

# SMOKING AND CARDIOVASCULAR DISEASE



This fact sheet is for public health officials and others who are interested in how smoking affects the heart and circulatory system. Smoking is very dangerous to cardiovascular health.

## WHAT YOU NEED TO KNOW ABOUT SMOKING AND CARDIOVASCULAR DISEASE

Smoking is a major cause of cardiovascular disease (CVD) and causes approximately one of every four deaths from CVD, according to the 2014 Surgeon General's Report on smoking and health. CVD is the single largest cause of death in the United States, killing more than 800,000 people a year. More than 16 million Americans have heart disease. Almost 8 million have had a heart attack and 7 million have had a stroke.

Even people who smoke fewer than five cigarettes a day may show signs of early CVD. The risk of CVD increases with the number of cigarettes smoked per day, and when smoking continues for many years. Smoking cigarettes with lower levels of tar or nicotine does not reduce the risk for cardiovascular disease.

Exposure to secondhand smoke causes heart disease in nonsmokers. More than 33,000 nonsmokers die every year in the United States from coronary heart disease caused by exposure to secondhand smoke. Exposure to secondhand smoke can also cause heart attacks and strokes in nonsmokers.

## HOW SMOKING HARMS THE CARDIOVASCULAR SYSTEM

Chemicals in cigarette smoke cause the cells that line blood vessels to become swollen and inflamed. This can narrow the blood vessels and can lead to many cardiovascular conditions.

- **Atherosclerosis**, in which arteries narrow and become less flexible, occurs when fat, cholesterol, and other substances in the blood form plaque that builds up in the walls of arteries. The opening inside the

arteries narrows as plaque builds up, and blood can no longer flow properly to various parts of the body. Smoking increases the formation of plaque in blood vessels.

- **Coronary Heart Disease** occurs when arteries that carry blood to the heart muscle are narrowed by plaque or blocked by clots. Chemicals in cigarette smoke cause the blood to thicken and form clots inside veins and arteries. Blockage from a clot can lead to a heart attack and sudden death.
- **Stroke** is a loss of brain function caused when blood flow within the brain is interrupted. Strokes can cause permanent brain damage and death. Smoking increases the risk for strokes. Deaths from strokes are more likely among smokers than among former smokers or people who have never smoked.
- **Peripheral Arterial Disease (PAD)** and peripheral vascular disease occur when blood vessels become narrower and the flow of blood to arms, legs, hands and feet is reduced. Cells and tissue are deprived of needed oxygen when blood flow is reduced. In extreme cases, an infected limb must be removed. Smoking is the most common preventable cause of PAD.
- **Abdominal Aortic Aneurysm** is a bulge or weakened area that occurs in the portion of the aorta that is in the abdomen. The aorta is the main artery that carries oxygen-rich blood throughout the body. Smoking is a known cause of early damage to the abdominal aorta, which can lead to an aneurysm. A ruptured abdominal aortic aneurysm is life-threatening; almost all deaths from abdominal aortic aneurysms are caused by smoking. Women smokers have a higher risk of dying from an aortic aneurysm than men who smoke. Autopsies have shown early narrowing of the abdominal aorta in young adults who smoked as adolescents.



**Plaque narrows vessels, so less blood can flow through. When a clot forms on one of these narrow places in an artery around the heart, the heart muscle becomes starved for oxygen. This can cause a heart attack.**

## QUITTING SMOKING CUTS CVD RISKS

Even though we don't know exactly which smokers will develop CVD from smoking, the best thing all smokers can do for their hearts is to quit. Smokers who quit start to improve their heart health and reduce their risk for CVD immediately. Within a year, the risk of heart attack drops dramatically, and even people who have already had a heart attack can cut their risk of having another if they quit smoking. Within five years of quitting, smokers lower their risk of stroke to about that of a person who has never smoked.

For more information on smoking and heart health, see the 2014 Surgeon General's Report at [surgeongeneral.gov](http://surgeongeneral.gov) (publications and reports). For free help to quit smoking, call 1-800-QUIT-NOW or go to [smokefree.gov](http://smokefree.gov) or [cdc.gov/tips](http://cdc.gov/tips).

Most people find a combination of resources works best. Many smokers do not quit on their first attempt. Many need several tries to successfully quit. But the benefits are well worth it. Keep trying.



## SAVE YOUR HEART AVOID THE SMOKE

Smoking damages the heart and blood vessels very quickly, but the damage is repaired quickly for most smokers who stop smoking. Even long-time smokers can see rapid health improvements when they quit. Within a year, heart attack risk drops dramatically. Within five years, most smokers cut their risk of stroke to nearly that of a nonsmoker. Even a few cigarettes now and then damage the heart, so the only proven strategy to keep your heart safe from the effects of smoking is to quit.

## RESOURCES FOR QUITTING

- Call 1-800-QUIT-NOW.
- [www.smokefree.gov](http://www.smokefree.gov)
- [www.cdc.gov/tips](http://www.cdc.gov/tips)



Centers for Disease  
Control and Prevention  
Office on Smoking  
and Health