"LIGHT" AND "LOW-TAR" CIGARETTES

The essential facts

"Light" and "low-tar" cigarettes are perhaps the greatest fraud ever perpetrated on consumers in the West. For decades, the tobacco industry deceived governments, health professionals and, most importantly, smokers. All were led to believe that "light" cigarettes delivered less tar and nicotine and that therefore "lights" were less harmful than regular cigarettes. Decades after the emergence of these products, it is clear that "light" and "low-tar" cigarettes are *not* less harmful than regular cigarettes and have *not* lowered disease risk among smokers.

The history

- Studies linking smoking to lung cancer received widespread attention in the early 1950s and 1960s.^{1,2}
- Cigarette companies feared a massive loss in sales and promptly developed cigarettes that would ease the fears of consumers about the health effects of smoking.³
- "Light" cigarettes were designed and marketed to reassure consumers and encourage health-concerned smokers to switch to "light" cigarettes rather than quit.³
- This fraud has resulted in hundreds of billions of dollars in sales for the cigarette companies, and tragic results for smokers.

The fraud

- "Light" and "low-tar" cigarettes are designed to produce lower tar and nicotine levels when tested by a smoking machine.³
- One of the most common designs used by the tobacco industry is to increase ventilation holes in the filters to bring in air and dilute smoke. This dilution leads to artificially low measurements of tar and nicotine from machine testing.³
- Smokers of "light" and "low-tar" cigarettes typically puff longer, harder, and more frequently to obtain their desired dose of nicotine.³
- The smoke of one "light" or "low-tar" cigarette inhaled by a human may contain almost 2 to 3 times the amount of tar and nicotine compared to the smoke from the same cigarette taken in by the smoking machines.³
- Decades of internal tobacco industry documents demonstrate that the tobacco industry deliberately engineered "light" and "low-tar" cigarettes to produce low yields of tar and nicotine when tested by machines.⁴
- Worse, the companies knew the machine measurements do not resemble how humans smoke and thus drastically underestimate how much tar and nicotine smokers actually receive.⁴
- In 2008, the United States Federal Trade Commission, the entity responsible for developing machine testing of cigarettes, acknowledged that machine testing does not provide any meaningful measurements and revoked their machine testing method.⁵



Low-tar advertisement: "With all the talk about smoking I decided I'd either auit or smoke True. I smoke True."

TAR

The toxic material produced from burning a cigarette.

NICOTINE

The substance in tobacco to which smokers becomes addicted.



Ventilation holes in the filter paper around Marlboro Lights cigarettes.

"LIGHT" AND "LOW-TAR" CIGARETTES: Essential facts

Public health impact

- There is no evidence that smokers who choose low- tar and nicotine brands reduce their risk of cancer or heart disease.³
- Cigarettes labeled "light" and "low-tar" have not resulted in any meaningful decline in disease risk for smokers.³
 - In a cancer prevention study of nearly 1 million people in the U.S., the risk of lung cancer was no different among people who smoked mediumtar, low-tar or very low-tar cigarettes.⁶
 - In a 40-year study of smokers in the United Kingdom, the risk of lung cancer increased by nearly 20% among older smokers, despite widespread use of "low-tar" cigarettes.⁷
- A number of studies have linked "low-tar" cigarettes and smoker compensation when smoking "low-tar" cigarettes (smokers puff longer and harder and draw smoke from "low-tar" cigarettes more deeply into their lungs) to increases among smokers in cases of adenocarcinoma, a previously rare type of lung cancer that affects the very small airways of the lung.⁸⁻¹¹
 - From 1980 to 1997, rates of adenocarcinoma rose by more than 50% among men, and more than doubled among women in a number of European countries.¹²
 - Adenocarcinoma is now the most commonly diagnosed form of lung cancer in the United States¹³ and many Western European countries.^{12,14}

Tobacco companies target developing countries

- Tobacco companies aggressively market "light" cigarettes in developing countries
- Just like in the U.S. 30 years ago, consumers in developing countries are deceived into believing that "light" cigarettes are less harmful.
- Global sales of "light" and "ultra low-tar" cigarettes have increased dramatically, from 423 billion cigarettes sold in 1998 to nearly 756 billion sold in 2008.^{15,16}

