

“LIGHT” AND “LOW-TAR” CIGARETTES

Frequently Asked Questions (FAQs)

1. What do tobacco companies mean when they use the terms “low-tar”, “light”, “ultra-light”, or similar terms?

Terms such as “light” and “low-tar” are misleading descriptors developed by the tobacco industry to imply that these cigarettes are less harmful than regular cigarettes.¹

“Light” and “low-tar” cigarettes take their name from the fact that, when measured by smoking machines, they deliver less tar and nicotine than regular cigarettes.² Although there is no international standard, “light” and “low-tar” generally indicate that a cigarette delivers less than 15mg tar and less than 1mg nicotine when tested by a smoking machine.² However, machine puffing is not consistent with human smoking behavior, and the smoking machine test has been shown to systematically underestimate human smoking behavior.³

Internal tobacco industry documents *spanning several decades* show that the industry knew smoking machine measurements would underestimate how much tar and nicotine a smoker actually receives.² Smokers of “low-tar” and “light” cigarettes tend to take larger puffs, puff more frequently, or inhale more deeply.⁴ Therefore, the inhaled smoke of one “low-tar” or “light” cigarette may contain almost 2 to 3 times the amount of tar and nicotine, compared to the same cigarette smoked by the “smoking” machines.²

2. What accounts for the difference in tar levels as measured by smoking machines?

In response to the introduction of machine testing, tobacco companies made changes in cigarette design to reduce machine-measured tar and nicotine yield, but not the amount human smokers receive. Tobacco companies design cigarettes to be, in their terms, elastic or flexible so that smokers can easily increase their tar and nicotine intake by smoking more intensively than standard smoking machines.⁵

Tobacco companies reduce the concentration of smoke per puff taken by smoking machines by deliberately adding ventilation holes in “light” and “low-tar” cigarette filters. These ventilation holes bring in air and dilute smoke, leading to artificially low machine measurements of tar and nicotine.^{2,4,6} Smokers, however, often block ventilations holes with their fingers or lips, taking in more tar and nicotine than the machines do.

3. Is the difference in tar levels measured by machines attributable solely to ventilation holes or are there other ways tobacco companies manipulate cigarette design?

The difference in tar levels measured by machines is not solely attributable to ventilation holes. There are other cigarette design features that allow smokers to get much higher levels of tar and nicotine compared to machine-test levels. Some

design features carefully engineered by the tobacco industry include²:

- Manipulating filters (e.g. ventilated filters, longer filters, denser filters, active filters).
- Decreasing the density of tobacco with reconstituted sheet tobacco, expanded tobacco leaves (e.g. using High Expanding Dryers, also known as HXD), flavorings and additives, smaller circumference cigarettes.
- Blending tobacco with lower nicotine yield tobacco strains and different parts/leaf positions of plants.
- Chemically treating cigarette paper to make the cigarette burn faster, thus reducing the number of puffs that smoking machines can take.²

When tested by smoking machines, cigarettes with these characteristics produce lower levels of tar and nicotine in machine tests than cigarettes without these characteristics. However, these same cigarette design changes result in smokers compensating for the lower amounts of nicotine they receive by taking larger puffs, puffing more frequently or inhaling more deeply, and therefore inhaling greater amounts of nicotine and tar than “smoking” machines do.

4. Is there a safe level of tar in a cigarette?

There is no known safe level of tar. Tar is formed when tobacco and other ingredients in cigarettes burn when the cigarette is lit. There is no such thing as a safe cigarette.^{7,8} The only way a smoker can improve his or her health is to quit smoking.

5. Can tar be completely removed from a cigarette?

No. Tar is not actually an ingredient in a cigarette. Tar is a product of combustion, and is produced by burning tobacco or other organic materials, including chocolate, cloves and other substances that cigarette manufacturers add to many cigarettes.^{9,10} Tar emissions cannot be eliminated if the cigarette is going to burn or even smolder at high temperatures.

6. Are cigarettes labeled with “low-tar” numbers or labeled “light” better for one’s health than others?

No. Evidence shows that “low-tar” or “light” cigarettes, when smoked by humans, offer no health benefit and are just as harmful as regular cigarettes.² In addition, smokers of “low-tar” and “light” cigarettes tend to take larger puffs, puff more frequently, inhale more deeply, and block ventilation holes with their fingers or lips to obtain their desired dose of nicotine.⁴

Researchers now believe “light” and “low-tar” cigarettes may be associated with a rise in smoking-related adenocarcinoma, a rare form of lung cancer that is now the most commonly diagnosed form of lung cancer.¹¹⁻¹⁶

“LIGHT” AND “LOW-TAR” CIGARETTES: Frequently Asked Questions

International bodies such as the World Health Organization, the European Union, the United States National Cancer Institute, and all parties to the Framework Convention on Tobacco Control agree that cigarette packages labeled “low-tar” or “light” are inaccurate and misleading, and should be banned.

