



A guide to...

Angiogram and Angioplasty *Patient Information*

Radiology Interventional Department

This leaflet tells you about having an angiogram. It explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such discussions. If you have any questions about the procedure please ask the doctor who has referred you or the department which is going to perform it.

The femoral arteries run from the groin to the thigh, delivering blood to your legs. When there is a narrowing or blockage in these arteries, the blood supply to the legs is reduced, which can cause pain in your calf on exercise. This is known as intermittent claudication.

In severe cases reduced blood supply can cause constant pain in the foot (rest pain). Poor blood flow can also mean that minor injuries do not heal and can form ulcers, or toes turn black after minor knocks (tissue loss).

We're going to perform an angiogram to further assess the blood flow into your leg and possibly an angioplasty to improve the blood flow where possible.

The procedure

Angiogram

An angiogram is a special x-ray examination designed to show the arteries in your body relevant to your problems. It's performed when you're awake under local anaesthetic. An iodine dye (contrast) is injected directly into the artery through a fine tube (catheter). The dye fills the arteries so that we can see them more clearly on an x-ray screen. Occasionally we may then need to do an angioplasty (see below), which we can often do at the same time, but there are situations where you would need to come back to have a further procedure.

Angioplasty

A thin plastic tube (catheter) is inserted into the artery and passed through the blockage. A special balloon on the end of the catheter is placed across the narrowing or blockage. This balloon is inflated from outside the body momentarily and then deflated to improve the flow through the blood vessel. Sometimes a stent is placed if needed.

Stent

A stent is a special device made of metal mesh that is placed across a narrowing or blockage to keep the artery open.

Length of procedure

Procedures can last from between 30 minutes to a couple of hours. It is often difficult to predict how long a procedure will take. The team will keep you informed as your procedure progresses. Any decision on treatment will be carefully considered by your vascular multidisciplinary team (MDT) and discussed in detail with you.

Are there any alternatives to this treatment?

Surgical bypass is an alternative that may be appropriate. Your surgeon will discuss the decision-making process with you. If you decide not to receive any treatment then your symptoms are unlikely to improve. In some cases symptoms can get worse and this may lead to amputation.

What are the risks of the procedure?

Both angiograms and angioplasty are safe procedures but, as with any medical procedure, there are some risks and complications that can arise, these typically include:

A small bruise (common)

This can occur around the site of the needle, but it's quite normal. The bruise might be sore for a few days but will disappear in a few weeks.

A large bruise/haematoma (uncommon)

This may develop and could require a small operation to drain it. This can lead to a wound infection (rare).

False aneurysm (rare)

A tender pulsating swelling called a false aneurysm may develop over a few days due to ongoing leakage from the arterial puncture site. This can usually be treated by an injection of a blood-clotting agent under ultrasound guidance.

Kidney injury (rare)

The iodine in the contrast dye is very safe but can occasionally affect kidney function, particularly if there is already some kidney damage, which the blood tests performed before the procedure will show. Intravenous fluids and medication can be given before and after the procedure to try to reduce this risk.

Allergic reactions (very rare)

A reaction to the contrast dye is possible, but very rarely serious.

Blockage of the arteries (very rare)

Some damage can be caused to the artery by the catheter or if material causing a blockage is dislodged and causes a blockage in other arteries (an embolus). This may require an operation or another procedure.

Limb loss (extremely rare)

The procedure is performed to improve the blood flow into the leg but any intervention carries a risk of worsening the situation and threatening the leg. We will be happy to discuss these risks with you, or answer any questions that you may have.

Consent

We must seek your consent for any procedure or treatment before it can go ahead. Your medical team will explain the risks, benefits and alternatives where relevant before they ask for your consent. If you're unsure about any aspect of the procedure or treatment proposed, please do not hesitate to ask for more information

Preparing for your operation

Smoking is a major risk for arterial disease, increases the chances of getting a chest infection and slows your recovery. So if you're a smoker, you need to stop. The NHS Quitters service is available to help support you. You can contact them on **0300 123 1044** or westherts.smokingcessation@nhs.net. You can also talk to your GP who can prescribe nicotine replacement for you. Exercise can boost your immune system and help your recovery so try gentle exercise, such as walking and cycling.

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Coming into hospital

What to bring

When you come into hospital there are a few items that you should bring:

- All your medications (including insulins and inhalers)
- Nightwear and changes of clothes
- Toiletries
- Dentures, glasses and hearing aids if you have them

Bring them in a small bag labelled with your name. There isn't much storage space on the ward so it should only be a small bag. We recommend that you leave valuable items at home; especially as you'll be asked to remove jewellery prior to your procedure. The ward cannot accept responsibility for items left on the ward and not handed to the cashiers for safe keeping.

What to expect during your stay in hospital

Prior to your procedure you will be assessed to ensure nothing has changed. You may have further blood tests. A drip (cannula) will be inserted into your arm to allow for medications or fluids to be given. The procedure is performed with an injection into the area where the needle is inserted (local anaesthetic). Your pulse, blood pressure, temperature and breathing rate will be monitored.

When you return to the ward you will need to remain lying flat for a few hours and remain on the bed for up to six hours. This is to allow the artery to seal after having the needle inserted. You will be advised by the team after the procedure exactly how long this will be.

Pre-assessment

Before you are admitted for your procedure you will be seen by a nurse in clinic. We'll take a detailed medical history, as well as perform blood tests, a physical examination, blood pressure checks and a heart trace (ECG). You should bring in a list of the medications you take and when you take them. We'll let you know if you need to make any changes to your medication for your procedure.

Thinking about your return home

Before your procedure, it's a good idea to start thinking about how you will manage at home after the procedure. We encourage patients to stay with family or friends or to have a relative staying with them if possible. If you live alone or require additional support then we may need to help you make plans for a short period before you go home. The sooner we know this, the sooner we can start arranging something for you. Talk to your close family, friends and GP to see what options you have. You will need to be collected from hospital on the day you are discharged so, before you come into hospital, you should arrange who will collect you. It's also worth asking someone to get you fresh food so you have something at home when you leave hospital.

If you need this leaflet in another language, large print, Braille or audio version, please call **01923 217 187** or email **westherts.pals.nhs.uk**



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