

---

# CANCER FACTS

---

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

---

## Questions and Answers About Smoking Cessation

### 1. How important is it to stop smoking?

It is very important. Tobacco use remains the single most preventable cause of death in the United States. Cigarette smoking accounts for nearly one-third of all cancer deaths in this country each year.

Smoking is the most common risk factor for the development of lung cancer, which is the leading cause of cancer death. It is also associated with many other types of cancer, including cancers of the esophagus, larynx, kidney, pancreas, and cervix. Smoking also increases the risk of other health problems, such as chronic lung disease and heart disease. Smoking during pregnancy can have adverse effects on the unborn child, such as premature delivery and low birth weight.

### 2. What are the immediate benefits of stopping smoking?

The health benefits of smoking cessation (quitting) are immediate and substantial. Almost immediately, a person's circulation begins to improve and 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.) A person's pulse rate and blood pressure, which may be abnormally high while smoking, begin to return to normal. Within a few days of quitting, a person's sense of taste and smell return, and breathing becomes increasingly easier.

### 3. What are the long-term benefits of stopping smoking?

People who quit smoking live longer than those who continue to smoke. After 10 to 15 years, a previous tobacco user's risk of premature death approaches that of a person who has never smoked. About 10 years after quitting, an ex-smoker's risk of dying from lung cancer is 30 percent to 50 percent less than the risk for those who continue to smoke. Women who stop smoking before becoming pregnant or who quit in the first 3 months of



pregnancy can reverse the risk of low birth weight for the baby and reduce other pregnancy-associated risks. Quitting also reduces the risk of other smoking-related diseases, including heart disease and chronic lung disease.

There are also many benefits to smoking cessation for people who are sick or who have already developed cancer. Smoking cessation reduces the risk for developing infections, such as pneumonia, which often causes death in patients with other existing diseases.

**4. Does cancer risk change after quitting smoking?**

Quitting smoking reduces the risk for developing cancer, and this benefit increases the longer a person remains “smoke free.” People who quit smoking reduce their risk of developing and dying from lung cancer. They also reduce their risk of other types of cancer (see question 1). The risk of premature death and the chance of developing cancer due to cigarettes depends on the number of years of smoking, the number of cigarettes smoked per day, the age at which smoking began, and the presence or absence of illness at the time of quitting. For people who have already developed cancer, quitting smoking reduces the risk of developing another primary cancer.

**5. At what age is smoking cessation the most beneficial?**

Smoking cessation benefits men and women at any age. Some older adults may not perceive the benefits of quitting smoking; however, smokers who quit before age 50 have half the risk of dying in the next 16 years compared with people who continue to smoke. By age 64, their overall chance of dying is similar to that of people the same age who have never smoked. Older adults who quit smoking also have a reduced risk of dying from coronary heart disease and lung cancer. Additional, immediate benefits (such as improved circulation, and increased energy and breathing capacity) are other good reasons for older adults to become smoke free.

**6. What are some of the difficulties associated with quitting smoking?**

Quitting smoking may cause short-term after-effects, especially for those who have smoked a large number of cigarettes for a long period of time. People who quit smoking are likely to feel anxious, irritable, hungry, more tired, and have difficulty sleeping. They may also have difficulty concentrating. Many tobacco users gain weight when they quit, but usually less than 10 pounds. These changes do subside. People who kick the habit have the opportunity for a healthier future.

**7. How can health care providers help their patients to stop smoking?**

Doctors and dentists can be good sources of information about the health risks of smoking and about quitting. They can tell their patients about the proper use and potential side effects of nicotine replacement therapy (see question 8), and help them find local smoking cessation programs.

Doctors and dentists can also play an important role by *asking* patients about smoking at every office visit; *advising* patients to stop; *assisting* patients by setting a quit date, providing self-help materials, and suggesting nicotine replacement therapies (when appropriate); and *arranging* for followup visits.

## 8. What is nicotine replacement therapy?

Nicotine is the drug in cigarettes and other forms of tobacco that causes addiction. Nicotine replacement products deliver small, steady doses of nicotine into the body, which helps to relieve the withdrawal symptoms often felt by people trying to quit smoking. These products, which are available in four forms (patches, gum, nasal spray, and inhaler), appear to be equally effective. There is evidence that combining the nicotine patch with nicotine gum or nicotine nasal spray increases long-term quit rates compared with using a single type of nicotine replacement therapy. Nicotine gum, in combination with nicotine patch therapy, may also reduce withdrawal symptoms better than either medication alone. Researchers recommend combining nicotine replacement therapy with advice or counseling from a doctor, dentist, pharmacist, or other health provider.

