

WORKING TO PREVENT HEART DISEASE, HIGH BLOOD PRESSURE, STROKES AND PROMOTE HEART HEALTH



The CDC is working to prevent heart disease and stroke and promote heart health
More than 868,000 Americans die of heart disease, stroke, or other cardiovascular diseases every year—that's one-third of all US deaths. These diseases also take an economic toll, costing \$214 billion a year to our health care system and causing \$138 billion in lost productivity from premature death alone.

The CDC supports programs that help millions of Americans control their high blood pressure and reduce other risk factors. These efforts have helped lower death rates from heart disease and stroke, which are the first and fifth leading causes of death in the United States.

The Nation's Risk Factors and the CDC's Response

The leading risk factors for heart disease and stroke are high blood pressure, high low-density lipoprotein (LDL) cholesterol, unhealthy diet, diabetes, obesity, physical inactivity, smoking and exposure to second-hand smoke..



Fast Facts

- Heart disease, stroke, and other cardiovascular diseases cause 1 in 3 deaths in the United States
- These diseases cost the US health care system \$214 billion a year and cause \$138 billion in lost productivity from premature death alone
- High blood pressure, high LDL (bad) cholesterol, diabetes, and smoking are key risk factors for heart disease and stroke
- Other risk factors are overweight and obesity, prediabetes, unhealthy diet, and not getting enough physical activity
- The CDC works to prevent these risk factors and reduce health disparities, which are differences in health across different geographic, racial, ethnic, and socioeconomic groups



Risk Factors and the CDC's Response

- **High Blood Pressure and High Cholesterol**
- **Diabetes**
- **Smoking and Secondhand Smoke Exposure**
- **Obesity, Unhealthy Diet, and Physical Inactivity**

RISK FACTOR

High Blood Pressure and High Cholesterol

High blood pressure is a major risk factor for heart disease and stroke because it damages the lining of the arteries, making them more susceptible to the buildup of plaque, which narrows the arteries leading to the heart and brain. About 108 million US adults (1 in 3) have high blood pressure. Only about half (48%) of these people have their high blood pressure under control. About 7 in 10 people who have a first heart attack and 8 in 10 people who have a first stroke have high blood pressure.

Eating too much sodium can lead to high blood pressure. Americans aged 2 years or older consume an average of about 3,400 mg of sodium each day, well over the 2,300 mg recommended by the **Dietary Guidelines for Americans**. More than 70% of the sodium Americans consume is added

outside the home (before purchase), not added as salt at the table or during home cooking.

High LDL cholesterol can also double a person's risk of heart disease. That's because excess cholesterol can build up in the walls of arteries and limit the blood flow to their heart, brain, kidneys, other organs, and their legs. Although nearly 86 million US adults could benefit from taking medicine to manage their high LDL cholesterol, only about half (55%) are doing so.

People can improve their cholesterol levels and blood pressure by eating a healthy diet that is low in sodium, by being physically active, by taking their medications as suggested and maintaining a healthy weight.



The CDC's Response

The CDC's **Division for Heart Disease and Stroke Prevention** (DHDSPP) works with partners across public health, government, health care, and private sectors to improve prevention, detection, and control of heart disease and stroke risk factors, with a focus on high cholesterol and blood pressure. The DHDSPP also works to improve recognition of the signs and symptoms of a heart attack or stroke and the quality of care following these events.

Through its scientific and programmatic investments, the DHDSPP advances strategies such as using electronic health records to identify patients at risk and treat them appropriately and caring for patients with teams of clinicians, pharmacists, community health workers, and others outside of the doctor's office. The division also promotes strategies that link patients to community programs and resources that help them take their medicines consistently, manage their risk factors, and make healthy lifestyle changes, such as quitting smoking or losing weight.

The following major programs support the division's goals:

- The DHDSPP funds heart disease and stroke prevention and management activities in all 50 states, the District of Columbia, 12 tribes, 23 tribal-serving organizations, 5 large cities or counties, and 2 groups of city and county health departments. **These programs** work to reduce risk factors for heart disease and stroke and eliminate health gaps through community and health system interventions
- The **WISEWOMAN** funds twenty-one states and 3 tribal organizations to reduce heart disease and stroke risk factors for low-income women aged 40 to 64 who have little or no health insurance
- The **Paul Coverdell National Acute Stroke Program** funds 9 states to use coordinated systems of care to improve the quality of care for patients who have a stroke
- A **Million Hearts** provides national leadership to promote changes in communities and health care systems across the country to prevent 1 million strokes and heart attacks over 5 years
- The **Sodium Reduction in Communities Program** funds 8 sites across the country to help schools, hospitals, and work sites offer low-sodium options in the foods they serve and sell

RISK FACTOR

Diabetes

Adults with diabetes are 2 to 3 times as likely to die of heart disease or have a stroke as people who do not have diabetes. Over time, high blood sugar from diabetes can damage blood vessels in the heart, and it can block blood vessels leading to the brain, causing a stroke. Nearly 3 in 4

people with diabetes have high blood pressure. Diabetes also raises LDL cholesterol.

