

Patient Information

For : Educational Material

Unstable Angina

What is unstable angina?

Angina is the chest discomfort you feel when not enough blood is getting to your heart muscle. Some people feel it as pain. Some feel it as a heaviness or a weight on the chest or arms. To others, it feels like a strangling or squeezing in the chest. The discomfort may be in the chest, arms, back, shoulder, jaw, throat, or upper abdomen.

Stable angina is chest discomfort that is usually predictable. It happens with exercise or increased activity. In unstable angina, the chest pain is unexpected. Little or no exercise is needed to cause symptoms. Symptoms may even occur at rest. The pain or discomfort may last longer than in stable angina, and drugs may not work as well. Chest discomfort may wake you up at night.

People with untreated unstable angina are at high risk of a heart attack or death. Recognizing unstable angina and treating it properly greatly reduces these risks.

How does it occur?

The cause is the rupture (breaking) of a plaque inside an artery of the heart. The plaque is a collection of cholesterol, fatty substances, and blood cells attached to the inner wall of the artery. The rupture causes a small blood clot to form, which partially blocks the blood flow in the artery. The body tries to dissolve the clot. Chest pain or discomfort decreases as the clot dissolves and comes back if the clotting process starts again. Treatment is aimed at helping the body dissolve the clot.

How do the symptoms differ from those of a heart attack?

Sometimes it's hard to tell the difference. In a heart attack, chest pain or discomfort is usually severe, and your pain gets worse or occurs at rest.

Seek immediate attention for chest pain that:

- occurs without exertion
- wakes you up
- occurs with sweating, shortness of breath, or nausea
- is not relieved by 2 nitroglycerin pills
- lasts for more than 5 minutes.

Any of these symptoms may be a heart attack and you need

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to be checked right away.

In unstable angina, chest pain or discomfort usually lasts less than 30 minutes. It may alternate between getting better and getting worse. It may result in only minor changes in an electrocardiogram.

How is it diagnosed?

Your healthcare provider will take a careful history and examine you. Other tests may include:

- an electrocardiogram to rule out a heart attack
- a chest X-ray
- blood tests to detect any heart muscle damage
- an echocardiogram to look for abnormal heart contractions.

If you do not have changes on your electrocardiograms or blood tests and you respond to medicine the first time you have unstable angina, you are considered to be at low risk for heart damage. If you are at low risk, exercise treadmill tests can help predict your risk for further problems and whether you need more heart tests.

If your electrocardiograms or blood tests show changes and you continue to have heart pain that comes and goes even with large doses of medicine, you are considered high risk. You will probably need cardiac catheterization. Cardiac catheterization is a test using long tubes placed inside the heart to study its function and show any blocked arteries. The test can help your healthcare provider know if you need coronary bypass surgery or coronary angioplasty treatment.

How is it treated?

Most people with unstable angina need to be in the hospital for treatment to prevent a heart attack. Treatment may include:

- aspirin to help prevent blood clots
- bed rest
- beta blockers, drugs that decrease the heart's need for oxygen
- drugs such as heparin to treat a blood clot in the coronary artery
- nitroglycerin (usually by continuous drip into a vein), a drug that slightly reduces the heart's workload.

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How can I take care of myself?

Carefully follow your healthcare provider's recommendations. He or she will advise you when coronary angioplasty or coronary bypass surgery is needed.

Other measures to follow are:

- Don't smoke.
- Take your medicines regularly.
- Exercise according to your healthcare provider's recommendation.
- Eat a healthy diet, low in fat and cholesterol.
- Keep your blood pressure under good control.
- Promptly inform your healthcare provider of any change in your symptoms.

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