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GEORGETOWN UNIVERSITY MEDICAL CENTER
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Environmental Tobacco Smoke Information Sheet

Environmental tobacco smoke, or ETS, is also called second hand smoke.

- About half of ETS comes from the tip of a burning cigarette (sidestream) and the other comes half from exhaled smoke (mainstream).
- Cigarette smoke contains 4,000 chemicals, of which more than 60 are cancer causing agents.
- Chemicals in ETS include benzene, formaldehyde, 1,3-butadiene, polycyclic aromatic hydrocarbons, *N*-nitrosamines, carbon monoxide, and nicotine. Most of these chemicals are also found in smoke from fireplaces and barbeques.
- Sidestream smoke contains more carcinogens than mainstream smoke.
- ETS is the greatest cause of indoor air pollution.

There is no question that smoking is bad for one's health.

- Virtually every one of the hundreds of studies on smoking show that it causes lung and other cancers, heart disease, asthma, bronchitis, and birth defects.
- Smoking is the major preventable cause of death
- Smokers live about 5 to 7 years less than nonsmokers.
- We have known that smoking causes lung cancer since at least 1964, and even now the tobacco companies admit this.
- In 2004, 580 men and women were diagnosed with lung cancer in Washington, DC. The rate of lung cancer in DC is higher than the national average (58.3 versus 56.2 cases per 100,000, respectively). At least 80% of this is due to smoking and ETS. The DC Department of Health estimates that smoking causes 14% of all deaths in DC.

Second hand smoke is bad for you.

There are many studies that show ETS causes diseases such as lung cancer. This is not new news, and it is not a controversial statement.

- Inhaling ETS increases lung cancer and heart disease risk by about 25%.
- The scientific community reached consensus that ETS causes lung cancer in 1986.
- The Environmental Protection Agency concluded that ETS causes lung cancer in 1992.
- Other diseases are associated with ETS, including low birth weight, sudden infant death syndrome, ear infections, and asthma.
- Studies have shown that hospitality workers in bars and restaurants are among the people with the highest exposure to ETS. Compared with smoking in the home, restaurants can have 150% higher levels of ETS, and bars can have 400% higher levels.
- The more you are exposed to ETS, the more you increase the risk to your health.
- Some studies show that minority groups have greater exposures.



A Comprehensive Cancer Center Designated by the National Cancer Institute

It is not new news that the only known way to avoid lung cancer is to not smoke and not to inhale ETS.

- Smokefree workplace laws are an important public health measure.
- The U.S. Department of Health and Human Services *Healthy People 2010* plan calls for a reduction of persons exposed to ETS by 30%.
- DC is behind what many other states and jurisdictions have already done, including Delaware, New York, Idaho, Vermont, Connecticut, Boston, San Francisco, and Montgomery County.
- Many studies have shown that smokefree regulations dramatically reduce exposure to ETS in restaurants and bars by about 90%.
- Scientists do not know what a safe level of exposure of ETS is.
- Restrictions other than smokefree workplaces, such as isolated smoking areas, ventilation systems, and reducing hours of exposure have not been shown to adequately protect workers. These measures should be considered experimental.

What is the economic burden of ETS and policy implications of creating universal smokefree workplaces?

- In the District of Columbia, many laws and regulations exist to protect our health, such as the prevention of drunken driving, cigarette sales to minors, pollution controls, car emissions testing, requiring vaccines for school children, seat belt laws, and restricting drivers from talking on their cell phones.
- There are many published and commissioned studies, including articles published in scientific peer-reviewed journals, showing that there essentially is no adverse economic impact for bars, restaurants, and casinos that ban smoking. Frequently sales increase as the 80% nonsmoking population goes out more. Many jurisdictions have now had universal smokefree laws -- if there was a significant adverse impact, this would be known.
- Traditionally, the tobacco industry has undermined efforts to protect the public from ETS. In some cases they have partnered with, or supported, trade associations of the hospitality industry, labeling this as a possible economic or small business rights issue – ETS is a proven public health risk and it is patrons who cause indoor air pollution, not the small businesses.
- Smoking and ETS substantially increases our health care costs. The Centers for Disease Control and Prevention estimated that DC spent \$190,000,000 in 1998 on smoking attributable expenses. The average annual loss of productivity is \$219,192,000. ETS is a real part of these costs.
- Comprehensive tobacco control programs, including smokefree workplaces, restrictions and enforcement on sales to minors, bans on advertising, taxing tobacco products, warning labels, and smoking cessation campaigns that work. Each and every component is important, and is considered best practice. The states of California and Massachusetts have shown this.

Smoking and ETS cause disease. Scientific studies show that the best way to reduce our suffering is to not smoke, and not be exposed to ETS. The greatest cause of indoor air pollution is ETS, which allow nonsmokers to be exposed to cancer causing agents, nicotine and carbon monoxide. The best way to protect workers from ETS is to restrict smoking in the workplace. We do not know if lesser measures are good enough to prevent disease.

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For more information, go to:

- The National Institute on Drug Abuse InfoFact sheet discusses statistics associated with smoking and tobacco use, health hazards, promising research, and treatments that are available to help smokers quit. It is also available in Spanish. www.drugabuse.gov/Infofax/tobacco.html.
- The following booklet was created as a supplement to Treating Tobacco Use and Dependence: a Public Health Service Clinical Practice Guideline. The booklet contains evidence-based strategies and recommendations to motivate and assist smokers in choosing the best way for them to quit smoking: www.surgeongeneral.gov/tobacco/smconsumr.pdf.
- National Cancer Institute website for tobacco: www.cancer.gov/cancertopics/tobacco.
- American Cancer Society website for tobacco: www.cancer.org/docroot/PED/ped_10.asp.
- Lombardi Comprehensive Cancer Center: <http://lombardi.georgetown.edu/research/tobacco>.
- Resources links on Smokefree DC: www.smokefreedc.org/resources.htm.

For more reading material, see:

- Brownson RC, Figgs LW, Caisley LE. Epidemiology of environmental tobacco smoke exposure. *Oncogene* 2002;21(48):7341-7348.
- Stewart BW, Coates AS. Cancer prevention: a global perspective. *Journal of Clinical Oncology* 2005;23(2):392-403.
- Boffetta P, Nyberg F. Contribution of environmental factors to cancer risk. *British Medical Bulletin* 2003;68:71-94.