

Having an angioplasty

The aim of this information sheet is to help answer some of the questions you may have about having an angioplasty in the Interventional Radiology (IR) department. It explains the benefits, risks and alternatives of the procedure as well as what you can expect when you come to hospital.

If you have any questions or concerns, please do not hesitate to speak to a doctor or nurse caring for you.

What is an angioplasty?

You may have previously had an angiogram, where the interventional radiologist (a doctor who uses x-rays to diagnose and treat illnesses) found that you have stenosis (narrowing) in one or more arteries and suggested an angioplasty to address this problem.

An angioplasty is a minimally invasive procedure performed under local anaesthetic to open up the narrowed section in your artery. A fine plastic tube (catheter) is inserted through a blockage in an artery and a small balloon on the catheter is then inflated pushing the blockage against the wall of the blood vessel. This procedure improves blood flow which helps to relieve any symptoms you are experiencing. This leaflet applies to angioplasties of arteries in the legs, arms and kidney performed in the Interventional Radiology (IR) Department.

What happens during an angioplasty?

You will be taken into the interventional radiology theatre, and asked to lie on the table. Monitoring equipment will be attached to you to measure your blood pressure and heart rate. If you feel anxious before or during the procedure, please ask for some sedation, which is medication to help you to relax. However, this will not put you to sleep, so you will be awake and be able to talk throughout the procedure.

- The nurse will clean your groin area with an antiseptic skin solution, and place a sterile drape over most of your body. The radiologist will numb your groin area with an injection of local anaesthetic. This will sting at first and then settle.
- Once your groin is numb, the radiologist will make a small incision in an artery in your groin.
- A short tube, called a sheath, will then be placed into the artery to keep it open while a thin, flexible tube called a catheter is inserted into the artery.
- Using x-ray imaging, the catheter will be directed through your blood vessels to the narrowed section in your leg.
- Fluid called contrast dye will be injected through the catheter into the arteries in your leg. This fluid can be seen under x-ray, so the radiologist will be able to view and take 'pictures' of your leg arteries before, during and after your angioplasty.
- At intervals you will be asked to hold your breath so that static (still) x-ray images can be taken.

- The table you are lying on will move - it is important that you lie flat and as still as possible to make sure your doctor can carry out the procedure safely.
- There is a small deflated balloon at the end of the catheter. Once the catheter is in the narrowed section of the artery, the balloon is slowly inflated to squash the blockage against the artery wall. It is common to feel some discomfort when the balloon is being inflated. This is because the balloon blocks the artery, stopping blood flow. but the discomfort should ease off once the balloon is deflated. We can give you pain relief if you are uncomfortable, so please tell your nurse if you have any discomfort.

The angioplasty takes about 40-60 minutes. When it is completed the catheter will be removed. The radiologist will press on the puncture site for about 10-20 minutes. This is to seal the puncture site and stop it from bleeding. You will not have a dressing on the site, because your nurse needs to be able to check it.

If the angioplasty fails to improve the blood flow, it may be possible to place a stent (metal scaffold) in the artery. Once the stent is in place it cannot be removed and will eventually become covered by the lining of the artery. This can usually be done immediately after your angioplasty extending time of the procedure.

Why are the benefits of having an angioplasty?

An angioplasty will help to relieve the discomfort or pain you are having in your leg. This can help to improve your quality of life.

What are the risks?

An angioplasty cannot be performed without some element of risk. Complications are less common during planned (elective) procedures and the majority of patients have no major problems. You will need to stay in hospital for about four to five hours after the angioplasty to make sure it is safe for you to go home. It is important to be aware of the following possible risks before you sign your consent form:

