

Women and Smoking: Questions and Answers

Key Points

- Smoking increases women's risk of cancer and other health problems (see Question 1).
- Lung cancer is the leading cause of cancer death in U.S. women (see Question 2).
- Quitting smoking offers immediate and long-term health benefits (see Questions 3 and 4).
- The National Institutes of Health supports research related to women, tobacco, and cancer (see Question 5).
- Resources are available to help women quit smoking (see Question 6).

1. Are women who smoke at increased risk of health problems?

Yes. Women and men who smoke are at increased risk of developing cancer, heart disease, and lung disease and of dying prematurely (1, 2).

A pregnant smoker is at higher risk of having her baby born too early and with an abnormally low weight. A woman who smokes during or after pregnancy increases her infant's risk of death from Sudden Infant Death Syndrome (SIDS) (1, 2).

In addition, some studies suggest that women who smoke are more likely to experience irregular or painful periods. Smokers are more likely than nonsmokers to go through menopause at a younger age. Women who smoke after menopause have lower bone density and a higher risk of hip fracture than do women who don't smoke (1).

2. Does smoking increase cancer risk in women?

Yes. Smoking causes cancers of the lung, esophagus, larynx (voice box), mouth, throat, kidney, bladder, pancreas, stomach, and cervix, as well as acute myeloid leukemia (2). In 1987, lung cancer surpassed breast cancer to become the leading cause of cancer death in



U.S. women. Unlike early breast cancer and many other types of cancer, lung cancer is rarely curable (3). Most deaths from lung cancer among U.S. women are caused by smoking (1).

3. What are the immediate benefits of quitting smoking for women?

The immediate health benefits of quitting smoking are substantial. Within a few hours, the level of carbon monoxide in the blood begins to decline. (Carbon monoxide, a colorless, odorless gas found in cigarette smoke, reduces the blood's ability to carry oxygen.) Heart rate and blood pressure, which were abnormally high while smoking, begin to return to normal. Within a few weeks, women who quit smoking have improved circulation, don't produce as much phlegm, and don't cough or wheeze as often. Women can also expect significant improvements in lung function within several months of quitting (4).

Also, women who quit smoking reduce the risk of infertility, and pregnant women who quit early in their pregnancy reduce the risk of the baby being born too early and with an abnormally low weight (1, 5).

4. What are the long-term benefits of quitting smoking for women?

Quitting smoking dramatically reduces the risk of developing an illness caused by smoking (2, 6):

- The risk of death from heart disease is substantially reduced within 1 or 2 years after quitting, and eventually becomes the same as that of nonsmokers.
- The risk of death from lung cancer and other lung diseases declines steadily, beginning about 5 years after quitting.
- Quitting smoking as early in life as possible is likely to reduce the risk of fractures that would be caused by smoking in old age.

Regardless of age, women can substantially reduce the risk of disease, including cancer, by quitting smoking. For women who have already developed cancer, quitting smoking helps the body to heal and to respond to cancer treatment, and quitting reduces the risk of developing a second cancer.

5. Is the National Institutes of Health (NIH) supporting research on women, tobacco, and cancer?

Yes. The NIH is funding research that aims to prevent and reduce tobacco use among women, and to increase the survival rates of women suffering from cancers caused by smoking. The National Cancer Institute (NCI), a component of the NIH and the Nation's lead agency for cancer research, formed the Women, Tobacco, and Cancer Working Group to stimulate scientific research and suggest approaches to prevent tobacco-related cancers among women in the United States and around the world. The Working Group, a public/private partnership that met in 2003, discussed the issues and made

recommendations for progress in this area. The findings of the Working Group are summarized in the NCI report *Women, Tobacco, and Cancer: An Agenda for the 21st Century*, which can be found at <http://women.cancer.gov/reports/wtobacco.shtml> on the Internet.

The health effects of smoking in women is an area of concern for many other NIH agencies, including the National Institute on Drug Abuse, the National Institute of Dental and Craniofacial Research, the National Institute of Child Health and Human Development, the John E. Fogarty International Center, and the National Center for Complementary and Alternative Medicine. Some current and recent NIH-funded research projects in this area include the following:

- A survey of tobacco use among pregnant women in several developing countries.
- A study of the use of nicotine replacement products among pregnant smokers.
- A program to help women remain smoke free after giving birth.
- An examination of the effectiveness of the nicotine patch in male and female smokers.

In addition, the NCI is funding studies to investigate the effects of smoking and quitting on various cancers, including those of the lung, breast, uterus, and cervix. Studies are also investigating genetic/molecular differences between women and men and their effect on cancer risk.

6. What resources are available to help women quit smoking?

The NCI fact sheet *Quitting Smoking: Why To Quit and How To Get Help*, at <http://www.cancer.gov/cancertopics/factsheet/Tobacco/cessation> on the Internet, provides a list of Government and nonprofit organizations that have resources to help people quit smoking.

General Resources

Government resources that provide information about quitting for all smokers include the following:

- The Tobacco Control Research Branch of the NCI established the **Smokefree.gov** Web site in collaboration with the Centers for Disease Control and Prevention and the American Cancer Society to help people quit smoking. The Web site provides an online guide, *Clearing the Air: Quit Smoking Today*, for smokers interested in quitting. The guide covers thinking about quitting, preparing to quit, quitting, and staying quit.

Clearing the Air: Quit Smoking Today is also available as a print publication. Other publications available from the Web site include the following:

- *Clear Horizons* for smokers over age 50.

