Unstable angina

Unstable angina is a medical emergency. It's a bad pain in your chest that can feel like a heart attack. There are good treatments for unstable angina, but it's important to go to hospital straight away.

We’ve brought together the best and most up-to-date research about unstable angina to see what treatments work. You can use our information to talk to your doctor and decide which treatments are best for you.

What is unstable angina?

Unstable angina is a pain in your chest that happens if your heart is not getting enough oxygen.

You might have never had chest pain before. Or you might have had a type of chest pain called stable angina. Stable angina usually happens when you are active and lasts only a few minutes. It stops when you rest and take your angina medicine. But unstable angina can happen any time, and may not go away when you take your medicine.

If you get unstable angina, it is an emergency. You should dial 999 and get medical help.

Most people get unstable angina because they have coronary artery disease. Coronary arteries carry blood and oxygen to the heart muscle. Coronary artery disease happens when clumps of fat build up on the lining of a coronary artery. Over time, they make the artery narrower.

If you have unstable angina, a clump of fat in one of your coronary arteries tears open. A blood clot forms over the tear to try to patch it up and partly blocks the artery. Not enough oxygen gets to your heart. This is what causes the pain.

The clot may get bigger. If it completely blocks the artery and no oxygen gets to your heart muscle, it’s called a heart attack. This can permanently damage your heart.

What are the symptoms?

The main symptom of unstable angina is a bad pain in your chest. But it can come on in different ways.

Often, prolonged pain is the main symptom. But sometimes it may be a very bad new pain or a worsening of stable angina.

The pain of unstable angina can feel as if there’s a weight on your chest or like a squeezing, crushing, or gripping sensation. It usually lasts at least 20 minutes.

The feeling is usually in the middle of the chest. But you may get it in your neck and jaw, or your back. It may go down one or both of your arms and make them feel heavy.
may get stomach pain or feel as if you have indigestion. You may get breathless and sweaty. Or you may feel sick or exhausted.

If you have unstable angina, you should go to hospital for emergency treatment. The doctors will do tests, including an electrocardiogram (ECG) and blood tests, to see if your heart is beating properly, and to tell whether you are having unstable angina or a heart attack.

**What treatments work?**

If you get treatment quickly, you have a good chance of avoiding having a heart attack and damaging your heart. You’ll have emergency treatment in hospital to prevent a heart attack. You may need an operation to widen your artery.

When you go home, you’ll need to carry on taking medicines to lower your chance of having another attack of unstable angina, or a heart attack. You can also talk to your doctor about how to keep your heart healthy.

**Emergency medicines**

You may need tablets, injections, or an intravenous (IV) drip into your bloodstream. Medicines work faster when they’re put directly into your bloodstream.

To relieve your chest pain, you’ll be given nitrates, which relax the walls of your arteries. You will probably have a nitrate in an IV drip, for at least 24 hours.

Nitrates may give you some mild side effects, including headaches, feeling dizzy, and going red in the face. But these side effects will probably not be as bad as your chest pain.

You may also take medicines called beta-blockers, which slow your heart down. This means it needs less oxygen. They should reduce your chest pain. They may also cut your risk of a heart attack, but there’s not much research to show this. Beta-blockers come as tablets or injections. You may have injections at first. Some names of beta-blockers are atenolol (Tenormin), carvedilol (Eucardic), and metoprolol (Lopresor).

There are lots of different medicines used to reduce your risk of a heart attack. They work by making your blood less likely to clot. So the clot that caused your unstable angina shouldn’t get bigger.

The most commonly used medicine to protect your heart from blood clots is aspirin. There’s lots of research to show that taking aspirin can reduce your chances of having a heart attack or dying, if you have unstable angina. You’ll need to take between 75 milligrams and 325 milligrams each day.

Aspirin has side effects. But the benefits are probably worth the risks if you have unstable angina. The two most common side effects are bleeding and an upset stomach.

If you are allergic to aspirin, you may take a similar medicine called clopidogrel instead. It works in the same way. Or you may take the two drugs together. Studies show you
may be a little less likely to have a heart attack if you take both clopidogrel and aspirin. Like aspirin, clopidogrel can cause bleeding.

