

Several kinds of medication and many types of interpersonal help are available to you when you seek to quit smoking. However, accomplishing this goal requires sustained, consistent effort on your part.

Smoking and Tobacco Addiction

What Is Tobacco Addiction?

Tobacco addiction is a chemical dependence on the nicotine found in all forms of tobacco, including cigarettes, cigars, pipes, and chewing tobacco. In the United States, most people who become addicted to nicotine do so by smoking cigarettes. Nicotine addiction has historically been one of the hardest addictions to break: its brain mechanisms are comparable to those of addiction to heroin and cocaine.

Smoking and the use of tobacco pose an immense public-health problem. Although cigarette smoking is the most preventable cause of death in the United States, it causes one out of every five deaths every year. Ninety percent of lung cancer in men is directly related to tobacco use, particularly cigarette smoking, and 80 percent of lung cancer in women is caused by cigarettes. Most of the smokers in the United States are between the ages of 25 and 44. If they continue to smoke in large numbers, we must expect great increases in levels of chronic disease. This outcome would cause great suffering and places an immense strain on the public-health system. Smoking harms not only those who smoke but also those who live with smokers and inhale second-hand smoke. About 60 percent of American children between the ages of four and 11 are exposed to secondhand smoke at home.

Smoking and tobacco use pose public-health problems not only in the numbers of people affected but also in the scope of the harm. As the nicotine and other substances

in cigarette smoke accumulate in the body, they affect not only the brain but also the lungs, heart, cardiovascular system, and other vital organ systems. When you inhale cigarette smoke, you take in over 250 chemical substances that harm the body. Examples include the following trace metals, preservatives, and other compounds:

- ❖ Formaldehyde, one of the chief toxins in cigarette smoke, is a known cause of cancer. (Formaldehyde is normally used to kill bacteria and preserve human and animal remains.)
- ❖ Carolina is a gas that inhibits DNA repair and can destroy the lining in the lungs. For these reasons, caroling is believed to contribute to lung cancer.
- ❖ Arsenic is a preservative. Taken into the body, it is a poison and can cause heart disease and cancer.
- ❖ Benzene is used to manufacture other chemicals. It can cause cancer, particularly leukemia, in humans.
- ❖ Cadmium is a metal used to make batteries. Cadmium can interfere with the repair of damaged DNA, as well as damaging the kidneys and the lining of the arteries.
- ❖ Chromium VI, normally used to make alloy metals, paint and dyes, is known to contribute to lung cancer when inhaled.
- ❖ Polonium-210 is a radioactive element that smokers inhaled directly into the airway. Some studies show that a person who smokes a pack and a half of cigarettes a day over the course of a year receives the same harmful levels of radiation as from 300 X-rays during that year.
- ❖ 1, 3-Butadine is a chemical normally used to manufacture rubber. Inhaled, it may increase your risk of cancer in the stomach, blood, and lymphatic system.

In addition, smoking exposes you to carbon monoxide (CO), a harmful gas that decreases the amount of oxygen that is carried in the red blood cells. CO increases the amount of cholesterol that is deposited into the inner lining of the arteries, causing them to harden and putting you at increased risk of heart attacks.

What Causes Smoking and Tobacco Addiction?

The direct cause of smoking and of harmful tobacco use is a chemical dependence on nicotine. A chemical dependence results when a non-essential substance changes the brain. Nicotine changes the brain's production of dopamine, a neurotransmitter that is active in reward-based learning.

Indirect or contributing causes of smoking include such factors which may make you unusually susceptible to nicotine addiction:

- ❖ Depression
- ❖ Genetic susceptibilities
- ❖ Socioeconomic stressors such as poverty
- ❖ Family dysfunction
- ❖ Trauma, such as prior experience of physical or sexual abuse

Who Is at Risk of Smoking and Tobacco Use?