- The **nicotine patch**, which is available over the counter (without a prescription), supplies a steady amount of nicotine to the body through the skin. The nicotine patch is sold in varying strengths as an 8-week smoking cessation treatment. Nicotine doses are gradually lowered as the treatment progresses. The nicotine patch may not be a good choice for people with skin problems or allergies to adhesive tape.
- **Nicotine gum** is available over the counter in 2- and 4-mg strengths. Chewing nicotine gum releases nicotine into the bloodstream through the lining of the mouth. Nicotine gum might not be appropriate for people with temporomandibular joint disease (TMJ) or for those with dentures or other dental work such as bridges.
- **Nicotine nasal spray** was approved by the U.S. Food and Drug Administration (FDA) in 1996 for use by prescription only. The spray comes in a pump bottle containing nicotine that tobacco users can inhale when they have an urge to smoke. This product is not recommended for people with nasal or sinus conditions, allergies, or asthma, nor is it recommended for young tobacco users.
- A **nicotine inhaler**, also available only by prescription, was approved by the FDA in 1997. This device delivers a vaporized form of nicotine to the mouth through a mouthpiece attached to a plastic cartridge. Even though it is called an inhaler, the device does not deliver nicotine to the lungs the way a cigarette does. Most of the nicotine only travels to the mouth and throat, where it is absorbed through the mucous membranes. Common side effects include throat and mouth irritation and coughing. Anyone with a bronchial problem such as asthma should use it with caution.

**9. Are there smoking cessation aids that do not contain nicotine?**

Bupropion, a prescription antidepressant marketed as Zyban®, was approved by the FDA in 1997 to treat nicotine addiction. This drug can help to reduce nicotine withdrawal symptoms and the urge to smoke. Some common side effects of bupropion are dry mouth, difficulty sleeping, dizziness, and skin rash. People should not use this drug if they have a seizure condition such as epilepsy or an eating disorder such as anorexia nervosa or bulimia, or if they are taking other medicines that contain bupropion hydrochloride.

**10. What if efforts to quit result in relapse?**

Many smokers find it difficult to quit smoking, and it may take two or three attempts before they are finally able to quit. Although relapse rates are most common in the first few weeks or months after quitting, people who stop smoking for 3 months are often able to remain cigarette-free for the rest of their lives.

**11. What agencies and organizations are available to help people stop smoking?**

A number of organizations provide information and materials about where to find help to stop smoking. State and local health agencies often have information about community smoking cessation programs. The local or county government section in the phone book (blue pages) has current phone numbers for health agencies. Information to help people quit smoking is also available through community hospitals, the yellow pages (under "drug abuse and addiction"), public libraries, health maintenance organizations, health fairs, bookstores, and community helplines.

Several national organizations provide information about how to quit smoking:

**Government:**

The **Agency for Healthcare Research and Quality (AHRQ)** issues smoking cessation guidelines and other materials for physicians, health care professionals, and the general public. Printed copies are available by contacting:

Address:	AHRQ Publications Clearinghouse Post Office Box 8547 Silver Spring, MD 20907-8547
Telephone:	1-800-358-9295 410-381-3150
TTY:	1-888-586-6340 (for deaf and hard of hearing callers)
Internet Web site:	<a href="http://www.ahrq.gov/">http://www.ahrq.gov/</a>
E-mail:	<a href="mailto:info@ahrq.gov">info@ahrq.gov</a>

The **National Institutes of Health (NIH)** supports research to help prevent, detect, diagnose, and treat diseases and disabilities. Several of NIH's Institutes provide information on the harmful effects of smoking.

- The **National Cancer Institute (NCI)** conducts research on smoking cessation and promotes programs to reduce the rate of illness and death associated with smoking. Several NCI publications on smoking-related topics are available from the NCI-supported Cancer Information Service (CIS).