Countries ban misleading terms

- More than 50 countries have already banned misleading terms such as "light" and "low-tar."
- In 2001, the European Union banned misleading terms stating that "the use on tobacco product packaging of certain texts, such as 'low-tar', 'light', 'ultra-light', 'mild', names, pictures and figurative or other signs, may mislead the consumer into the belief that such products are less harmful and give rise to changes in consumption." ¹⁷
- The World Health Organization's Framework Convention on Tobacco Control, which has been ratified by 168 countries, recognizes the impact of misleading descriptors in Article 11 and requires countries to ban any packaging and labeling that is false, misleading, or deceptive, such as "light," "low-tar" and "mild."

- 1. Royal College of Physicians of London. Smoking and health: A report of the Royal College of Physicians of London on smoking in relation to cancer of the lung and other diseases. London: Pitman Medical; 1962.
- 2. US Department of Health Education and Welfare. Smoking and health. Report of the advisory committee to the Surgeon General of the public health service. Washington, D.C.: Public Health Service 1964 Contract No.: PHS Publication No. 1103.
- 3. 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. p.199, 13, 39,166,13-35 Available from http://dccps.nci.nih.gov/tcrb/monographs/13/m13_5.pdf.
- **4.** Judge Kessler Final Opinion. United States v. Philip Morris., Civil Action Number 99-2496 (GK) (2006). Available from www.tobacco-freekids.org/reports/doj/FinalOpinion.pdf.
- Federal Trade Commission (FTC). Press Release: FTC rescinds guidance from 1966 on statements concerning tar and nicotine yields. FTC; 2008 [cited 2008 November 26]; Available from ftc.gov/opa/2008/11/cigarettetesting.shtm.
- **6.** Harris J, Thun M, Mondul A, Calle E. Cigarette tar yields in relation to mortality from lung cancer in the cancer prevention study II prospective cohort, 1982-8. British Medical Journal. 2004;328:1-8.
- 7. Thun MJ, Burns DM. Health impact of "reduced yield" cigarettes: a critical assessment of the epidemiological evidence. Tobacco Control. 2001;10 Suppl 1:i4-11.
- **8.** Stellman SD, Muscat JE, Thompson S, Hoffmann D, Wynder EL. Risk of squamous cell carcinoma and ademocarcinoma of the lung in relation to lifetime filter cigarette smoking. Cancer. 1997;80(3):382-8.
- **9.** Russo A, Crosignani P, Franceschi S, Berrino F. Changes in lung cancer histological types in varese cancer registry. European Journal of Cancer. 1997;33(10):1643-47.
- **10.** Osann K. Epidemiology of lung cancer. Current opinions in pulmonary medicine. 1998;4(4):198-204.
- 11. Wynder EL, Muscat JE. The changing epidemiology of smoking and lung cancer histology. Environmental health perspectives. 1995;103 Supplement 8:143-8.
- 12. Devesa S, Bray F, Vizcaino A, Parkin D. International lung cancer trends by histologic type: male, female differences diminishing and adenocarcinoma rates rising. International Journal of Cancer. 2005:117; 294-9.
- **13.** Travis WD, Travis LB, Devesa SS. Lung cancer [published erratum appears in Cancer 1995;75:2979]. Cancer 1995;75(1 Suppl):191-202.
- 14. Youlden DR, Cramb SM, Baade PD. The International Epidemiology of Lung Cancer: Geographical Distribution and Secular Trends. Journal of Thoracic Oncology. 2008;3(8):819-831.
- **15.** Euromonitor International[database on the Internet].Cigarettes: Global. Euromonitor International. c.2010.
- 16. Euromonitor defines "low-tar" as white cigarettes having machine tested tar ratings of 4-6mg and "ultra low-tar" as having less than 4mg.
- 17. Directive 2001/37/EC Of the European Parliament and of the Council of 5 June 2001. Official Journal for the European Communities. 2001 July 11.