



# Heart disease

Heart disease is a common term for coronary artery disease (CAD). It is the number one cause of death in the U.S. in both men and women. With heart disease, arteries that supply blood to the heart become hardened and narrowed.

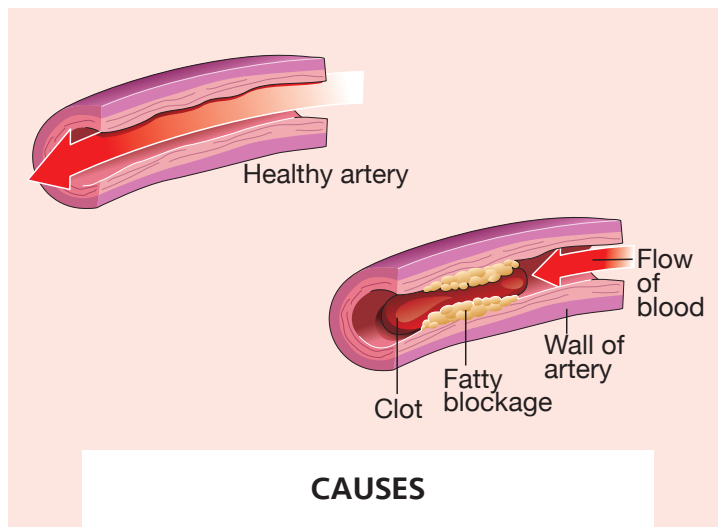


## HEART DISEASE CAN LEAD TO THESE PROBLEMS:

- **Angina.** The heart muscle does not get as much blood and oxygen as it needs for a given level of work. A heart attack damages the heart muscle. Angina does not. It is a warning sign that a heart attack could occur, though.
- **Heart attack.**
- **Heart failure (HF).** Also known as congestive heart failure, the heart “fails” to supply the body with enough blood and oxygen for its needs. This develops slowly. It becomes chronic.

## SIGNS & SYMPTOMS

- Symptoms of angina are pain, discomfort, or a squeezing pressure in the chest. Aching in a tooth, jaw, or neck can also occur. Symptoms usually go away with rest and/or nitroglycerin. Angina attacks may occur with anger, excitement, or exertion, such as walking up a hill.
- Symptoms of heart failure are: Shortness of breath; feeling very tired or weak; swelling in the lower legs, ankles, and feet; nausea; trouble concentrating; dry cough or one with pink, frothy mucus; rapid weight gain; and a fast heart beat.



## CAUSES

Heart disease is caused by atherosclerosis. This is the buildup of plaque in the inner walls of the arteries. The plaque is made up of blood platelets, cholesterol, fibrous tissue, and sometimes calcium. The plaque narrows the arteries. This slows or blocks the flow of blood to the heart.

Some factors increase the risk of heart disease. The more risk factors; the higher the risk.

### Risk Factors That Can't Be Changed

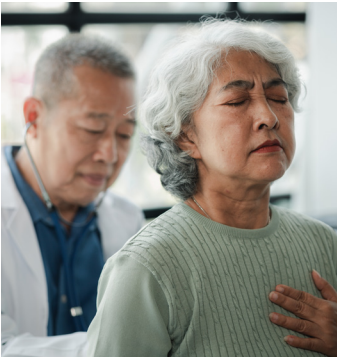
- A past heart attack or stroke
- Family history of heart disease. A father or brother had heart disease before age 55. A mother or sister had heart disease before age 65.
- Being a male 45 years or older
- Being a female 55 years or older

### Risk Factors That Can Be Controlled

- Smoking and secondhand smoke. Too much alcohol.
- High blood pressure
- High total and/or LDL-blood cholesterol levels
- Being overweight or obese. Waist measurement > 40 inches for men; > 35 inches for women
- Having diabetes
- Poor quality sleep

### Other Risk Factors

- C-reactive protein (CRP) in the blood. Levels of CRP rise when there is inflammation in the body.
- Elevated blood homocysteine levels
- Infections, such as chlamydia pneumoniae
- Elevated blood lipoprotein
- Elevated blood triglycerides



TREATMENT

The goals of treatment are to relieve symptoms, control or reduce risk factors, stop or slow further damage to the arteries, and prevent and treat cardiac events. Treatment includes:

- Self-Care / Prevention measures
- Medications
- Procedures to open blocked or narrowed arteries or bypass them
- Cardiac rehabilitation (rehab)



TRIAGE QUESTIONS

Is any heart attack warning sign present?

NO  
↓

YES ➡ GET EMERGENCY MEDICAL CARE



Do angina symptoms not respond to prescribed medicine or fail to go away in 10 to 15 minutes?