You will probably also have one of three other medicines that prevent your blood from clotting. These are:

- **Heparin.** Available as a long-lasting type (called low-molecular-weight heparin), which is given as an injection, and a shorter-lasting type (called unfractionated heparin) given as an IV drip. Both types can cut your risk of having a heart attack or dying, but the long-lasting type works better.

- **Fondaparinux.** This is a type of drug known as a factor Xa inhibitor. If you have injections of fondaparinux (brand name Arixtra) following an attack of unstable angina, you are less likely to have a heart attack or die in the days after.

- **Glycoprotein IIb/IIIa inhibitors.** Having one IV drip of these drugs as soon as possible can reduce your chance of having a heart attack. But there is a risk of serious bleeding, and they are not used for everyone with unstable angina.

- **Direct thrombin inhibitors.** These drugs are not used much. But you might have them if you are allergic to heparin. They're given as an IV drip.

Heparin, fondaparinux and direct thrombin inhibitors also increase your chances of bleeding. But the chances of serious bleeding are less than with glycoprotein IIb/IIIa inhibitors.

**Surgery**

**Coronary angioplasty** is an operation that widens your coronary arteries, so blood can flow more easily to your heart. Doctors may suggest this soon after you've had an attack of unstable angina.

To carry out an angioplasty, a surgeon feeds a thin deflated balloon into your heart artery, through a tube in a blood vessel in your groin. When the balloon is in the right place, the surgeon inflates it, so it widens the artery. Then it's taken out again. Sometimes a small metal tube (called a stent) will be inserted, to keep the artery open.

All operations carry some risks. The most recent studies all found that the risk of bleeding during angioplasty was about twice as high as the risk with the usual treatment with medicines.

**Long-term treatments**

Once you get over your bout of unstable angina, your doctor will talk to you about how you can make your health better and stop your angina getting worse.

You will probably go home from hospital with lots of new medicines. This can be confusing. If you're not sure what they all are, ask your doctor. The medicines you are most likely to need are listed below. You will probably need to take them for many months, and maybe years.
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You will probably need to keep taking some of the medicines you started in hospital, including low-dose aspirin and beta-blockers. You will probably be given nitrate tablets or a spray, to take if you get angina pain. There are other medicines you may need to lower your risk of having a heart attack. These could include statins to lower the amount of cholesterol in your blood, and ACE inhibitors to lower your blood pressure.

How you can help yourself

Medicines are important, but there are also many things you can do yourself.

If you smoke, try hard to stop. Smoking narrows the arteries and makes you more likely to have another heart attack. Get help from a health professional, like your GP.

If you are overweight, try to lose weight. Everyone should eat a healthy diet. You should eat at least five servings of fruits and vegetables every day, one serving of oily fish (such as salmon) every week, and cut back on fat and sugar.

Exercise improves stamina and strength, and makes you feel good. Talk to your doctor about what kind of exercise and how much is safe for you.

Limit how much alcohol you drink. Talk to your doctor about how much is OK.

What will happen to me?

If you've had an attack of unstable angina, you may feel anxious about your future and worry that you could have a heart attack or die. But most people recover well. With the right treatment, many people with unstable angina can keep doing the things they enjoy.

You should still be able to drive, as long as your angina is under control. You don't need to tell the DVLA about your angina. But you do need to tell your car insurance company.

Most people can still enjoy sex. But if you're taking nitrates for angina, you shouldn't take the anti-impotence medicines sildenafil (Viagra), tadalafil (Cialis), and vardenafil (Levitra).

Generally, if you have unstable angina or get frequent chest pains, then you should not fly. If you're not sure if flying is safe, talk to your doctor.

Having angina can also affect certain kinds of work. For example, you may no longer be able to do a job that involves running heavy machinery. Ask your doctor about this.

Having angina can affect how much you get out of life. You may worry so much about your condition that you can't live life normally. If you are feeling very down or depressed, talk to your doctor. There are good treatments that can help.

Where to get more help

The British Heart Foundation is a registered UK charity that provides advice and support to people with heart conditions, including people who've had a heart attack. You can telephone them on 0300 333 1 333 or see the website http://www.bhf.org.uk.