Telephone: 1-800-4-CANCER (1-800-422-6237)  
TTY: 1-800-332-8615 (for deaf or hard of hearing callers)

- The **National Institute on Drug Abuse (NIDA)** supports research on drug abuse and addiction, including the effects of cigarettes and other nicotine products. The NIDA Infobox service offers drug abuse and addiction information in English and Spanish. Users can receive fact sheets by fax or mail, or listen to recorded messages. NIDA Infobox is available at:

Telephone: 1-888-NIH-NIDA (1-888-644-6432)  
TTY: 1-888-TTY-NIDA (1-888-889-6432) (for deaf or hard of hearing callers)  
Internet Web site: <http://www.nida.nih.gov/>

NIDA publications can be ordered from the National Clearinghouse for Alcohol and Drug Information (NCADI) at:

Address: Center for Substance Abuse Prevention  
National Clearinghouse for Alcohol and Drug Information  
Post Office Box 2345  
Rockville, MD 20847-2345  
Telephone: 1-800-SAY-NO-TO (1-800-729-6686)  
301-468-2600  
TTY: 1-800-487-4889 (for deaf or hard of hearing callers)  
Fax: 301-468-6433  
Internet Web site: <http://www.health.org/>  
E-mail: [info@health.org](mailto:info@health.org)

The **Office on Smoking and Health** of the **Centers for Disease Control and Prevention** distributes pamphlets, posters, scientific reports, and public service announcements about smoking, and maintains a bibliographic database of smoking and health-related materials. For more information, contact:

Address: Office on Smoking and Health  
National Center for Chronic Disease Prevention and Health  
Promotion  
Centers for Disease Control and Prevention  
Mail Stop K-50  
4770 Buford Highway, NE.  
Atlanta, GA 30341-3724

Telephone: 1-800-CDC-1311 (1-800-232-1311)  
770-488-5705

Fax: 1-800-CDC-1311 (1-800-232-1311)

FAX Information  
Service: 770-332-2552

Internet Web site: <http://www.cdc.gov/tobacco>

E-mail: [tobaccoinfo@cdc.gov](mailto:tobaccoinfo@cdc.gov)

The **Office of the Surgeon General** has information about techniques being used to treat tobacco use and dependence. The Office of the Surgeon General's Web site has press releases, documents, and other information on tobacco use and cessation.

Address: The Surgeon General  
U.S. Department of Health and Human Services  
200 Independence Avenue, SW.  
Washington, DC 20201

Internet Web site: <http://www.surgeongeneral.gov/tobacco>

### **Nonprofit:**

The **American Cancer Society (ACS)** offers materials on smoking cessation and other smoking and tobacco-related topics. The ACS also sponsors a smoking cessation clinic called FreshStart, which is available in most of the United States.

For more information or the phone number for a local ACS office, contact ACS's National Home Office at:

Address: 1599 Clifton Road, NE.  
Atlanta, GA 30329-4251

Telephone: 1-800-ACS-2345 (1-800-227-2345)

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

The **American Heart Association (AHA)** has information on local and community-related intervention programs in schools, workplaces, and health care sites. It also offers brochures on smoking cessation and the relationship between smoking and heart disease. For more information or the phone number for a local AHA chapter, contact AHA's national office at:

Address: National Center  
7272 Greenville Avenue  
Dallas, TX 75231  
Telephone: 1-800-AHA-USA1 (1-800-242-8721)  
Internet Web site: <http://www.americanheart.org/>

The **American Lung Association (ALA)**, an organization dedicated to fighting smoking-related diseases, provides information about local smoking cessation programs as well as its Freedom From Smoking clinics for individuals and organizations. For more information or the phone number for a local ALA chapter, contact ALA's national headquarters at:

Address: 1740 Broadway  
New York, NY 10019-4274  
Telephone: 1-800-LUNG-USA (1-800-586-4872)  
212-315-8700  
Internet Web site: <http://www.lungusa.org/>  
E-mail: [info@lungusa.org](mailto:info@lungusa.org)

###

### **Sources of National Cancer Institute Information**

#### **Cancer Information Service**

Toll-free: 1-800-4-CANCER (1-800-422-6237)  
TTY (for deaf and hard of hearing callers): 1-800-332-8615

#### **NCI Online**

##### ***Internet***

Use <http://cancer.gov> to reach the NCI's Web site.

##### ***LiveHelp***

Cancer Information Specialists offer online assistance through the *LiveHelp* link on the NCI's Web site.

**This fact sheet was reviewed on 12/12/00**