NO  
↓

YES ➡ GET EMERGENCY MEDICAL CARE



Does severe shortness of breath (with or without wheezing) occur in a person with heart failure?

NO  
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YES ➡ GET EMERGENCY MEDICAL CARE



Does a person with heart failure have any of these problems?

- Unexplained weight gain of 3 to 5 pounds
- Mild shortness of breath and a cough with pink or frothy mucus
- The flu, COVID, Respiratory Syncytial Virus (RSV), cold, or other respiratory condition
- Heart failure symptoms get worse

NO  
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YES ➡ SEE DOCTOR



Do any of these problems occur?

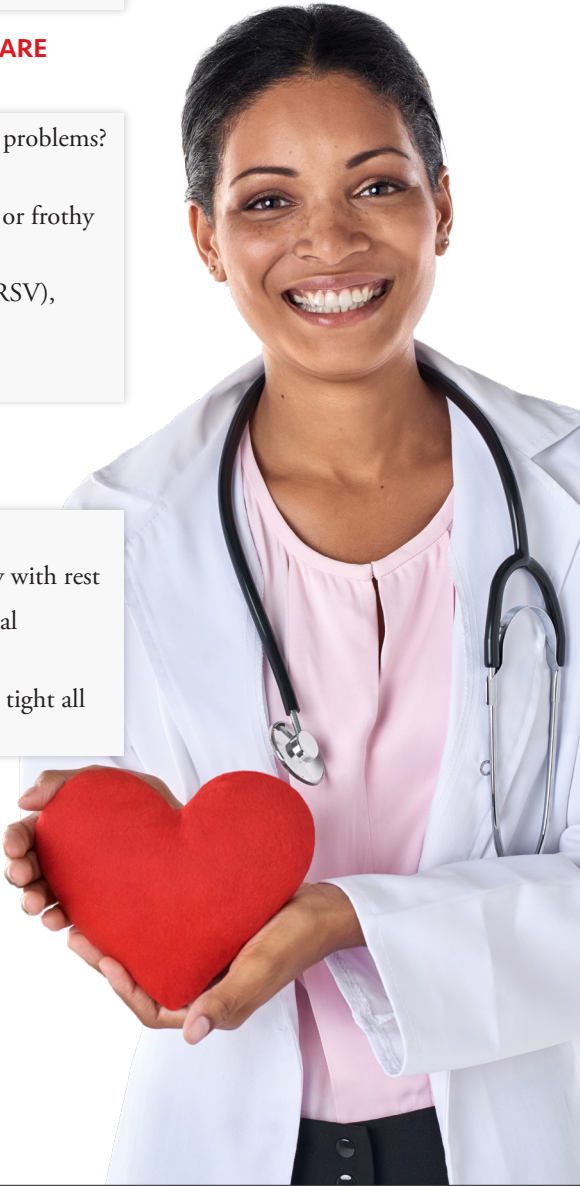
- Chest pain with exertion and the pain goes away with rest
- Shortness of breath or fatigue when doing normal activities or when lying down
- Swelling in the legs or ankles. Shoes can feel too tight all of a sudden.

NO  
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YES ➡ SEE DOCTOR



USE SELF-CARE





## SELF-CARE / PREVENTION

- Have regular medical checkups. Get your blood pressure checked at each office visit or as advised by your doctor. Get your blood cholesterol tested regularly, as advised by your doctor.
- Don't smoke. If you smoke, quit.
- Get to or stay at a healthy weight.
- Take all medications as prescribed.
- See your doctor if you have any signs and symptoms of diabetes.
- Ask your doctor about the benefits and harms of taking low-dose aspirin daily to help prevent cardiovascular disease.
- Eat plenty of vegetables and fruits. Include whole grains and healthy fats. Limit saturated fats and added sugars. Limit sodium to 1,500 to 2,400 milligrams per day. Follow the DASH Eating Plan.
- Get regular exercise. Follow your doctor's advice.
- Manage stress. Practice relaxation techniques.
- Get 7 to 9 hours of quality sleep a night.
- If you drink alcohol, do so in moderation. Too much alcohol can raise the risk for high blood pressure, heart disease, stroke, and other health problems. Moderate drinking may be linked to a lower risk of coronary heart disease in some persons. Moderation means no more than 2 drinks a day for men; 1 drink a day for women and persons age 65 and older. One drink = 5 oz. of wine; 12 oz. of beer; or 1-1/2 oz. of 80-proof liquor.
- Ask your doctor how much, if any, alcohol you should drink.
- Get your doctor's advice about taking vitamins, minerals, and herbal products.



### FOR MORE INFORMATION:

The American Heart Association  
800-AHA-USA1 (242-8721)  
**heart.org**

National Heart, Lung, and  
Blood Institute  
**nhlbi.nih.gov**