

Coronary angioplasty and stents

Coronary angioplasty is a treatment that helps improve the blood supply to your heart. During the procedure, a special kind of balloon is gently inflated inside the coronary artery. Many people also have a stainless steel mesh called a stent positioned within the artery which allows blood to flow normally again.

Your coronary arteries play a vital role in keeping your heart healthy. But in some people, the coronary arteries can become narrowed or blocked because fatty deposits, called **atheroma**, have built up within the artery walls.

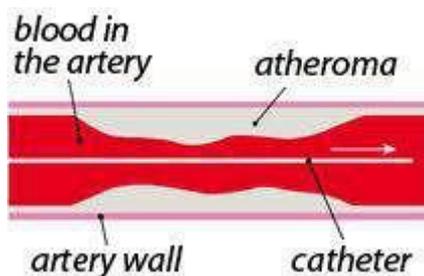
Coronary angioplasty is used:

- To widen narrowed coronary arteries to allow blood to flow through them again.
- To relieve angina symptoms.
- As an emergency treatment for people during a **heart attack**.

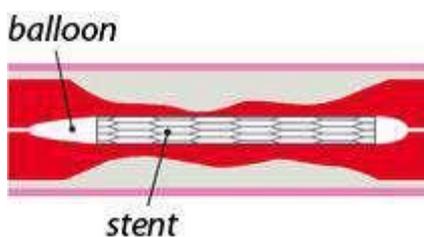
What happens during an angioplasty?

You'll have an **angiogram** before your angioplasty to look inside your coronary arteries to check how much they're blocked and where these blockages are. An angiogram often happens as part of the same procedure.

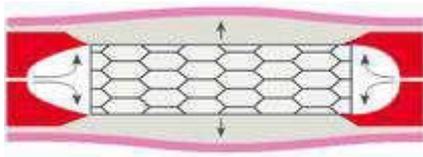
An angioplasty normally takes between 30 minutes and two hours, although it can take longer in some cases.



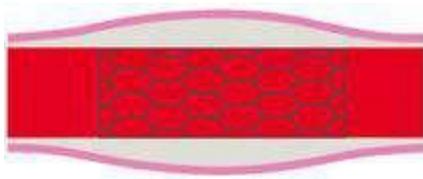
At the start of the procedure you'll be given a local anaesthetic to numb the area in the groin or wrist where a catheter (a fine, flexible, hollow tube) is then passed into an artery. The catheter is then guided to your heart and into a coronary artery until its tip reaches a narrow or blocked section. At the tip of the catheter is a small inflatable **balloon** and a small tube of stainless-steel mesh, called a **stent**.



A special dye (contrast) is injected into the catheter so that your coronary arteries can be seen on an x-ray screen. This helps show where the narrow areas or blockages in your arteries are, and how severe they are. It's normal to feel a hot flushing sensation when the dye is injected.



The balloon on the end of the catheter is then gently inflated so that it squashes the fatty deposits (the atheroma) against the artery wall, widening the artery.



As the balloon is inflated, the stent in place on the balloon expands so that it acts as a scaffold and holds open the artery. The balloon is deflated and removed, leaving the stent in place.

Some people may feel palpitations, or some angina symptoms during or after the procedure. If you feel unwell, or have pain at any time, tell the team.

When the procedure is over, the catheter is removed. Sometimes there might be a small amount of bleeding when it is taken out. A nurse or doctor will press on the area for a short while or they may put in a plug called an angioseal to stop any bleeding. After the procedure, you'll need to stay in bed for a while.

Leaving hospital after an angioplasty

Most people can go home the same day or the next day, but if you've had an emergency angioplasty it's likely you'll need to stay in hospital for longer.

When you get home, check the area where the catheter was inserted. Expect to have some bruising and tenderness, but if you get any redness or swelling, or if the bruising worsens, contact your doctor.

Before you leave hospital, someone will have a chat with you about your recovery and what you can and can't do. It's normal to feel tired afterwards but most people find that they're back to normal after a few days. However if you've also had a **heart attack**, it will take longer to recover.

- It's best to avoid doing any demanding activities, such as heavy lifting, for a week or so.
- You shouldn't **drive** for at least a week after having angioplasty – longer if you also had a heart attack.
- If you've had a planned angioplasty with no complications you may be able to return to work within a few days, depending on the type of work you do.
- If you've had an emergency angioplasty or a heart attack you may need to take a few weeks off.

You should also be invited to go on a **cardiac rehabilitation programme**, a course of exercise and information sessions that help you to recover as quickly as possible.

If you have a stent, you'll need to take certain anti-platelet drugs, including aspirin (unless you're allergic to it) or other drugs such as clopidogrel, ticagrelor or prasugrel to help reduce the risk of blood clots forming in and around the stent.

Stents are not affected by security systems at airports or MRI scans.

What should I do if I get chest pain after I get home?

If you get chest pain, stop and rest and take your GTN if you've been prescribed. The pain should go away within five minutes. If it doesn't, take your GTN again. If the pain hasn't gone away within five minutes of taking the second dose of GTN, call 999 immediately. You could be having a heart attack.

- Learn more about [heart attack symptoms](#).

How successful is coronary angioplasty?

In most cases coronary angioplasty improves the blood flow through the treated artery. Many people find that their symptoms get better and they're able to do more.

Sometimes the artery can become narrowed again, causing angina symptoms to return. But advances in stent technology mean that the risk of this happening is getting lower. Many people are now symptom-free for a long time.

A small number of people have complications. The risk varies depending on your overall health and your individual heart condition. Have a chat with your doctor about the benefits and possible risks of having an angioplasty and any concerns you may have.