



FACTS ABOUT SECONDHAND SMOKE

Secondhand smoke causes between 35,000 and 40,000 deaths from heart disease every year.¹ 3000 otherwise healthy nonsmokers will die of lung cancer annually because of their exposure to secondhand smoke.² These deaths occur because tobacco users are not the only ones who breathe smoke—all the people around them inhale it too. Unfortunately, non-smoking and ventilated public spaces cannot filter or circulate air at the rate necessary to eliminate secondhand smoke.³

What is Secondhand Smoke?

- Secondhand smoke is the combination of smoke emitted from the burning ends of a tobacco product (sidestream smoke) and the smoke exhaled from the lungs of tobacco users (mainstream smoke).⁴
- Secondhand smoke contains over 4000 substances, more than 60 of which are known or suspected to cause cancer.⁵ Some of the deadly substances in secondhand smoke and the cancers they cause are:
 - Arsenic, benzo(a)pyrene, cadmium, chromium, nickel, and NNK → lung cancer
 - Nitrosamines → cancers of the lung, respiratory system, and other organs
 - Aromatic amines → bladder and breast cancers
 - Formaldehyde and nickel → nasal cancer
 - Benzene → leukemia
 - Vinyl chloride → liver and brain cancer
 - 2-naphthylamine and 4-aminobiphenyl → bladder cancer
 - Lead → liver cancer
- Three of the above carcinogens -- arsenic, benzene, and vinyl chloride -- are regulated in the United States as hazardous air pollutants. Two of the bladder carcinogens -- 2-naphthylamine and 4-aminobiphenyl are banned for use in dye manufacturing.⁶
- The Environmental Protection Agency (EPA) has classified secondhand smoke as a Group A carcinogen, a substance which is known to cause human cancer.⁷

¹ Steenland, K. (1992). Passive Smoking and the Risk of Heart Disease. *Journal of the American Medical Association* 267(1): 94-99.

² U.S. Environmental Protection Agency (EPA) (1992). *Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders*. Washington, D.C.: EPA.

³ Repace, J, I. Kawachi and S. Glantz (1999). *Fact Sheet on Secondhand Smoke*. Available online at <http://repace.com/SHSFactsheet.pdf>.

⁴ U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control (CDC) (1986). *The Health Consequences of Involuntary Smoking: A Report of the Surgeon General*. Washington D.C.: Government Printing Office (GPO).

⁵ EPA (1992).

⁶ Repace, J, I. Kawachi and S. Glantz (1999).

⁷ EPA (1992).