7. The United States Federal Trade Commission (FTC) revoked its cigarette testing method in 2008. What does this mean?

Guidance issued by the FTC in 1966 permitted statements concerning tar and nicotine yields to be based on a smoking machine test known as the Cambridge Filter Method, commonly called “the FTC method.” In 2008, the FTC revoked this guidance. Now, tobacco companies in the U.S. market risk legal action by the FTC if they use the current tar and nicotine ratings in a way the FTC finds false or misleading.

FTC’s action has major implications for tobacco marketing around the world because the FTC test method is the same as the standard adopted by the International Standards Organization and is used widely around the world to measure tar and nicotine levels in cigarettes. The tobacco industry uses the same method to test and market so called “light” and “low” or “safer” cigarettes around the world.

8. What steps should smokers take to improve their health?

The only way to improve a smoker’s health is to quit. Quitting at any age can reduce the risk of disease and premature death.⁷

“Low-tar” and “light” cigarettes are not healthier than regular cigarettes, and smoking “light” or “low-tar” cigarettes is not a healthier alternative to quitting.

9. For the smokers who cannot quit immediately, is it better to smoke “light” or “low-tar” cigarettes rather than regular cigarettes?

No, “light” and “low-tar” cigarettes offer no health benefit and are just as harmful as regular cigarettes.² When smoked by humans, these cigarettes can deliver as much tar and nicotine as regular cigarettes.²

In fact, researchers now believe “light” and “low-tar” cigarettes may be associated with a rise in smoking-related adenocarcinoma, a previously rare form of lung cancer that is now the most commonly diagnosed form of lung cancer.¹¹⁻¹⁶

10. Do tobacco companies depend on “light” and “low-tar” cigarettes as a part of their growth strategy?

Yes. As early as the 1960s, the tobacco industry feared a loss in profits from health-concerned smokers, and therefore introduced “light” and “low-tar” cigarettes. The industry began

marketing these cigarettes as lower in tar and nicotine to reassure consumers and encourage health-concerned smokers to switch rather than quit smoking.^{2,17}

Today, the tobacco industry has begun to expand its efforts to market “light” and “low-tar” cigarettes into nations with rapidly-growing economies where the health concerns related to tobacco use are steadily increasing. The industry spends billions of dollars marketing these cigarettes worldwide each year and uses deceptive marketing tactics to convince health-concerned smokers to switch rather than quit.

The marketing of “light” and “low-tar” cigarettes has resulted in hundreds of billions of dollars in sales for the tobacco industry, and tragic results for smokers.

11. Does the World Health Organization Framework Convention on Tobacco Control (FCTC) ban the use of the terms “light” and “low-tar”?

Yes. Article 11 of the FCTC requires nations that ratified the FCTC to ban use of misleading descriptors such as “light” and “low-tar” on cigarette packaging and labeling:¹⁸

FCTC Article 11.1. Each Party shall, within a period of three years after entry into force of this Convention for that Party, adopt and implement, in accordance with its national law, effective measures to ensure that:

(a) tobacco product packaging and labeling do not promote a tobacco product by any means that are false, misleading, deceptive or likely to create an erroneous impression about its characteristics, health effects, hazards or emissions, including any term, descriptor, trademark, figurative or any other sign that directly or indirectly creates the false impression that a particular tobacco product is less harmful than other tobacco products. These may include terms such as “low-tar”, “light”, “ultra-light” or “mild”.

11a. Does the FCTC require tobacco companies to list the ingredients of cigarettes including the tar level?

Article 11 of the FCTC states that packs should “contain information on relevant constituents and emissions of tobacco products as defined by national authorities.” It does not, however, require that tar levels should be included on tobacco packages. In fact, Article 11 Guidelines recommends banning the listing of tar levels if it might imply that one brand is less harmful than another.

“LIGHT” AND “LOW-TAR” CIGARETTES: Frequently Asked Questions

FCTC Article 11 Guidelines state that “In implementing this obligation, Parties should require that relevant qualitative statements be displayed on each unit packet or package about the emissions of the tobacco product. Examples of such statements include:

- “Smoke from these cigarettes contains benzene, a known cancer-causing substance.”
- “Smoking exposes you to more than 60 cancer-causing chemicals.”

In addition, “Parties should not require quantitative or qualitative statements on tobacco product packaging and labeling about tobacco constituents and emissions that might imply that one brand is less harmful than another, such as the tar, nicotine and carbon monoxide figures, or statements such as “These cigarettes contain reduced levels of nitrosamines.”

12. Have governments or courts around the world taken action against tobacco companies for using misleading descriptors such as “light” and “low-tar”?