- Allergic reaction to the dye (contrast) used to obtain the x-ray pictures. This reaction is usually minor, for example a skin rash, which will clear up on its own. Rarely, it can be a more serious allergy to the dye, which can be treated with steroids. Please tell your nurse or doctor if you have had a previous allergic reaction to iodine or other allergies.
- The iodine in the x-ray dye can affect renal (kidney) function, particularly if there is already some kidney damage. Intravenous fluids and medication can be given before and after the procedure to try to reduce this risk. A routine pre-procedure blood test will always be done to check your renal function.
- Bleeding or bruising under the skin, where the catheter is inserted in the groin. This is known as a haematoma and is very common, and can take one to two weeks to disappear.
- Occasionally the artery can be damaged during the procedure. This can sometimes be treated in the same department by putting a stent (artificial tube) with a covering around it (stent-graft) into the artery to seal the tear. If this is not possible an operation may be needed to repair the artery. Less than 1 in 100 people need this operation.
- Small fragments from the lining of the artery can occasionally break off and lodge in an artery below the angioplasty. This may also need an operation to remove the fragment if it is causing a problem with the blood flow.
- Restenosis is one of the most common complications of angioplasties. This involves the gradual re-narrowing of the blood vessels in the weeks/months following the procedure. There are certain conditions that increase the risk of this complication and these are hypertension (high blood pressure), diabetes, angina and kidney disease.

Are there any alternatives?

Narrowing of the blood vessels in your leg can be treated in a number of ways – with an angioplasty, medicines or with an artery bypass surgery (see our information leaflet, **Femoro-popliteal and femorodistal bypass**). Each type of treatment has different risks and benefits. Your doctor feels that an angioplasty is the best way to improve your symptoms. However, please feel free to ask your doctor about the other forms of treatment.

How can I prepare for an angioplasty?

You can come into hospital, have an angioplasty and go home the same day. You will need to arrange for someone to take you home by car or taxi and to stay with you overnight.

- Please let us know if you are taking any **antiplatelet medicines** (for example, aspirin, clopidogrel) or any **medicines that thin the blood** (for example, warfarin), as these may need to be withheld temporarily before the procedure. Call the IR Department for advice as soon as you get your appointment letter on **020 7188 5573** (for Guy's Hospital) or **020 7188 5477** (for St Thomas' Hospital).
- If you are taking **medicines for diabetes** (for example, metformin) or using insulin, then these may need to be altered around the time of the procedure. Call the IR Department on the numbers above for advice as soon as you get your appointment letter.
- Let your doctor know about any medicines you are taking. Take your other medicines as normal, unless your doctor or nurse tells you not to.
- You cannot eat or drink anything (except water) for six hours before surgery. You can drink water up to 2 hours before your surgery.
- You should have a shower or bath on the morning of your angioplasty. This will make sure your groin area is clean and helps to prevent infection.

If you are having an angioplasty while you are staying in hospital, your nurse will help you to prepare.

What happens before the procedure?

When you arrive in the IR Department, you will be checked by a radiology nurse and given a hospital gown to wear.

You will be given the opportunity to ask the radiologist any questions you have. You will need to sign the consent form. A small plastic tube (cannula) will be put into your arm. This means that we can give you a sedative medicine during the procedure, if you need it.

Will I feel any pain?

The local anaesthetic injection can sting for a few minutes. The examination should be pain free, though occasionally you may feel the radiologist pressing on your groin. It is common to feel some discomfort when the balloon is being inflated. The position in which you will be asked to lie during the angioplasty may be uncomfortable for a short period. If you feel uncomfortable, please tell the nurse so you can be given more pain relief. You may experience a warm sensation when the dye is being injected into your artery but this wears off fairly quickly.

Giving my consent (permission)

The staff caring for you will ask your permission to perform the procedure. You will be asked to sign a consent form that says you have agreed to the procedure and that you understand the benefits, risks and alternatives. If there is anything you don't understand or you need more time to think about it, please tell the staff caring for you.

Remember, it is your decision. You can change your mind at any time, even if you have signed the consent form. Let staff know immediately if you change your mind. Your wishes will be respected at all times. If you would like to read our consent policy, please tell a member of staff.

What happens after the angioplasty?

You will be taken to the recovery room where you will need to stay flat in bed for two hours and then be allowed to sit up. You will rest in bed and be able to walk around after six hours. Your blood pressure and pulse will be checked at regular intervals and a clip on your finger will measure the oxygen level in your blood. The nurse will also check the pulse in your foot. This is found around the base of your ankle – it is not painful.

