

# Heart Attacks

## UNDERSTAND the problem

Heart attacks occur most often as a result of a condition called coronary artery disease (CAD). In CAD, a fatty material called plaque builds up over many years on the inside walls of the coronary arteries (the arteries that supply blood and oxygen to your heart). Eventually, an area of plaque can rupture, causing a blood clot to form on the surface of the plaque. If the clot becomes large enough, it can mostly or completely block the flow of oxygen-rich blood to the part of the heart muscle fed by the artery.

During a heart attack, if the blockage in the coronary artery isn't treated quickly, the heart muscle will begin to die and be replaced by scar tissue. This heart damage may not be obvious, or it may cause severe or long-lasting problems.

Severe problems linked to heart attack can include heart failure and life-threatening arrhythmias (irregular heartbeats). Heart failure is a condition in which the heart can't pump enough blood throughout the body. Ventricular fibrillation is a serious arrhythmia that can cause death if not treated quickly.

Each year, about 1.1 million people in the United States have heart attacks, and almost half of them die. CAD, which often results in a heart attack, is the leading killer of both men and women in the United States.

Many more people could recover from heart attacks if they got help faster. Of the people who die from heart attacks, about half die within an hour of the first symptoms and before they reach the hospital.

## WHO is at risk

Certain risk factors make it more likely that you will develop CAD and have a heart attack. Some risk factors for heart attack can be controlled, while others can't.

Major risk factors for heart attack that you can control include:

- Smoking
- High blood pressure
- High blood cholesterol
- Overweight and obesity
- Physical inactivity
- Diabetes (high blood sugar)

Risk factors that you can't change include:

- Age. Risk increases for men older than 45 years and for women older than 55 years (or after menopause).
- Family history of early CAD. Your risk increases if your father or a brother was diagnosed with CAD before 55 years of age, or if your mother or a sister was diagnosed with CAD before 65 years of age.

## WHAT are the signs and symptoms

Not all heart attacks begin with a sudden, crushing pain that is often shown on TV or in the movies. The warning signs and symptoms of a heart attack aren't the same for everyone. Many heart attacks start slowly as mild pain or discomfort. Some people don't have symptoms at all (this is called a silent heart attack).

### Chest Pain or Discomfort

The most common symptom of heart attack is chest pain or discomfort. Most heart attacks involve discomfort in the center of the chest that lasts for more than a few minutes or goes away and comes back. The discomfort can feel like uncomfortable pressure, squeezing, fullness, or pain. It can be mild or severe. Heart attack pain can sometimes feel like indigestion or heartburn.

The symptoms of angina can be similar to the symptoms of a heart attack. Angina is pain in the chest that occurs in people with coronary artery disease, usually when they're active. Angina pain usually lasts for only a few minutes and goes away with rest. Angina that doesn't go away or that changes from its usual pattern (occurs more frequently or occurs at rest) can be a sign of the beginning of a heart attack and should be checked by a doctor right away.

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This handout is provided to you by CME Resource and your healthcare provider. For more information, please consult your physician.

## Other Common Signs and Symptoms

Other common signs and symptoms that a person can have during a heart attack include:

- Upper body discomfort in one or both arms, the back, neck, jaw, or stomach
- Shortness of breath may often occur with or before chest discomfort
- Nausea (feeling sick to your stomach), vomiting, lightheadedness or fainting, or breaking out in a cold sweat

Not everyone having a heart attack experiences the typical symptoms. If you've already had a heart attack, your symptoms may not be the same for another one. The more signs and symptoms you have, the more likely it is that you're having a heart attack.

## HOW to respond

### Get Help Quickly

Acting fast at the first sign of heart attack symptoms can save your life and limit damage to your heart. Treatment is most effective when started within 1 hour of the beginning of symptoms.

Know the warning signs of a heart attack so you can act fast to get treatment for yourself or someone else. The sooner you get emergency help, the less damage there will be to your heart.

Call 9–1–1 for help within 5 minutes if you think you may be having a heart attack or if your chest pain doesn't go away as it usually does when you take prescribed medicine.

Don't drive yourself or anyone else to the hospital. Call an ambulance so that medical personnel can begin life-saving treatment on the way to the emergency room.

Lowering your risk factors for CAD can help you prevent a heart attack. Even if you already have CAD, you can still take steps to lower your risk of heart attack.

Reducing the risk of heart attack usually means making healthy lifestyle choices. You also may need treatment for medical conditions that raise your risk.

## Healthy Lifestyle Choices

Healthy lifestyle choices to help prevent heart attack include:

- Following a low-fat diet rich in fruits and vegetables. Pay careful attention to the amounts and types of fat in your diet. Lower your salt intake. These changes can help lower high blood pressure and high blood cholesterol.
- Losing weight if you're overweight or obese.
- Quitting smoking.
- Doing physical activity to improve heart fitness. Ask your doctor how much and what kinds of physical activity are safe for you.

## Treat Related Conditions

In addition to making lifestyle changes, you can help prevent heart attacks by treating conditions you have that make a heart attack more likely, including:

- High blood cholesterol. You may need medicine to lower your cholesterol if diet and exercise aren't enough.
- High blood pressure. You may need medicine to keep your blood pressure under control.
- Diabetes (high blood sugar). If you have diabetes, control your blood sugar levels through diet and physical activity (as your doctor recommends). If needed, take medicine as prescribed.

## Have an Emergency Action Plan

Make sure that you have an emergency action plan in case you or someone else in your family has a heart attack. This is especially important if you're at high risk or have already had a heart attack.

Talk with your doctor about the signs and symptoms of heart attack, when you should call 9–1–1, and steps you can take while waiting for medical help to arrive.

This information is reprinted from the Diseases and Conditions Index provided by the National Heart, Lung, and Blood Institute, which is a part of the National Institutes of Health and the U.S. Department of Health and Human Services.