Yes. Many nations now restrict or ban the use of deceptive marketing tactics, including misleading descriptors such as “light” and “low-tar” in cigarette advertising. In fact, more than 60% of the world’s population now lives in countries that ban deceptive marketing terms.¹⁹

On June 5, 2001, the European Union (EU) passed legislation that bans “texts, names, trademarks and figurative or other signs suggesting that a particular cigarette is less harmful than others.” The US has now banned misleading terms under the Family Smoking Prevention and Tobacco Control Act which was signed by President Obama on June 22, 2009.²⁰ Other nations across the globe have taken steps to ban misleading cigarette packaging and labeling, including:

- Eastern Europe (Ukraine)
- Latin America (Brazil, Chile, Venezuela, Panama)
- East Asia and Southeast Asia (Thailand, China, India)
- Middle East (Iran, Turkey)

13. What measures can be taken to counter the “light” and “low-tar” fraud?

Leaders worldwide must work toward the creation of policies under the Framework Convention on Tobacco Control that will prevent this public health tragedy from continuing to spread throughout the world. Action must be taken by both governments and civil society to effectively implement Article 11 of the FCTC.

1. World Health Organization (WHO). Scientific Advisory Committee on Tobacco Product Regulation. SACToB conclusions on health claims derived from ISO/FTC method to measure cigarette yield. Geneva: WHO; 2003. Available from: http://www.who.int/tobacco/sactob/recommendations/en/iso_ftc_en.pdf.
2. National Cancer Institute. Risks associated with smoking cigarettes with low machine-measured yields of tar and nicotine. Smoking and Tobacco Control Monograph no. 13. Bethesda, MD: National Cancer Institute; 2001 October Contract No.: NIH Pub. No. 02-5074. Available from: http://dcccps.nci.nih.gov/trcb/monographs/13/m13_5.pdf.
3. Hammond D, Wiebel F, Kozłowski LT, Borland R, Cummings KM, O’Connor RJ, et al. Revising the machine smoking regime for cigarette emissions: implications for tobacco control policy. *Tobacco Control*. 2007 Feb;16(1):8-14.
4. Canada Ministerial Advisory Council on Tobacco Control. Putting an end to deception: Proceedings of the International Expert Panel on Cigarette Descriptors. Quebec: Canada Ministerial Advisory Council on Tobacco Control; 2002. p.4.
5. NOVA. Search for a safe cigarette [documentary]. 2001.
6. Kozłowski LT, O’Connor R. Cigarette filter ventilation is a defective design because of misleading taste, bigger puffs, and blocked vents. *Tobacco Control*. 2002;11:i40-i50.
7. US Department of Health and Human Services. The health consequences of smoking: A report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2004. p.25.
8. British American Tobacco (BAT). Cigarette Ingredients. London: BAT; 2008 [updated 2007 Oct 31 cited 2008 Mar 6]; Available from: http://www.bat.com/group/sites/uk__3mnfen.nsf/vwPagesWebLive/DO52AMK5?opendocument&SKN=3&TMP=1.
9. American Heritage Dictionary of the English Language. 4th ed: Houghton Mifflin Company; 2004. Definition of Tar.
10. American Heritage Science Dictionary. Houghton Mifflin Company; 2002. Definition of Tar.
11. Strauss G. Presentation at the 12th World Conference on Lung Cancer. 2007.
12. Stellman SD, Muscat JE, Thompson S, Hoffmann D, Wynder EL. Risk of squamous cell carcinoma and adenocarcinoma of the lung in relation to lifetime filter cigarette smoking. *Cancer*. 1997;80(3):382-8.
13. Russo A, Crosignani P, Franceschi S, Berrino F. Changes in lung cancer histological types in varesa cancer registry. *European Journal of Cancer*. 1997;33(10):1643-47.
14. Osann K. Epidemiology of lung cancer. Current opinions in pulmonary medicine. 1998;4(4):198-204.
15. Wynder EL, Muscat JE. The changing epidemiology of smoking and lung cancer histology. *Environmental health perspectives*. 1995;103 Supplement 8:143-8.
16. Low-tar cigarettes linked to cancer upsurge. BBC news; 1999 [November 18]; Available from: www.news.bbc.co.uk
17. Tindle H, Rigotti N, Davis R, Barbeau E, Kawachi I, Shiffman S. Cessation among smokers who used “light” cigarettes: results from the 2000 National Health Interview Survey. *American Journal of Public Health*. 2006;96(8):1-7.
18. World Health Organization (WHO). Framework Convention on Tobacco Control (FCTC). Geneva: WHO; 2003. Available from www.who.int/ftc/en/.
19. World Health Organization (WHO). WHO Report on the global tobacco epidemic, 2008: The MPOWER package. Geneva: WHO; 2008. Available from www.who.int/entity/tobacco/mpower/mpower_report_full_2008.pdf.
20. US Department of Justice (US DOJ). Civil Division US DOJ Litigation Against Tobacco Companies. Washington, D.C.: US Department of Justice; 2008. Available from www.usdoj.gov/civil/cases/tobacco2/index.htm