The CDC's Response

The CDC's **Division of Diabetes Translation** is at the leading edge of the nation's efforts to end the devastation of diabetes. The division works with federal, state, and community organizations to prevent type 2 diabetes and improve the health of all people with diabetes.

The CDC-led **National Diabetes Prevention Program** delivers an evidence-based lifestyle change program to help adults with prediabetes prevent or delay type 2 diabetes. In 2016, the CDC and the American Diabetes Association, the American Medical Association, and the Ad Council launched the first national prediabetes awareness campaign to encourage people to find out their risk by taking a one minute test **DolHavePrediabetes.org**.

The CDC also works to increase access to **diabetes self-management education and support (DSMES)** services to help people manage their diabetes. DSMES reduces the cost of diabetes on the US health care system.

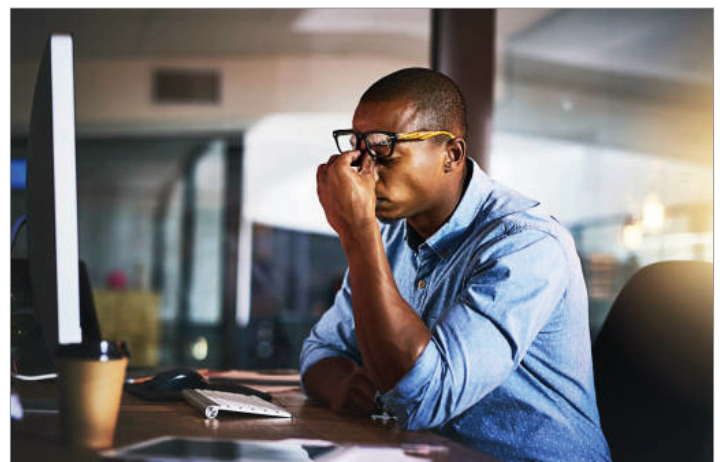
These activities support CDC's overall efforts to reduce death rates from heart disease and stroke by preventing and controlling risk factors.

RISK FACTOR

Smoking and Secondhand Smoke Exposure

Smoking is a major cause of heart disease and stroke and causes 1 in every 4 deaths from these conditions. Smoking can damage the body several ways by:

- Raising triglycerides (a type of fat in the blood) and lowering high-density lipoprotein (HDL) cholesterol, also called "good" cholesterol
- Making blood sticky and more likely to clot, which can block blood flow to the heart and brain
- Damaging cells that line the blood vessels



- Increasing the buildup of plaque (fat, cholesterol, calcium, and other substances) in blood vessels
- Causing thickening and narrowing of blood vessels

About 34 million US adults smoke cigarettes, and every day, about 1,600 young people under age 18 try their first cigarette.

The CDC's Response



The CDC's **Office on Smoking and Health** is at the forefront of the nation's efforts to reduce deaths and prevent chronic diseases—including heart disease and stroke—that result from smoking. The CDC and its partners promote efforts to prevent young people from starting to smoke, create smoke free work sites and public spaces, help smokers quit, and reduce health gaps for groups with higher rates of chronic diseases caused by smoking.

The CDC's **Tips From Former Smokers**[®] campaign, the first federally funded tobacco education campaign, focuses on motivating US adults who smoke to try to quit. Tips features real people—not actors—who are living with serious health conditions caused by smoking and secondhand smoke exposure. It connects people who smoke with resources to help them quit, including 1-800-QUIT-NOW, which directs people to free services from their state quitlines.

RISK FACTOR

Obesity, Unhealthy Diet, and Physical Inactivity

People who are overweight or have obesity, compared to those at a normal weight, are at increased risk of heart disease and stroke and their risk factors, including high blood pressure, high LDL cholesterol, low HDL cholesterol, high triglycerides, and type 2 diabetes. In the United States, 72% of adults are overweight or have obesity.

Having a healthy diet can reduce a person's chances of getting heart disease. A healthy diet emphasizes fruits and vegetables, whole grains, and lean proteins and limits saturated and trans fat, added sugars, and sodium. Not getting enough physical activity can also lead to heart disease—even for people who have no other risk factors. It can also increase the chance of other risk factors, including obesity, high blood pressure, high cholesterol, and type 2 diabetes. Only 1 in 4 US adults and 1 in 5 high school students gets enough physical activity.

The CDC's Response

The CDC's **Division of Nutrition, Physical Activity, and Obesity** develops and shares evidence-based approaches that help make healthy living easier for everyone, which can help people reduce their risk of heart disease and stroke. For example, the division works with hospitals to support breast-feeding moms, child care centers to promote healthy eating standards, and workplaces to change policies so employees have more healthy food choices.



To increase physical activity opportunities, the division partners with states and communities to promote improvements in community design—such as sidewalks and parks—that make physical activity safer and more convenient for people of all ages and abilities.

In the United States, Cardiovascular Diseases cause:



1 IN 3 DEATHS or more than **859,000 people** each year



\$214 BILLION in health care system costs



\$138 BILLION in lost productivity on the job from premature death