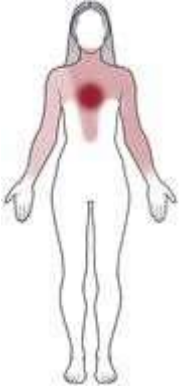


# Angina



Angina is discomfort in the chest, neck, arm, jaw, or back. The discomfort is caused by a lack of blood in the middle layer of the heart wall (*myocardium*).

There are four types of angina:

- Stable angina. This is triggered by vigorous activity or exercise. It goes away when you rest or take medicines that treat angina. This is diagnosed if you have had the symptom for more than 2 months.
- Unstable angina. This is a warning sign and can lead to a heart attack. **This is a medical emergency.** Symptoms come at rest and last a long time.
- Microvascular angina. This affects the small coronary arteries. Symptoms include chest pain, feeling tired, and being short of breath. The symptoms can last a long time or short time.
- Prinzmetal or variant angina. This is caused by a spasm of the arteries that go to your heart.

## What are the causes?

This condition is usually caused by atherosclerosis. This is the buildup of fat and cholesterol (*plaque*) in your arteries. The plaque may narrow or block the artery.

Other causes of angina include:

- Sudden spasms of the muscles of the arteries in the heart.
- Small artery disease (*microvascular dysfunction*).
- Problems with any of your heart valves.
- A tear in an artery in your heart (*coronary artery dissection*).
- Weakness of the heart muscle (*cardiomyopathy*).

## What increases the risk?

You are more likely to develop this condition if you have:

- High cholesterol.
- High blood pressure.
- Diabetes.
- A family history of heart disease.
- A sedentary lifestyle, or a lifestyle in which you do not exercise enough.
- Depression.
- Had radiation treatment to the left side of your chest.

Other risk factors include:

- Using tobacco.
- Being obese.
- Eating a diet high in saturated fats.
- Being exposed to high stress or triggers of stress.
- Using drugs, such as cocaine.

Women have a greater risk for angina if they:

- Are older than age 55.
- Have gone through menopause.

## **What are the signs or symptoms?**

Common symptoms of this condition in both men and women may include:

- Chest pain, which may:
  - Feel like a crushing or squeezing in the chest, or a tightness, pressure, fullness, or heaviness in the chest.
  - Last for more than a few minutes, or stop and come back over a few minutes.
- Pain in the neck, arm, jaw, or back.
- Unexplained heartburn or indigestion.
- Shortness of breath.
- Nausea.
- Sudden cold sweats.

Women and people with diabetes may have unusual (*atypical*) symptoms, such as:

- Fatigue.
- Unexplained feelings of nervousness or anxiety.
- Unexplained weakness.
- Dizziness or fainting.

## **How is this diagnosed?**

This condition may be diagnosed based on:

- Your symptoms and medical history.
- Electrocardiogram (ECG) to measure the electrical activity in your heart.
- Blood tests.
- Stress test to look for signs of blockage when your heart is stressed.
- CT angiogram to examine your heart and the blood flow to it.
- Coronary angiogram to check for arterial blockage.
- Echocardiogram (*ultrasound*) to assess the strength of your heartbeat.

## **How is this treated?**

Angina may be treated with:

- Medicines to:
  - Prevent blood clots and heart attack.
  - Relax blood vessels and improve blood flow to the heart.

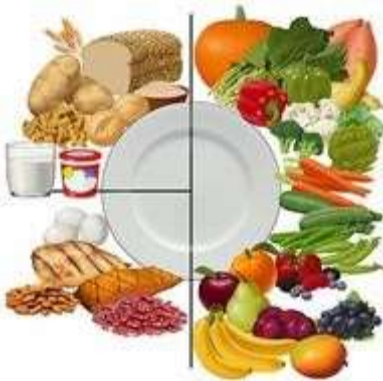
- Reduce blood pressure, improve heart pumping, and relax blood vessels spasms.
- Reduce cholesterol and help treat atherosclerosis.
- A procedure to widen a narrowed or blocked coronary artery (*angioplasty*). A mesh tube (*stent*) may be placed in a coronary artery to keep it open.
- Surgery to allow blood to go around a blocked artery (*coronary artery bypass surgery*).

## Follow these instructions at home:

### Medicines

- Take over-the-counter and prescription medicines only as told by your health care provider.
- **Do not** take the following medicines unless your health care provider approves:
  - NSAIDs, such as ibuprofen or naproxen.
  - Vitamin supplements that contain vitamin A, vitamin E, or both.
  - Hormone replacement therapy that contains estrogen with or without progestin.

### Eating and drinking



- Eat a heart-healthy diet. This includes plenty of fresh fruits and vegetables, whole grains, low-fat (*lean*) protein, and low-fat dairy products.
- Follow instructions from your health care provider about eating or drinking restrictions.

### Activity

- Follow an exercise program approved by your health care provider.
- Consider joining a cardiac rehabilitation program.
- Take a break when you feel fatigued. Plan rest periods in your daily activities.

### Lifestyle



- **Do not** use any products that contain nicotine or tobacco. These products include cigarettes, chewing tobacco, and vaping devices, such as e-cigarettes. If you need help quitting, ask your health care provider.

- If your health care provider says you can drink alcohol:
  - Limit how much you have to:
    - 0–1 drink a day for women who are not pregnant.
    - 0–2 drinks a day for men.
  - Be aware of how much alcohol is in your drink. In the U.S., one drink equals one 12 oz bottle of beer (355 mL), one 5 oz glass of wine (148 mL), or one 1½ oz glass of hard liquor (44 mL).

### General instructions

- Maintain a healthy weight.
- Learn to manage stress.
- Keep your vaccinations up to date. Get the flu (*influenza*) vaccine every year.
- Talk to your health care provider if you feel depressed. Take a depression screening test to see if you are at risk for depression.
- Work with your health care provider to manage other health conditions, such as hypertension or diabetes.
- Keep all follow-up visits. This is important.

### Get help right away if:

- You have pain in your chest, neck, arm, jaw, or back, and the pain:
  - Lasts more than a few minutes.
  - Is recurring.
  - Is not relieved by taking medicines under the tongue (*sublingual nitroglycerin*).
  - Increases in intensity or frequency.
- You have a lot of sweating without cause.
- You have unexplained:
  - Heartburn or indigestion.
  - Shortness of breath or difficulty breathing.
  - Nausea or vomiting.
  - Fatigue.
  - Feelings of nervousness or anxiety.
  - Weakness.
- You have sudden light-headedness or dizziness.
- You faint.

**These symptoms may represent a serious problem that is an emergency. Do not wait to see if the symptoms will go away. Get medical help right away. Call your local emergency services (911 in the U.S.). Do not drive yourself to the hospital.**

### Summary

- Angina is discomfort in the chest, neck, arm, jaw, or back that is caused by a lack of blood in the arteries of the heart wall.
- There are many symptoms of angina. They include chest pain, unexplained heartburn or indigestion, sudden cold sweats, and fatigue.
- Angina may be treated with lifestyle changes, medicines, or surgery.
- Symptoms of angina may represent an emergency. Get medical help right away. Call your local emergency services (911 in the U.S.). **Do not** drive yourself to the hospital.

This information is not intended to replace advice given to you by your health care provider. Make sure you discuss

any questions you have with your health care provider.

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