

Cancer and Other Serious Hazards of Cigar Smoking: A Cancer Society Fact Sheet



Key points:

- Cigar smoking is addictive and causes cancer (e.g. cancers of the lung, throat, gullet and voice box).
- Cigar smoking causes other serious illnesses (e.g. heart disease and serious lung diseases such as emphysema and chronic bronchitis).
- The second-hand smoke from cigars contains cancer-causing chemicals and other toxins that harm others.
- The levels of toxins and the amount of second-hand smoke from a burning cigar are worse than from a cigarette.
- Cigarette smokers switching to cigars might reduce their health risks if they don't inhale the cigar smoke. But they would protect their health much more if they completely quit smoking.

The similarities and differences with cigarettes

Both cigars and cigarettes contain tobacco. With a cigar the tobacco contents are wrapped in tobacco, in contrast to the paper used for wrapping the cigarettes. The tobacco leaves used in cigars are first aged for around a year, and then fermented for up to several months after that. This process results in chemical and bacterial reactions that change the tobacco, and give cigars a different smell and taste from cigarettes. Some cigars are as small as a cigarette (e.g. a cigarillo) while larger ones may have as much tobacco as in a whole pack of 20 cigarettes.

Cigar smoking in New Zealand: Cigar smoking is uncommon in New Zealand. Since the year 2000 the amount of cigar tobacco consumed has been declining – from 24 tonnes in 2000 to 16 tonnes in 2004.¹ However, some survey data in the late 1990s suggested a possible period of increasing cigar use among adults, Māori and young adults aged 15–24 years.²

Cigars and addiction

Nicotine is the substance in tobacco that causes addiction, and most cigars have as much nicotine as several cigarettes (with some the equivalent of a whole pack of 20).³ If cigar smokers inhale, then the nicotine is absorbed as rapidly as it is with cigarettes. For those who do not inhale cigar smoke, then the nicotine is absorbed more slowly through the lining of the mouth. But this will usually still cause addiction – just as people who use oral smokeless tobacco become addicted to this form of tobacco. The American Cancer Society has concluded that smoking cigars instead of cigarettes does not reduce the risk of nicotine addiction.³ The famous psychiatrist Sigmund Freud was addicted to cigars and kept smoking cigars even after many operations for oral cancer.⁴

Cancer from cigar smoking

Cigar smoking increases the risk of death from: lung cancer, cancer of the oral cavity (lip, tongue, mouth, throat), cancer of the gullet (i.e. the oesophagus or the tube connecting the mouth to the stomach), and cancer of the voice box (larynx).^{3, 5–8} Cigar smoking is also linked to bladder cancer^{7, 9}, cancer of the pancreas⁷ and stomach cancer.¹⁰ As with

cigarette smoking, the risks of cancer increase with the number of cigars smoked and the risk of death approaches that of cigarette smoking at higher levels of use.³

For cigar smokers who do not inhale, the tobacco smoke does not reach their lungs in the same quantity as it does in cigarette smokers. Therefore, the risk of death from lung cancer is not as high as it is for cigarette smokers, though it is still much higher than the risk for non-smokers.⁵ However, cigar smokers who do not inhale have similar risks of oral and gullet cancers to cigarette smokers.⁵ Given this information it is likely that cigarette smokers switching to cigars might reduce their overall health risks if they don't inhale the cigar smoke. But they would protect their health much more if they completely quit smoking.

The American Cancer Society reports that a new trend among cigar companies is to change the curing and fermenting process of their products to make them easier to inhale.¹¹ However, these changes also increase the levels of toxic ingredients and so is likely to increase the risk of cancer among cigar smokers.

Other health problems from cigar smoking

As with cigarette smoking, cigar smoking increases the risk of heart disease and serious lung diseases such as emphysema and chronic bronchitis (especially for people who inhale).^{5, 6, 8, 12} Cigarette smokers who have switched to cigar or pipes continue to show increased risk of heart attacks and stroke.^{6, 8} There is also evidence that cigar smoking is linked to impotence in men (i.e. difficulty achieving an erection).¹³ As with cigarette smoking, cigar smoking has been linked to two causes of blindness: cataracts and age-related macular degeneration (a common and untreatable cause of blindness).^{14, 15} It is also linked with mouth disease (i.e. periodontal disease) and tooth loss.¹⁶

Second-hand cigar smoke

As cigars contain more tobacco than cigarettes, and because they usually burn for much longer, they give off greater amounts of second-hand smoke than cigarettes. It can take five hours for the smoke from a single cigar burned in a home to clear.⁵ Cigar smoke contains higher concentrations of toxic and cancer-causing compounds than cigarettes.³ Some of the toxins or irritants in cigar smoke include: nicotine, carbon monoxide, hydrogen cyanide, and ammonia.¹¹ The cancer-causing chemicals in cigar smoke include: benzene, aromatic amines, vinyl chloride, ethylene oxide, arsenic, chromium, cadmium, and nitrosamines.

There are some differences between cigar and cigarette smoke, due to the long aging and fermentation process used for cigars. This means that cigar tobacco has a high concentration of several tobacco-specific nitrosamines that are some of the most potent cancer-causing chemicals known. Also, because the cigar wrapper is less porous than cigarette paper, the tobacco inside doesn't burn as completely compared to the tobacco in cigarettes. One result of this is that cigar smoke has higher concentrations of nitrogen oxides, ammonia, carbon monoxide and tar (all of which are harmful to health).

