



Secondhand Smoke is a serious Health Risk

Secondhand Smoke is a leading preventable cause of death in the US, killing between 38,000 and 65,000 nonsmokers each year.¹

Threshold of Risk? There is no known safe level of secondhand smoke exposure.²

Lung Cancer: Secondhand smoke exposure has been shown to cause lung cancer in nonsmoking adults.³ An estimated 3,000 new cases of lung cancer per year are as a result of secondhand smoke exposure.⁴

Heart Disease: An estimated 35,000 deaths per year are attributed to heart disease as a result of secondhand smoke exposure.⁴ In 2004, new studies prompted the Centers for Disease Control to conduct a thorough literature review of secondhand smoke and heart disease. Even brief exposure to secondhand smoke may precipitate a heart attack in someone with heart disease risk factors or known heart disease. A CDC Commentary that was published in volume 328 of the British Medical Journal on April 24, 2004 states:

"...all patients at risk of coronary heart disease or with known coronary artery disease should be advised to avoid all indoor environments that permit smoking".

Stroke: There is a link between SHS and an increased risk of stroke. Regular exposure to SHS may heighten one's chance of stroke by 80%.⁵ Cigarette smoking women with cigarette smoking spouses had 6 times higher relative risk of total stroke than cigarette smoking women with nonsmoking spouses.⁶

Respiratory diseases: Secondhand smoke exposure has been shown to cause lower respiratory infections, chronic ear infections, and asthma among children and adolescents.⁷ It has also been shown to cause decreased lung function in adults as a result of childhood decreased lung growth.

New evidence: The California EPA Report (October, 2005) reports new conclusions that secondhand smoke causes:

- Heart disease (short term and long term); the risks of CHD for passive smoking are virtually indistinguishable from active smoking.
- Preterm birth
- Asthma induction in adults
- Breast cancer (especially in younger women)

Metabolic Syndrome in Teens, consisting of abdominal obesity (excess belly fat), hyperglycemia (high blood sugar), high lipids and high blood pressure, increases the risk of heart disease, stroke and diabetes (Type II). Exposure to secondhand smoke increases the risk of metabolic syndrome in teens. Tobacco use and obesity are leading causes of preventable death in the US.⁸

Cognitive Abilities in Children are affected by secondhand smoke exposure. Secondhand smoke impairs a child's ability to learn, including reading deficits and deficits in math and reasoning.⁹

Disparities exist in worker exposure. White-collar workers in NC are more likely to be protected by smokefree worksites (73.4%) than blue-collar (55.6%) and service workers (61.2%), especially among males.¹⁰

Ventilation does not protect from exposure to secondhand smoke. A new ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.) position statement reaffirms that there is no safe level of exposure to secondhand smoke, ventilation and other air filtration technologies cannot eliminate all the health risks caused by secondhand smoke exposure and tobacco smoke does not belong in indoor areas. ASHRAE encourages the elimination of indoor smoking as the optimal way to minimize secondhand smoke exposure.

The Cost of Secondhand Smoke to the U.S. economy is nearly \$10 billion a year, ranging from medical bills to lost hours on the job. This could lead life and health insurers to charge more to insure people exposed to secondhand smoke.¹¹

Additional Studies show a link between secondhand smoke and cervical cancer.¹² Children of smokers have an increased risk of several types of cancers, including nasal, kidney, lung and bladder.¹³ Secondhand smoke exposure in childhood is associated with chronic respiratory symptoms in nonsmoking adults.¹⁴ Children exposed to secondhand smoke are more likely to start smoking as adolescents.¹⁵

The Impact of Smoke Free Policies

- New studies of indoor air quality and worker exposure to secondhand smoke demonstrate immediate improvement in worker health and indoor air quality following the implementation of a smoke free workplace law
- Indoor air pollution decreased by 93% in 14 western New York bars and restaurants after implementation of the New York State Clean Indoor Air Law¹⁶

¹ National Cancer Institute. *Health Effects of Exposure to Environmental Tobacco Smoke*. Smoking and Tobacco Control Monograph No. 10. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; 1999.

² CDC – MMWR – Dec 24, 2004

³ CDC – MMWR – Dec 24, 2004

⁴ CDC. Annual smoking-attributable mortality, years of potential life lost, and economic costs—United States, 1995–1999. *Morbidity and Mortality Weekly Report* 2002;51(14):300–303.

⁵ Bonita R, Duncan J, Truelsen T, Jackson RT, Beaglehole R Passive smoking as well as active smoking increases the risk of acute stroke. *Tob Control*. 1999 Summer;8(2):156-60.

⁶ Qureshi, A.I., Fareed, M., Suri, K., Kirmani, J.F., Divani, A.A. Cigarette smoking among spouses: another risk factor for stroke in women. *Stroke*. 2005;36:e74

⁷ CDC – MMWR – Dec 24, 2004

⁸ Weitzman, M.; Cook, S.; Auinger, P.; Florin, T.A.; Daniels, S.; Nguyen, M.; Winickoff, J.P., "Tobacco smoke exposure is associated with the metabolic syndrome in adolescents," *Circulation* 2005; published online before print August 1, 2005, 10.1161/CIRCULATIONAHA.104.52065.

⁹ Yolton, K. et al., "Exposure to Environmental Tobacco Smoke and Cognitive abilities of U.S. Children and Adolescents," *Environmental Health Perspectives*, 113(1): 98-103. Available at <http://ehp.niehs.nih.gov/members/2004/7210/7210.pdf>.

¹⁰ Plescia, M.; Malek, S.; Shopland, D.; Anderson, C.; Burns, D., "Protecting Workers from Secondhand Smoke in North Carolina" *NC Medical Journal*. May/June 2005, Volume 66, Number 3 pp186-191.

¹¹ Society of Actuaries, Georgia State University, "Economic Effects of Environmental Tobacco Smoke". Available at <http://www.soa.org/cmm/content/areas-of-practice/life-insurance/research/economic-effects-of-environmental-tobacco-smoke-SOA/>.

¹² Trimble, C.L.; Genkinger, J.M.; Burke, A.E.; Hoffman, S.C.; Helzlsouer, K.J.; Diener-West, M.; Comstock, G.W.; Alberg, A.J., "Active and Passive Cigarette Smoking and the Risk of Cervical Neoplasia" *Obstetrics & Gynecology* 105(1): 174-181, January 1, 2005.

¹³ Hemminki K, Chen B. Parental lung cancer as predictor of cancer risks in offspring: Clues about multiple routes of harmful influence? *International Journal of Cancer*. 2005; Aug 10; (Epub ahead of print). DOI :10.1002/ijc.21387).

¹⁴ David, G.L.; Koh, W.; Lee, H.; Yu, M.C.; London, S.J., "Childhood exposure to environmental tobacco smoke and chronic respiratory symptoms in nonsmoking adults: The Singapore Chinese health study," *Thorax*, Published online August 30, 2005.

¹⁵ Becklake, M.R.; Ghezzo, H.; Ernst, P., "Childhood predictors of smoking in adolescence: a follow-up study of Montreal schoolchildren," *CMAJ* 173(4): 377-379, August 16, 2005.

¹⁶ CDC. Indoor Air Quality in Hospitality Venues Before and After Implementation of a Clean Indoor Air Law --- Western New York, 2003. *MMWR Morb Mortal Wkly Rep* 2004. [Available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5344a3.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5344a3.htm).