

FACT SHEET

Second-hand Smoke and “Junk Science”

MYTH “Second-hand smoke (SHS) is just a nuisance.”

FACT SHS is more than a nuisance. It's a toxic mix of chemicals with no safe level of exposure. More than 4,000 chemicals have been identified in SHS.¹ In 1992 the U.S. Environmental Protection Agency (EPA) classified SHS as a “Group A” (known human) carcinogen. This classification placed SHS amongst the most dangerous cancer-causing compounds known to science, including arsenic, asbestos, benzene and vinyl chloride.²

MYTH “Links between SHS and death and disease have not been found.”

FACT Health Canada reports that this year, 700 non-smokers will die of coronary heart disease³, and 300 will die of lung cancer.⁴ These are conservative figures, as they only account for home exposure to SHS and not exposure in the workplace. In children, SHS exposure can cause low birth weight, Sudden Infant Death Syndrome (SIDS), bronchitis, pneumonia, middle ear infections, and asthma.⁵ The website for Philip Morris USA, manufacturer of Marlboro, even states that, “...the public should be guided by the conclusions of public health officials regarding the health effects of second-hand smoke...”⁶

Graphic health warnings appear on cigarette packages sold in Canada. Canadian cigarette manufacturers had a chance to challenge the scientific validity of these warnings in court, but chose not to. Sadly, Heather Crowe is a prime example of the truth of these warnings. A waitress for 40 years who never smoked a day in her life, Heather is now dying from lung cancer.⁷

MYTH “Public health authorities use 'junk science' to scare the public about SHS.”

FACT The term “junk science” is used by the tobacco industry to discredit the scientific evidence on SHS, and is part of a wider strategy to deceive and create controversy where none exists. Opponents have used the call for “sound science” and the quest for absolute proof as a delay tactic to undermine public health efforts and derail regulatory action. C Everett Koop, the U.S. Surgeon General from 1981-1989, states that, *“I frequently spoke of the sleazy behaviour of the tobacco industry in its attempts to discredit legitimate science as part of its overall effort to create controversy and doubt. Well-funded tobacco interests attacked (and continue to attack) not only the surgeon general, but also the Environmental Protection Agency, the Food and Drug Administration, the Occupational Safety and Health Administration, and individual scientists who are working to end the scourge of tobacco.”*⁸ Despite what the tobacco industry says, there is no legitimate or science-based controversy about SHS.

MYTH “The Osteen decision proves that the US Environmental Protection Agency (EPA) used “junk science” to classify SHS as a carcinogen.”

FACT The tobacco industry, through its various fronts, frequently refers to Judge William Osteen's decision that struck down the findings of the 1992 US EPA report which said that SHS causes death and disease (*Flue-Cured Tobacco Cooperative Stabilizing Corporation v. EPA*). What the industry fails to tell people is that this decision was successfully appealed. On December 11, 2002, an appeal court unanimously upheld the EPA report and rejected the tobacco industry's claim.⁹ Nonetheless, opponents to smoke-free by-laws still refer to Osteen's decision as proof that SHS is not harmful, and that tobacco control advocates use junk science to push their agenda.

MYTH “An International Agency for Research on Cancer (IARC) study showed no link between SHS and lung cancer.”

FACT The 1998 IARC study, authored by Boffetta et al., had results consistent with many other similar SHS studies: increased risk of lung cancer for non-smokers. However, due to some statistical problems, opponents quickly denounced the validity of the entire study. Big Tobacco was worried about this study triggering increased SHS restrictions in Europe, as the 1992 EPA report had done in the States. As Ong & Glantz point out, the budget for the IARC study was approximately \$1.5 million over 10 years, whereas Philip Morris poured an incredible \$2 million (in a one year period alone) into an elaborate plan to discredit IARC's work.¹⁰

Although tobacco companies accuse public health advocates of using junk science, they themselves are masters of the game. A perfect example is the Enstrom study, published in 2003 in the *British Medical Journal*. This study, authored by two tobacco industry consultants and funded in part by US tobacco companies, reported no significant associations between SHS exposure and tobacco-related mortality. Despite being riddled with methodological errors and patently misusing data from the American Cancer Society, the study received significant media attention and undoubtedly added confusion to the SHS issue in the public domain.

MYTH “Conferences and books on 'junk science' prove that the topic is worthy of academic debate.”

FACT When the tobacco industry cannot penetrate prestigious scientific forums like the *British Medical Journal* to advance its cause, it instead holds conferences, invites paid consultants and publishes “proceedings.” These are all outside of the normal, scientifically valid, peer-review process.

One name that keeps popping up at such forums is John Luik. Luik can be considered the Canadian king of junk science, and is one of the world's most widely used tobacco consultants. In 1999 he co-authored a book with Gio Gori entitled *Passive Smoke: The EPA's Betrayal of Science and Policy*. As James Repace, one of the world's leading authorities on SHS, and a retired senior scientist at the EPA, comments, “*Gori and Luik simply repeat erroneous industry pseudo-scientific arguments... which have been analyzed and rejected by mainstream science.*”¹¹

- ¹ National Cancer Institute. (2001). Risks associated with smoking cigarettes with low machine-measured yields of tar and nicotine. Smoking and Tobacco Control Monograph No. 13. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute.
- ² U.S. Environmental Protection Agency (1993). Fact sheet: Respiratory health effects of passive smoking. Available on-line: www.epa.gov/smokefree/pubs/etsfs.html
- ³ De Groh, M., & Morrison, H. I. (2002). Environmental tobacco smoke and deaths from coronary heart disease in Canada. *Chronic Diseases in Canada*, vol. 23, n.1. Available on-line: www.hc-sc.gc.ca/pphb-dgspsp/publicat/cdic-mcc/23-1/b_e.html
- ⁴ Makomaski Illing, E., & Kaiserman, M. J. (1999). Mortality attributable to tobacco use in Canada and its regions, 1994-1996. Available on-line: www.hc-sc.gc.ca/hecs-sesc/tobacco/research/archive/cd203b_e.html
- ⁵ National Cancer Institute. (1999). Health Effects of Exposure to Environmental Tobacco Smoke: The Report of the California Environmental Protection Agency. Smoking and Tobacco Control Monograph no. 10. Bethesda, MD. U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute.
- ⁶ Philip Morris USA. Available on-line: www.philipmorrisusa.com/health_issues/secondhand_smoke.asp
- ⁷ Health Canada. (2004). Available on-line: www.hc-sc.gc.ca/hecs-sesc/tobacco/facts/blueribbon/heather
- ⁸ C. Everett Koop. (1996). *Forward: The cigarette papers*. By Glantz, et al. University of California Press, Ltd.
- ⁹ Ontario Campaign for Action on Tobacco. Available on-line: www.ocat.org/opposition/pubco.html
- ¹⁰ Ong, E. K., & Glantz, S. A. (2000). Tobacco industry efforts subverting International Agency for Research on Cancer's second-hand smoke study. *Lancet*, 355:1253-59.
- ¹¹ Non-Smokers' Rights Association. (1999). *The Fraser Institute: Economic Think Tank or Front for the Tobacco Industry?* Available on-line: www.nsra-adnf.ca/DOCUMENTS/PDFs/nfraser.pdf