⁷ Cains, T et al. "Designated 'No Smoking' Areas Provide from Partial to No Protection from Environmental Tobacco Smoke." Tobacco Control . 2004;13:17-22.

⁸ Samet, J et al. "ASHRAE position document on environmental tobacco smoke." American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE). 2005. ([Available online](#))