Some risks of tobacco and nicotine addiction appear in the list of contributing causes in the previous section. In addition, the following qualities have been frequently seen in smokers and therefore can warn you of increased risk:

- ❖ Exposure to advertising by the tobacco industry, particularly in the form of “trailers” or film announcements that show smoking scenes
- ❖ A history of smoking as an adolescent
- ❖ Parents who smoke or who smoked when you were growing up

You are at risk of heightened nicotine-withdrawal symptoms if you have smoked for a long time or have been a heavy smoker.

What Are the Signs and Symptoms of Tobacco Addiction?

You may have an addiction to smoke, tobacco, or nicotine if, when you cannot get it, you crave it and have one or more of the following symptoms:

- ❖ Fatigue
- ❖ Headache

- ❖ Dry mouth
- ❖ Hunger
- ❖ Insomnia
- ❖ Cough
- ❖ Irritability
- ❖ Constipation
- ❖ Anxiety

What Are Common Treatments?

Several kinds of medication and many types of interpersonal help are available to you when you seek to quit smoking. However, accomplishing this goal requires sustained, consistent effort on your part. That effort can include the following steps:

- ❖ Set a target date for quitting
- ❖ Have a friend quit smoking with you
- ❖ List and focus on the reasons that you chose to quit smoking
- ❖ Identify your “smoking cues” and rearrange them. For example, if you smoke with your coffee, try drinking tea while you are trying to quit smoking.
- ❖ Confine the locations where you smoke (smoke only outdoors, for example)
- ❖ Postpone lighting up when you want a cigarette
- ❖ Buy one pack of cigarettes at a time and consider switching to a brand that you do not like
- ❖ Keep your cigarettes in a less accessible place
- ❖ Think of other healthy activities

Besides these steps, medications are available to help you break your addictions to nicotine and tobacco. The following prescription medications facilitate quitting and are non-addictive. These medications do not have nicotine as active ingredient, and they work entirely in a different way than nicotine replacement therapy:

- ❖ Chantix®: used to treat smoking addiction
- ❖ Zyban®: helps to reduce your desire to smoke (one of the most prescribed antidepressant medicines)

- ❖ Smok-OX®: a natural herbal medicine that is quite effective in helping smokers to quit.
- ❖ Zero Nicotin®: a patch designed to help you give up smoking in a safe and natural way.

Also available to help you break nicotine addiction is Nicotine Replacement Therapy (NRT). This treatment entails delivering controlled amounts of nicotine to the bloodstream. The following delivery mechanisms are available:



- ❖ Nicotine patch
- ❖ Inhaler
- ❖ Nasal spray
- ❖ Gum
- ❖ Sublingual tablet
- ❖ Lozenge

Can Smoking and Tobacco Use Be Prevented?

The following healthy practices can offset some of the physical, emotional, and social stressors that contribute to nicotine cravings. In addition, if you have quit smoking, these practices can help to protect you from a relapse:

- ❖ Engage in exercise such as walking or cycling
- ❖ Enlist the help of family and friends in avoiding temptation (form a network to exchange support)
- ❖ Maintain a positive attitude (focus on the health benefits of smoking cessation)
- ❖ Eat regular and healthy meals
- ❖ Do not become easily discouraged
- ❖ Keep busy

Should I Call My Doctor?

If you have decided to stop smoking, call your doctor. There are many forms of smoking-cessation assistance available, some of which are available only via a doctor's

prescription. In addition, call your doctor promptly if you have quit smoking and are having severe withdrawal systems.

For More Information

For more information, refer to the following medical resources:

http://www.helpguide.org/mental/quit_smoking_cessation.htm

<http://www.cancer.gov/cancertopics/pdq/prevention/control-of-tobacco-use/patient/>

<http://www.nlm.nih.gov/medlineplus/smoking.html>

The content in this document is neither intended nor recommended as a substitute for seeking professional medical advice, diagnosis or treatment. It is recommended that you seek the advice of your physician or other qualified healthcare professional regarding any medical questions related to the topics contained within this document, your health or conditions.