
CANCER FACTS

National Cancer Institute • National Institutes of Health
Department of Health and Human Services

The Truth About “Light” Cigarettes: Questions and Answers

Key Points

- The lower tar and nicotine numbers on light cigarette packs and in ads are misleading (see Question 1).
- Light cigarettes trick the smoking machines so that they record artificially low tar and nicotine levels (see Question 2).
- Light cigarettes provide no benefit to smokers’ health (see Question 3).
- Resources are available for people who want to quit smoking (see Question 6).

Many smokers choose “low-tar,” “mild,” “light,” or “ultra-light” cigarettes because they think that these cigarettes may be less harmful to their health than “regular” or “full-flavor” cigarettes. Although smoke from light cigarettes may feel smoother and lighter on the throat and chest, light cigarettes are not healthier than regular cigarettes. The truth is that light cigarettes do not reduce the health risks of smoking. The only way to reduce a smoker’s risk, and the risk to others, is to stop smoking completely.

1. What about the lower tar and nicotine numbers on light and ultra-light cigarette packs and in ads for these products?

- These numbers come from smoking machines, which “smoke” every brand of cigarettes exactly the same way.
- These numbers do not really tell how much tar and nicotine a particular smoker may get because people do not smoke cigarettes the same way the machines do. And no two people smoke the same way.



2. How do light cigarettes trick the smoking machines?

- Tobacco companies designed light cigarettes with tiny pinholes on the filters. These “filter vents” dilute cigarette smoke with air when light cigarettes are “puffed” on by smoking machines, causing the machines to measure artificially low tar and nicotine levels.
- Many smokers do not know that their cigarette filters have vent holes. The filter vents are uncovered when cigarettes are smoked on smoking machines. However, filter vents are placed just millimeters from where smokers put their lips or fingers when smoking. As a result, many smokers block the vents—which actually turns the light cigarette into a regular cigarette.
- Some cigarette makers increased the length of the paper wrap covering the outside of the cigarette filter, which decreases the number of puffs that occur during the machine test. Although tobacco under the wrap is still available to the smoker, this tobacco is not burned during the machine test. The result is that the machine measures less tar and nicotine levels than is available to the smoker.
- Because smokers, unlike machines, crave nicotine, they may inhale more deeply; take larger, more rapid, or more frequent puffs; or smoke a few extra cigarettes each day to get enough nicotine to satisfy their craving. This is called “compensating,” and it means that smokers end up inhaling more tar, nicotine, and other harmful chemicals than the machine-based numbers suggest.

3. What is the scientific evidence about the health effects of light cigarettes?

- The Federal Government’s National Cancer Institute (NCI) has concluded that light cigarettes provide no benefit to smokers’ health.
- According to the NCI monograph *Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine*, people who switch to light cigarettes from regular cigarettes are likely to inhale the same amount of hazardous chemicals, and they remain at high risk for developing smoking-related cancers and other diseases.
- Researchers also found that the strategies used by the tobacco industry to advertise and promote light cigarettes are intended to reassure smokers, to discourage them from quitting, and to lead consumers to perceive filtered and light cigarettes as safer alternatives to regular cigarettes.
- There is also no evidence that switching to light or ultra-light cigarettes actually helps smokers quit.

4. Have the tobacco companies conducted research on the amount of tar and nicotine people actually inhale while smoking light cigarettes?

- The tobacco industry's own documents show that companies are aware that smokers of light cigarettes compensate by taking bigger puffs.
- Industry documents also show that the companies are aware of the difference between machine-measured yields of tar and nicotine and what the smoker actually inhales.

5. What is the bottom line for smokers who want to protect their health?

- There is no such thing as a safe cigarette. The only proven way to reduce the risk of smoking-related disease is to quit smoking completely.
- Smokers who quit live longer than those who continue to smoke. In addition, the earlier smokers quit, the greater the health benefit. Research has shown that people who quit before age 30 eliminate almost all of their risk of developing a tobacco-related disease. Even smokers who quit at age 50 reduce their risk of dying from a tobacco-related disease.
- Quitting also decreases the risk of lung cancer, heart attacks, stroke, and chronic lung disease.

6. What resources are available on smoking cessation?

For more information about smoking and advice on quitting, contact:

Organization: Centers for Disease Control and Prevention
Telephone: 1-800-CDC-1311 (1-800-232-1311)
Web site: <http://www.cdc.gov/tobacco>

Organization: National Cancer Institute
Telephone: Smoking Quitline 1-877-44U-QUIT (1-877-448-7848)
Web site: <http://www.smokefree.gov>

This fact sheet is a joint effort of the Office on Smoking and Health at the Centers for Disease Control and Prevention and the National Cancer Institute.

References:

Doll R, Peto R, Boreham J, et al. Mortality in relation to smoking: 50 years' observations on male British doctors. *BMJ* 2004; 328 (74550): 1519.

National Cancer Institute. *Smoking and Tobacco Control Monograph 13: Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine*. Bethesda, MD: NCI, 2001.

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Related Resources

Publications (available at <http://www.cancer.gov/publications>)

- Cancer Facts 3.14, *Cigarette Smoking and Cancer: Questions and Answers*
- Cancer Facts 3.65, *Questions and Answers About Cigar Smoking and Cancer*
- Cancer Facts 3.9, *Environmental Tobacco Smoke*
- Cancer Facts 8.13, *Questions and Answers About Smoking Cessation*

National Cancer Institute (NCI) Resources

Cancer Information Service (toll-free)

Telephone: 1-800-4-CANCER (1-800-422-6237)

TTY: 1-800-332-8615

Online

NCI's Web site: <http://www.cancer.gov>

LiveHelp, NCI's live online assistance:

<https://cissecure.nci.nih.gov/livehelp/welcome.asp>

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