

A growing body of evidence suggests there are no safe levels of exposure to secondhand smoke (SHS) —for humans or for animals. In the 2006 Surgeon General’s Report, *The Health Consequences of Involuntary Exposure to Tobacco Smoke*, it confirms that animals, too, face health risks when exposed to the toxins in secondhand smoke.¹ This is an issue that is being addressed on all fronts, from public health to animal rights. In December 2008, the New York City Department of Health issued an advisory for residents, urging smokers to make their household “smoke-free”² noting that even cats and dogs whose owners smoke have higher rates of cancer. Meanwhile the largest animal rights group in the United States, the American Society for the Prevention of Cruelty to Animals, lists tobacco smoke as a toxin that is dangerous to pets.³

Educating people about the dangers of smoking to their own bodies and providing information about secondhand smoke’s effect on humans have been priorities of our foundation’s work. Given the research on SHS and pets, Legacy reminds pet owners about the vulnerability of their pets if the pets live in a smoking household and encourages them to quit smoking for their pets.

Pet Owner Attitudes and Behaviors

- Sixty-three percent (63%) of US households (71 million homes) have a pet in the home.⁴
- More than a quarter (27 percent) of non-smoking pet owners live with at least one smoker, according to one study.⁵
- Pet owners who smoke reported that information on the dangers of pet exposure to SHS would motivate them to try to quit smoking.⁵
- Non-smoking pet owners who live with smokers said that information on the dangers of pet exposure to SHS would motivate them to ask the people with whom they live to quit (16.4%).⁵

About 40 percent of current smokers and 24 percent of non-smokers living with smokers indicated that they would be interested in receiving information on smoking, quitting, or SHS.⁵

Pet Exposure to SHS

- An association has been found between the total number of smokers in a household and the number of packs of cigarettes smoked each day, with the cotinine (a byproduct of nicotine) levels in the urine of pet dogs in that household.⁶
- SHS can affect other domesticated pets including rabbits. In one experiment, exposure to high levels of cigarette smoke in laboratory rabbits fed a high cholesterol diet caused higher levels of atherosclerosis, the build up of fats and lipids on artery walls.⁷
- Observers have also noted associations between SHS exposure and allergic reactions in dogs; eye disease, respiratory problems and dermatitis in birds; and oral carcinoma in cats.⁸
- Along with the reduction in ability of blood to deliver oxygen to the heart, SHS also impairs the ability of the heart muscle to convert oxygen into adenosine triphosphate (ATP), which is used for energy. One study saw cough and wheeze symptoms in laboratory guinea pigs exposed to secondhand smoke.¹

Pets and Cancer due to SHS

- Exposure to smoke may be linked with nasal cancer and lung cancer in dogs. Among dogs with the highest level of secondhand smoke exposure, long-nosed dogs were 2.5 times more likely to develop nasal cancer than other dogs.^{9,10}
- Exposure to smoke has been linked with lymphoma in cats.¹¹

SOURCES

¹Surgeon General, The Health Consequences of Involuntary Exposure to Tobacco Smoke (Washington: U.S. Government Printing Office, 2006).

²New York City Department of Health and Mental Hygiene. Health Bulletin: How to Make Your Home Smoke-Free.2008. Available at: <http://www.nyc.gov/html/doh/downloads/pdf/public/dohmhnews7-08.pdf>.

³<http://www.aspca.org/site/News2?page=NewsArticle&id=17585>.

⁴American Pet Products Manufacturers Association. Pet Ownership Industry Statistics and Trends. http://www.appma.org/press_industrytrends.asp (accessed 28 July 2008).

⁵Milberger S, Davis R, Holm A. (2009, Feb 10) Pet Owners' Attitudes and Behaviors Related to Smoking and Secondhand Smoke: A Pilot Study. *Journal of Tobacco Control*. <http://tobaccocontrol.bmj.com/cgi/content/abstract/tc.2008.028282v1>.

⁶Kelsey, J., Moore, A. and Glickman, L. Epidemiologic Studies of Risk Factors for Cancer in Pet Dogs. *Epidemiologic Reviews*. 1998; 20: 204-17.

⁷Surgeon General, The Health Consequences of Involuntary Exposure to Tobacco Smoke (Washington: U.S. Government Printing Office, 2006), p. 58.

⁸Citizens Against Unhealthy Smoke-filled Environments. Second hand smoke and pets. <https://portfolio.du.edu/portfolio/getportfoliofile?fiuid=19523> (accessed 1 Sep 2008).

⁹Reif JS, Bruns C, Lower KS. Cancer of the nasal cavity and paranasal sinuses and exposure to environmental tobacco smoke in pet dogs. *Am J Epidemiol* 1998;147:488-9.

¹⁰Reif JS, Dunn K, Ogilvie GK, et al. Passive smoking and canine lung cancer risk. *Am J Epidemiol* 1992;135:234-9.

¹¹Bertone ER, Snyder LA, Moore ES. Environmental tobacco smoke and risk of malignant lymphoma in pet cats. *Am J Epidemiol* 2002;156:268-73.