- *Forever Free*TM for smokers who have recently quit.
- *Guía para Dejar de Fumar* for Spanish-speaking smokers.
- *Pathways to Freedom* for African American smokers.

Internet Web site: <http://www.smokefree.gov/resources.html>

- The **National Network of Tobacco Cessation Quitlines**, an initiative of the U.S. Department of Health and Human Services, routes callers to a state-run quitline where they can receive help with quitting smoking, publications, and referrals to other resources. Information about this service can be found on the Smokefree.gov Web site.

Telephone: 1-800-784-8669 (1-800-QUITNOW)

- The **National Cancer Institute's (NCI) Smoking Quitline** offers a wide range of services, including individualized counseling, printed information, referrals to other sources, and recorded messages. Smoking cessation counselors are available to answer smoking-related questions in English or Spanish, Monday through Friday, 9:00 a.m. to 4:30 p.m., local time. Smoking cessation counselors are also available through *LiveHelp* (an online instant messaging service) at <http://www.cancer.gov/help> on the Internet. *LiveHelp* is available Monday through Friday, 9:00 a.m. to 11:00 p.m., Eastern time.

Telephone: 1-877-448-7848 (1-877-44U-QUIT)

Internet Web site: <http://www.cancer.gov>

Resources for Women

Several organizations provide information specifically for women, including the following:

- The **Office on Women's Health** of the **U.S. Department of Health and Human Services** has established a special section on its Web site called "A Breath of Fresh Air! Independence from Smoking." This section includes information about the health effects of smoking and provides resources to help women quit smoking.

Address: Room 712E
200 Independence Avenue, SW.
Washington, DC 20201

Telephone: 1-800-994-9662

Internet Web site: <http://www.4woman.gov/quitsmoking>

- The **Centers for Disease Control and Prevention (CDC)** and the **Agency for Toxic Substances and Disease Registry (ATSDR)** established the **Office of Women's Health (OWH)** to promote and improve the health, safety, and quality of life of

women. A section of the OWH Web site contains information about smoking and tobacco for women.

Address: CDC/ATSDR Office of Women's Health
Centers for Disease Control and Prevention
Mail Stop E-89
1600 Clifton Road
Atlanta, GA 30333
Telephone: 404-498-2300
E-mail: owh@cdc.gov
Internet Web site: <http://www.cdc.gov/women/az/smoking.htm>

- **The National Partnership for Smoke-Free Families**, a program supported by The Robert Wood Johnson Foundation, is working to discover the best ways to help pregnant smokers quit, and to spread the word about effective, evidence-based treatments.

Address: National Dissemination Office
Cecil G. Sheps Center for Health Services Research
CB #7590
725 Martin Luther King, Jr. Boulevard
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-7590
Telephone: 919-843-7663
E-mail: feedback@helppregnant smokersquit.org
Internet Web site: <http://www.helppregnant smokersquit.org>

- The **American Legacy Foundation** is a national, independent public health foundation that was established in March 1999 as a result of the tobacco settlement. The foundation collaborates with organizations interested in decreasing tobacco consumption among all ages and populations nationwide.

Address: American Legacy Foundation
Sixth Floor
2030 M Street, NW.
Washington, DC 20036
Telephone: 202-454-5555
1-800-784-8669 (1-800-QUIT-NOW) (pregnant smokers)
E-mail: info@americanlegacy.org
Internet Web site: <http://www.americanlegacy.org>

Selected References

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3. Ries LAG, Harkins D, Krapcho M, et al. *SEER Cancer Statistics Review, 1975–2003*. Bethesda, MD: National Cancer Institute, 2006.
4. U.S. Department of Health and Human Services. *The Health Benefits of Smoking Cessation*. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1990.
5. Cnattingius S. The epidemiology of smoking during pregnancy: Smoking prevalence, maternal characteristics, and pregnancy outcomes. *Nicotine & Tobacco Research* 2004; 6(Supplement 2):S125–S140.
6. National Cancer Institute (1997). *Smoking and Tobacco Control Monograph 8: Changes in Cigarette-Related Disease Risks and Their Implications for Prevention and Control*. Bethesda, MD. Retrieved July 30, 2007, from: <http://cancercontrol.cancer.gov/tcrb/monographs/8/index.html>

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Related NCI materials and Web pages:

- National Cancer Institute Fact Sheet 10.17, *The Truth About “Light” Cigarettes: Questions and Answers* (<http://www.cancer.gov/cancertopics/factsheet/Tobacco/light-cigarettes>)
- National Cancer Institute Fact Sheet 10.18, *Secondhand Smoke: Questions and Answers* (<http://www.cancer.gov/cancertopics/factsheet/Tobacco/ETS>)
- National Cancer Institute Fact Sheet 10.19, *Quitting Smoking: Why To Quit and How To Get Help* (<http://www.cancer.gov/cancertopics/factsheet/Tobacco/cessation>)
- *Clearing the Air: Quit Smoking Today* (http://www.smokefree.gov/pubs/clearing_the_air.pdf)
- *Forever Free™* (<http://www.smokefree.gov/pdf.html>)
- *Pathways to Freedom* (http://www.smokefree.gov/docs/pathways_final.pdf)
- *Women, Tobacco, and Cancer: An Agenda for the 21st Century* (<http://women.cancer.gov/reports/wtobacco.shtml>)
- Smoking and Cancer Home Page (<http://www.cancer.gov/cancertopics/smoking>)

For more help, contact:

NCI's Cancer Information Service

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

TTY (toll-free): 1-800-332-8615

LiveHelp[®] online chat: <https://cissecure.nci.nih.gov/livehelp/welcome.asp>

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