

Advice to patients having an angioplasty

What is an angioplasty?

An angioplasty is an x ray procedure to open a narrowed or blocked artery in order to improve blood flow. It involves inserting a long tube (a catheter) into the artery under x-ray control. The catheter has a small 'balloon' at the end, which is inflated inside the blocked or narrowed part of the artery to open it up. In some cases a stent will also be inserted. This is a small tube of fine wire mesh which sits inside the widened artery and helps to prevent it blocking again.

What are the alternatives?

There are no simple drug treatments which will widen the artery. However there are two other forms of treatment which may be considered in specific cases:

- A supervised exercise programme. This can be combined with stopping smoking, controlling diabetes, cholesterol and blood pressure and a weight reduction plan if necessary. This has been found to improve the symptoms you are experiencing and prevent deterioration.
- A surgical bypass operation. This is a major operation and carries more risks than angioplasty. It will usually only be considered if the blockages are too severe for an angioplasty.

Your case will have been discussed between your consultant and the radiologist and it has been decided an angioplasty is the best way of proceeding for you.

What happens before the procedure?

You will usually be admitted a few hours before the procedure. You can eat and drink normally up to one hour before the procedure, and then you may have clear free fluids only. The exception to this is if you are going to require sedation which the vast majority of patients won't.

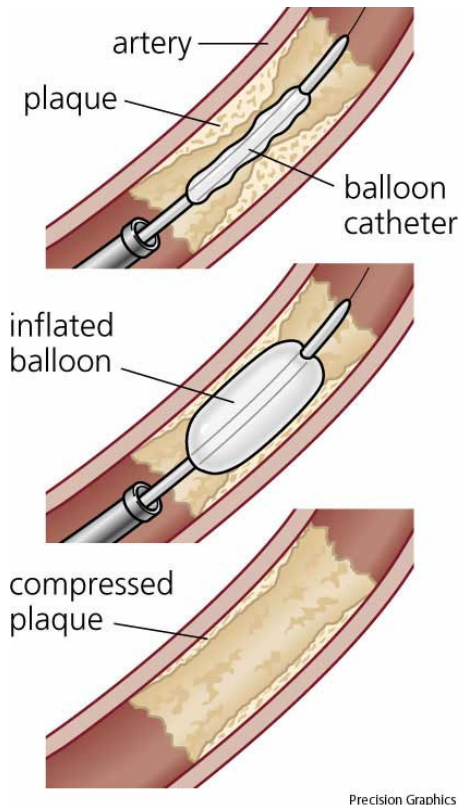
Please bring your medication in with you. Take your usual morning medications with the following restrictions:

- If you take metformin omit it the morning of procedure and do not take for another two days or as directed by your doctor. For some people metformin can react with the contrast medium used during this procedure.
- If you are on warfarin you will be given specific instructions about when to stop taking it to reduce the risk of excessive bleeding.

If you have any more questions please use the contact numbers at the end of this leaflet.

What happens during the procedure?

- The procedure is carried out by a radiologist who is a specialised x-ray doctor. There will also be a radiographer, who is a qualified x ray technician and an x ray nurse.
- First the doctor will freeze the area by injecting a local anaesthetic.
- A small tube is inserted into the artery through the groin.
- A series of pictures are taken of the arteries by injecting dye (contrast) into the tube. The contrast will give a warm feeling and may make you feel like you need to pass water.
- Under X ray guidance a fine wire and tube are passed through the narrowing or blockage.
- A special tube with a balloon on the end is passed across the narrowing and then the balloon is inflated. This stretches the artery.
- The balloon is then deflated and removed.
- Further pictures are taken to see if the angioplasty is successful.



- A wire mesh (stent) may be inserted in some instances in a similar manner. The stent is not removed and eventually becomes covered by the lining of the artery.
- When the procedure is over the catheter is removed and pressure is applied to the puncture site for 10 minutes to stop any bleeding and reduce the risk of bruising.
- The whole procedure usually takes up to an hour but may be longer if a stent is to be inserted.

What happens afterwards?

You will go back to the ward where you will be instructed to lie flat. This is usually for four hours, after which you may sit up for two hours before gently mobilising. This is important to allow the small hole in the artery to heal. If you think you will have difficulty due to chest problems or leg/foot pains tell your doctor.

If an artery in your arm has been used you need to rest it for a few hours.

The nurse will check the puncture site, pulse and blood pressure at regular intervals. This is to check you are making a safe recovery.

You may eat and drink as normal after the procedure. Try to drink plenty of fluid as this will help flush the contrast out of the system.

You will probably stay in hospital overnight. If you are let home the same day make sure there is someone at home with you and someone can pick you up. You must not drive yourself.

Avoid strenuous activity for two days and heavy lifting for three. It is safe to drive after two days.

Very occasionally people get bleeding or swelling at the puncture site. If this happens lie flat with one pillow and press firmly on the puncture site for 10 minutes then go to accident and emergency as soon as possible.

You will be seen in outpatients in six weeks.

Are there any risks?

As with all procedures there are risks. These can be divided into 3 categories:

- With the puncture site

Some bruising is common.

In less than one percent of cases there will be severe bleeding from the artery or blockage of the artery, which may require an operation.

- Reaction to the contrast.

Some patients may have an allergic reaction to the contrast. In most cases this is mild but in some cases it may be a severe reaction requiring treatment with drugs (less than one in 10,000).

The x-ray contrast can affect the kidney function. If you are likely to be at risk special precautions will be taken to reduce the risk. If you are on metformin, do not take on the day of admission and for two days after or as directed by your doctor.

- Related to the treatment

Vessel blockage can occur very rarely after angioplasty of a narrowed artery. The risk of this varies in each patient and depends on other factors which your surgeon can discuss with you. It can sometimes be treated with a stent or may need a further operation.

Very rarely vessel rupture occurs. This may be able to be treated with a stent with a graft cover on to seal the hole. If this fails an urgent operation is required.

Small fragments from the lining of the artery may break off and lodge below the site of angioplasty. This may also require an operation.

The overall risk of requiring another operation is between one and two per cent.

Will it be successful?

In 90-95 percent of cases an angioplasty/stent will be successful. In a small number of cases of those that were not successful a surgical bypass may be offered.

Can I help myself?

There are several things you can do to help yourself. The most important thing is give up smoking. If you continue to smoke you reduce the chance of improving the blood supply. Smoking speeds up hardening of the arteries and also reduces the amount of blood and oxygen supplied to the muscles. In addition, you are putting yourself at risk of developing cancer, chest complaints and heart problems. Please ask for help from your GP or staff at the hospital.

It is important if you are overweight to lose weight. Your legs need more energy and therefore blood if you are overweight. Your doctor or practice nurse can give you advice about a weight reducing diet. If your cholesterol is high it is important it is lowered with diet and drugs.

Regular exercise can help increase the distance you can walk without pain. In addition it will help strengthen your heart and lungs, keep your weight down and control your blood pressure and cholesterol. However, always check with your doctor or specialist nurse before commencing an exercise programme especially if you have other medical problems.

This information is meant only as a guide and your treatment may vary from what is written.