We will provide light refreshment, such as tea or coffee, a sandwich and some fruit. If you have any special dietary requirements, you may wish to bring some food and drink with you.

The nurse will tell you when you can get up and move around and when you will be able to go home if it is safe for you to be discharged on the same day. In some cases depending on your circumstances and the complexity of the procedure you may be admitted to a ward for an overnight stay. You will need a responsible adult to take you home by car or taxi. We do not recommend that you use public transport, as it is unsafe if you feel unwell.

When will I receive the results?

The radiologist will explain the results of the procedure before you leave hospital. An appointment to see your referring consultant in a follow-up clinic will be either telephoned through to you or sent in the post for four to six weeks time.

Angioplasty is successful in treating the narrowing of the artery in the vast majority of patients (90 – 95 out of 100 people). In the small number of patients where the procedure is unsuccessful, a surgical bypass operation may be offered as an alternative.

What do I need to do after I go home?

You should rest for the remainder of the day and possibly for the next day, depending on how you feel. You can then resume your normal activities. You may notice some bruising at the puncture site.

- Have someone stay with you overnight.
- Eat and drink normally.
- Take your usual pain relief, as prescribed, if you have any pain.
- Continue with your normal medication as prescribed, but if you take any diabetes medicines containing metformin, please do not take them for the next two days.
- You can have a shower or bath 24 hours after the procedure.

To give the puncture site time to heal, do not:

- drive for 48 hours after the procedure
- exercise for 48 hours after the procedure.

Is there anything I can do to prevent further narrowing?

You can improve your general health by taking regular exercise, stopping smoking and reducing the fat in your diet. These actions will help slow down the hardening of the arteries which caused the problem in the first place and may avoid the need for further treatment in the future.

If you were previously a smoker you must make a sincere and determined effort to stop completely. Continued smoking will cause further damage to your arteries and your angioplasty is more likely to stop working. You can contact the free NHS smoking helpline on 0800 022 4 322 or the Knowledge & Information Centre (KIC) (details below) who will give you details of our support services.

Appointments at King's

We have teamed up with King's College Hospital in a partnership known as King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at King's. To make sure everyone you meet always has the most up-to-date information about your health, we may share information about you between the hospitals.

Contact us

Please contact the Interventional Radiology Department at Guy's Hospital on 020 7188 5525 or St Thomas' Hospital on 020 7188 5477, Monday to Friday, 9am to 5pm if you need advice or:

- your wound starts to bleed
- you feel unwell.

If you have any questions or concerns before or after you leave hospital, you can also contact the vascular nurse specialist on 020 7188 0056, Monday to Friday, 9am to 5pm.

Outside of these hours, contact Luke Ward on 020 7188 3566, your GP or, if it is urgent, go to your nearest A&E department.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Patient Advice and Liaison Service (PALS)

To make comments or raise concerns about the Trust's services, please contact PALS. Ask a member of staff to direct you to the PALS office or:

e: 020 7188 8801 at St Thomas' **t:** 020 7188 8803 at Guy's **e:** pals@gstt.nhs.uk

Knowledge & Information Centre (KIC)

For more information about health conditions, support groups and local services, or to search the internet and send emails, please visit the KIC on the Ground Floor, North Wing, St Thomas' Hospital. **t:** 020 7188 3416

Language support services

If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.

t: 020 7188 8815 **fax:** 020 7188 5953

NHS Direct

Offers health information and advice from specially trained nurses over the phone 24 hours a day. **t:** 0845 4647 **w:** www.nhsdirect.nhs.uk

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health. **w:** www.nhs.uk

Become a member of your local hospitals, and help shape our future

Membership is free and it is completely up to you how much you get involved. To become a member of our Foundation Trust, you need to be 18 years of age or over, live in Lambeth, Southwark, Lewisham, Wandsworth or Westminster or have been a patient at either hospital in the last five years.

To join, please call 0848 143 4017, email members@gstt.nhs.uk or visit www.guysandstthomas.nhs.uk

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