

CORONARY HEART DISEASE: CAUSES, SYMPTOMS & TREATMENT | CHD GROUP

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What is coronary heart disease?

Coronary heart disease (CHD) is the most common type of heart disease. It is also called coronary artery disease (CAD). CHD is plaque build-up in your arteries. It's known as hardening of the arteries, too. Arteries carry blood and oxygen to your heart. Heart disease is a leading cause of death in the United States for men and women. It remains the single largest cause of death in India and also in countries across South Asia.

Symptoms of coronary heart disease

CHD doesn't always have symptoms. This is true in the early stages of the disease. Symptoms can vary in men and women.

Primary symptoms include:

• Chest pain or discomfort. This is known as angina. This happens when your heart lacks blood or oxygen. Angina can be stable or unstable. Activity or stress causes stable angina. Unstable angina is more dangerous. It can happen without warning. Symptoms of unstable angina include chest pain, tightness, or heaviness. People describe it as a squeezing feeling. The pain can spread to your arms, neck, stomach, back, or jaw.



• **Shortness of breath.** Also, you might feel tired or weak. Talk to your doctor about what to look for to help prevent and detect CHD.

Call 108 right away if you have those or any of the following abrupt symptoms. You might be having a heart attack or heart failure.

- Ongoing angina or chest pain that changes.
- Dizziness.
- Nausea or vomiting.
- Sweating (with fever or chills).
- Swelling in your legs, ankles, feet, stomach, or the veins in your neck.
- Numbness, particularly in your arms or chest.

What causes coronary heart disease?

Coronary heart disease develops over time. It occurs as your arteries become blocked from plaque (fatty substances). This makes it hard for blood and oxygen to reach your heart. It puts stress on your heart, blood vessels, and body. If the plaque bursts, it can form a blood clot. A blood clot can produce a heart attack. If your brain lacks oxygen, you can have a stroke.

How is coronary heart disease diagnosed?

Your doctor can determine your risks for CHD. He or she may check your cholesterol levels and blood pressure. Your doctor also will want to know about your lifestyle and family history.

Currently, the American Academy of Family Physicians (AAFP) recommends against electrocardiogram (ECG) screening for adults without symptoms and who are at low risk for CHD. The AAFP does not have enough data to recommend ECG screening for adults who don't have symptoms, but are at medium or high risk for CHD.

If you have symptoms, though, see your doctor. He or she will perform certain tests to diagnose CHD:

- Electrocardiogram (ECG or EKG) measures the rhythm, speed, and evenness of your heartbeat.
- Echocardiogram (ECG) produces an image of your heart using ultrasound.



- Chest X-ray produces an image of your heart and chest area using radiation.
- Exercise stress test checks your heart rate during activity.
- **Coronary angiogram** checks your arteries for flow and blockage. This test uses injected dye to take X-rays and monitor blood flow.
- Cardiac catheterization checks your arteries for flow and blockage. A catheter (thin tube) goes into your arteries from your groin, arm, or neck.
- Cardiac computed tomography (CT) scan produces an image of your heart and arteries. This test uses radiation and contrast dye.

Can coronary heart disease be prevented or avoided?

There are risk factors that increase your chance of getting CHD. Some of them you can prevent, including:

- Obesity or being overweight. Your doctor can help you calculate your body mass index (BMI). You should balance the amount of calories you take in and put out.
- Adults should get at least **150 minutes of moderate exercise each week**. This includes fast walking, bicycling, or swimming. Increase this number if you need to lose weight. Children and teens should get at least 60 minutes of exercise every day.
- **Poor diet.** This plays a role in your body weight, cholesterol levels, and overall health. Learn how many calories you should consume in a day. Then, make it a point to eat foods high in nutrition. This includes, fruits, vegetables, whole grains, low-fat dairy, poultry, and fish. Limit your intake of fats, sodium (salt), sugar, and red meat.
- <u>Smoking and alcohol</u>. These unhealthy habits affect your oxygen level. They can damage your blood vessels and tighten your airways. Women should have no more than one drink per day. Men should have no more than two drinks per day. Talk to your doctor if you need help quitting alcohol or smoking.

Other CHD risk factors that you can manage or treat include:

- **High cholesterol.** Cholesterol is one substance that creates plaque. There are two types of cholesterol. Low-density lipoprotein (LDL) is bad. High-density lipoprotein is good. You should have low LDL and high HDL levels. You can help control these levels with medicine and a healthy lifestyle.
- **High blood pressure.** For most people, your blood pressure is high when it is at or above 130/80. Age and certain health conditions can affect normal blood pressure levels. You can help control your blood pressure with medicine. A healthy lifestyle and reduced stress also help.



• Certain health conditions, such as diabetes or preeclampsia.

Major risk factors that you can't avoid include:

- Plaque continues to build as you get older. The risk of CHD increases for men starting at age 45. It increases for women starting at age 55.
- **Gender and race.** Men are at higher risk than women. African Americans can be more likely to get CHD than other races.
- · Family history.

Ask your doctor for specific recommendations. They vary by person.

Coronary heart disease treatment

Treatment depends on age, health, degree of CHD, and other conditions. Mild or early cases of CHD may just need monitoring. Less invasive treatment options include:

- medicine to relieve symptoms and reduce risk factors
- eating healthy
- losing weight
- more activity
- stopping smoking
- reducing stress

Surgical treatments include:

- Coronary artery bypass: Your surgeon will redirect the path to your heart. It will go around the blocked or narrowed areas. The new path will allow blood and oxygen to get through.
- Percutaneous coronary intervention (PCI): Your surgeon will insert and inflate a tiny balloon to fix your vessels. It will push back the plaque to allow blood and oxygen to pass through. He or she also might replace a part of your vessel. They can use tissue from another part of your body or a stent. This is a small tube-shaped medical device. It provides support to keep your arteries open.

There are approaches for heart surgery. Minimally invasive involves small cuts in your chest, between your ribs. Open-heart requires a large cut in your chest to open your rib cage. Surgery can



be done off-pump. This is where your heart beats on its own. Or, your surgeon can use a heart-lung bypass machine to pump for your heart.

Another type is cardiac rehabilitation. Your doctor can prescribe this instead of or in addition to surgery. Cardiac rehab focuses on education and exercise. It includes counseling to help you handle stress or emotions.

Living with coronary heart disease

Finding coronary heart disease early can prevent it from getting worse. If left untreated, you could have a heart attack or get arrhythmias (irregular heartbeats). CHD can lead to death. Proper diagnosis and treatment allows you to correct it with lifestyle changes and manage it with medicine or surgery. Surgery has various recovery timeframes.

Talk to your doctor about your specific outcomes and goals. You likely will need ongoing doctor visits and tests. CHD does increase your risk for a heart attack. Make sure you know the warning signs and when to call 108.

Questions to ask your doctor

- How severe is my CHD?
- What can I do to prevent my disease from getting worse?
- How do I know if I'm having a heart attack or stroke?
- If I've had one heart attack, am I at risk for a second one?

This is issued in public interest by <u>CHD Group</u> for patients, their relatives who may benefit from this information. Share it widely with your friends and colleagues today.