Tobacco control and cigar smoking

Cigar smoking in some developed countries appears to have been promoted by tobacco industry marketing that glamorises cigars. There has also been celebrity endorsements for cigar smoking and promotion through "lifestyle" magazines that minimise the issue of harm to health.^{3, 17, 18} In New Zealand, the law prohibits tobacco product advertising and promotion – which includes cigars. Despite this, certain cigar lifestyle magazines and columns have previously been published in New Zealand² and this has possibly involved breaking the law. Tobacco taxes¹⁹ and successful smokefree environments legislation²⁰ are likely to be reducing the uptake

of cigar use and reducing harm to others from second-hand smoke. If tax increases do not include cigars (i.e. cigarettes only) then cigar use can increase as smokers who don't quit switch products.²¹

In New Zealand more could be done in terms of having higher taxes on all tobacco products – including cigars. There also plans for new warnings to be put on cigar packaging (as of 200622). Any regulations that are applied to cigarettes should also apply to cigars (e.g. the regulation of tobacco product content).

Acknowledgements: The Cancer Society is grateful for publications from the American Cancer Society and thanks those staff and other public health professionals who provided input into, and critique of, this Fact Sheet.

References

1. Ministry of Health. Tobacco Facts 2005. Wellington: Public Health Intelligence, Ministry of Health. [http://www.moh.govt.nz/moh.nsf/by+unid/8BDA21625203A2DDCC25708B00783A1F?](http://www.moh.govt.nz/moh.nsf/by+unid/8BDA21625203A2DDCC25708B00783A1F?Open) Open; 2005.
2. Durham G, Allen M, Price L, et al. Advertising bans and cigars. *N Z Med J*. 2000;113:294-296.
3. Baker F, Ainsworth SR, Dye JT, et al. Health risks associated with cigar smoking. *JAMA*. 2000;284:735-740.
4. Adeyemo WL. Sigmund Freud: smoking habit, oral cancer and euthanasia. *Niger J Med*. 2004;13:189-195.
5. National Cancer Institute. Cigars: Health Effects and Trends. Monograph (No. 9). Rockville, Maryland: National Cancer Institute. Available at: <http://cancercontrol.cancer.gov/tcrb/monographs/9/>. Accessed 5 March 2006.; 1998.
6. Shaper AG, Wannamethee SG, Walker M. Pipe and cigar smoking and major cardiovascular events, cancer incidence and all-cause mortality in middle-aged British men. *Int J Epidemiol*. 2003;32:802-808.
7. Shapiro JA, Jacobs EJ, Thun MJ. Cigar smoking in men and risk of death from tobacco-related cancers. *J Natl Cancer Inst*. 2000;92:333-337.
8. Iribarren C, Tekawa IS, Sidney S, Friedman GD. Effect of cigar smoking on the risk of cardiovascular disease, chronic obstructive pulmonary disease, and cancer in men. *N Engl J Med*. 1999;340:1773-1780.
9. Pitard A, Brennan P, Clavel J, et al. Cigar, pipe, and cigarette smoking and bladder cancer risk in European men. *Cancer Causes Control*. 2001;12:551-556.
10. Chao A, Thun MJ, Henley SJ, et al. Cigarette smoking, use of other tobacco products and stomach cancer mortality in US adults: The Cancer Prevention Study II. *Int J Cancer*. 2002;101:380-389.
11. American Cancer Society. Cigar Smoking [Fact Sheet]: American Cancer Society http://www.cancer.org/docroot/PED/content/PED_10_2X_Cigar_Smoking.asp?sitearea=PED (Accessed 6 March 2006); 2005.
12. Jacobs EJ, Thun MJ, Apicella LF. Cigar smoking and death from coronary heart disease in a prospective study of US men. *Arch Intern Med*. 1999;159:2413-2418.
13. Feldman HA, Johannes CB, Derby CA, et al. Erectile dysfunction and coronary risk factors: prospective results from the Massachusetts male aging study. *Prev Med*. 2000;30:328-338.

14. Krishnaiah S, Das T, Nirmalan PK, et al. Risk factors for age-related macular degeneration: findings from the Andhra Pradesh eye disease study in South India. *Invest Ophthalmol Vis Sci.* 2005;46:4442-4449.
15. Krishnaiah S, Vilas K, Shamanna BR, et al. Smoking and its association with cataract: results of the Andhra Pradesh eye disease study from India. *Invest Ophthalmol Vis Sci.* 2005;46:58-65.
16. Albandar JM, Streckfus CF, Adesanya MR, Winn DM. Cigar, pipe, and cigarette smoking as risk factors for periodontal disease and tooth loss. *J Periodontol.* 2000;71:1874-1881.
17. Wenger LD, Malone RE, George A, Bero LA. Cigar magazines: using tobacco to sell a lifestyle. *Tob Control.* 2001;10:279-284.
18. Symm B, Morgan MV, Blackshear Y, Tinsley S. Cigar smoking: an ignored public health threat. *J Prim Prev.* 2005;26:363-375.
19. Wilson N, Thomson G. Tobacco tax as a health protecting policy: a brief review of the New Zealand evidence. *N Z Med J.* 2005;118:U1403.
20. Thomson G, Wilson N. One year of smokefree bars and restaurants in New Zealand: Impacts and responses. *BMC Public Health.* 2006;6:64.
21. Delnevo CD, Hrywna M, Foulds J, Steinberg MB. Cigar use before and after a cigarette excise tax increase in New Jersey. *Addict Behav.* 2004;29:1799-1807.
22. Ministry of Health. Review of the Smoke-free Environments Regulations 1999 Health warnings on tobacco products - Consultation Document. Wellington: Ministry of Health. <http://www.moh.govt.nz/forums.html>; 2006.