

ENVIRONMENTAL TOBACCO SMOKE

In January 1993 the Environmental Protection Agency (EPA) declared environmental tobacco smoke (also called ETS, secondhand smoke or passive smoke) a known human carcinogen (kar-SIN'o-jin). It was classified as an environmental toxin equivalent to asbestos and other hazardous substances. The EPA's report, "Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders," calls ETS a serious and substantial health risk for nonsmokers, particularly children.

Unfortunately, in 1998 a U.S. district judge in North Carolina, acting on a lawsuit filed by the tobacco industry, overlooked an enormous body of scientific evidence and ruled that the EPA based its 1993 report on inadequate science, failing to demonstrate a statistically significant relationship between secondhand smoke and diseases. The EPA is appealing the decision to a higher court. Shortly after the decision, evidence was found that the tobacco industry had paid several scientists to make false claims about environmental tobacco smoke.

AHA Scientific Position

Constant exposure to environmental tobacco smoke -- in the workplace or home - nearly doubles the risk of having a heart attack, according to a landmark study of more than 32,000 women. The 10-year investigation involving female nurses found a higher level of risk from passive smoking than has been seen before and provides the strongest evidence yet that exposure to smoke in the workplace is as dangerous as exposure at home. The study was published in the May 1997 issue of *Circulation*, an American Heart Association scientific journal.

The 1997 study was not the first to indicate the dangers of environmental tobacco smoke. In 1992 the American Heart Association's Council on Cardiopulmonary and Critical Care concluded that environmental tobacco smoke is a major preventable cause of cardiovascular disease and death. The statement urges that environmental smoke be treated as an environmental toxin, and that ways be found to protect workers and the public from this health hazard.

Programs aimed at further educating the public about the cardiovascular effects on nonsmokers of exposure to environmental tobacco smoke must be strengthened and remain a major component of the American Heart Association mission. This American Heart Association position statement was published in the August 1992 issue of *Circulation*.

AHA Advocacy Position

The American Heart Association continues to support the rights of nonsmokers to a smoke-free environment. In addition, we believe there needs to be continued study of the science relating to the effects of environmental tobacco smoke on heart and blood vessel diseases in nonsmokers. The American Heart Association believes that the public is entitled to be protected from environmental tobacco. Where ventilation in separately designed smoking sections is inadequate, smoking should be banned.

Background

ETS contains more than 4,000 chemicals and at least 40 known carcinogens. Nicotine, the addictive drug contained in tobacco, leads to acute increases in heart rate and blood pressure. Cigarette smoking also increases platelet aggregation (ag"reh-GA'shun), or blood clotting. It also damages the endothelium (en"do-THE'le-um), the layer of cells that lines all blood vessels, including the coronary arteries. Also, nonsmokers who have high blood pressure or high blood cholesterol are at even greater risk of developing heart diseases from exposure to ETS.

The 1986 Report of the Surgeon General, as well as studies by the National Academy of Sciences (NAS), thoroughly document the health hazards posed by passive smoking. Evidence of the hazards of involuntary tobacco smoking continues to mount. A January 1991 report published in *Circulation* cited a set of epidemiological (ep"e-de"me-o-LOJ'ih-kl) studies linking heart disease with passive exposure to tobacco smoke. **The report concluded that exposure to environmental tobacco smoking causes about 10 times as many deaths from heart and blood vessel diseases as it does from cancer.**

A June 1991 report on passive smoke in the workplace, published by the National Institute for Occupational Safety and Health, said that "the risk of developing cancer should be decreased by minimizing exposure" to environmental tobacco smoke. Employers should assess conditions that may result in worker exposure to passive smoke and take steps to reduce exposures to the lowest feasible concentration. The best way to control workers' exposure to tobacco smoke is to eliminate tobacco use from the workplace and to implement a smoking cessation program.