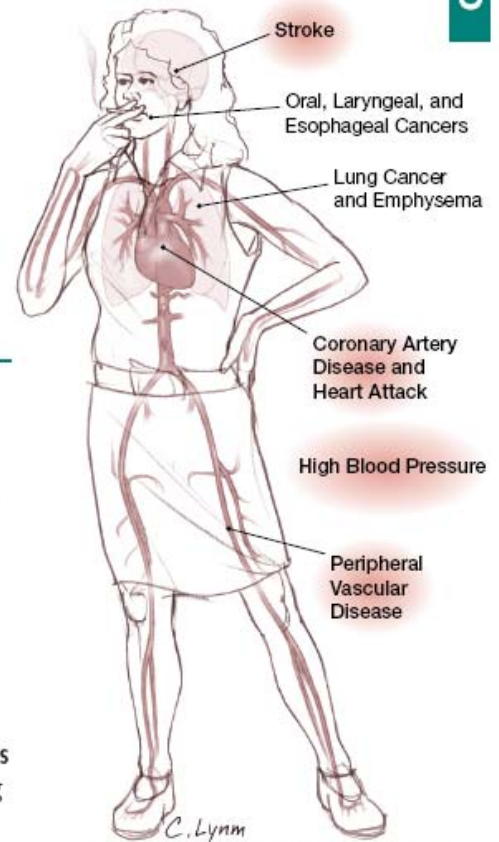


Smoking and the Heart

Most people know that smoking is bad for your lungs and can cause cancer. However, fewer may be aware of the effects of smoking on the heart and the circulatory system—the arteries and veins that carry the blood throughout the body. The July 2, 2003, issue of *JAMA* includes an article about the beneficial effects of quitting smoking on the heart and circulatory system.



SMOKING, BLOOD VESSELS, AND DEATH

Cigarette smoking is the main preventable cause of premature death in the developed world. It accounts for more than 440,000 deaths every year in the United States.

When you smoke, toxic chemicals from tobacco enter your bloodstream. Some of these chemicals send signals to your heart to beat harder and faster. Smoking also causes blood vessels to **constrict** (become more narrow), forcing blood to travel through a smaller space. Both of these effects cause temporary high blood pressure. Long-term smokers may eventually develop high blood pressure all of the time because of their smoking. Smoking also increases bad cholesterol (low-density lipoprotein) and lowers good cholesterol (high-density lipoprotein) in your body, and increases the likelihood of **plaques** (fatty buildups) collecting on the inside of blood vessels, a condition called **atherosclerosis** (hardening of the arteries). Smoking also increases the risk of **thrombosis** (blood clots blocking a blood vessel). Over time, these effects increase the risk of having a **myocardial infarction** (heart attack).

Smoking can also increase the risk of having a **stroke** (sudden blockage of blood circulation in the brain). A stroke is usually caused by a blood clot getting lodged in the blood vessels supplying the brain with blood and oxygen. When this happens, brain cells begin to die. This can cause permanent brain damage or even death. In smokers, because blood vessels are narrower, blood clots have a higher chance of causing strokes or heart attacks. Women who smoke and use **oral contraceptives** (birth control pills) are at a much higher risk of developing heart disease or having a stroke than women taking oral contraceptives who do not smoke.

FOR MORE INFORMATION

- American Heart Association
800/242-8721
www.americanheart.org
- American Lung Association
212/315-8700
www.lungusa.org

INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA's Web site at www.jama.com. A Patient Page on lung cancer was published in the January 15, 2003, issue, and one on quitting smoking was published in the July 24/31, 2002, issue.

Sources: American Heart Association, American Lung Association, National Heart, Lung, and Blood Institute, National Cancer Institute.

BENEFITS OF QUITTING SMOKING

- Reduces risk for heart disease by almost half and reduces chances of having heart-related problems if you already have heart disease
- Reduces risk of having a blood clot
- Reduces chances of developing several different kinds of cancer
- Reduces risk of developing **emphysema**, a serious lung disease that impairs breathing
- Improves stamina for exercising and participating in sports
- Improves senses of taste and smell

Quitting smoking can be a difficult process but is well worth the effort. A number of prescription and nonprescription aids to help you quit are available. If you are still smoking, talk with your doctor about it!

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