

Information for patients

Having an Aortic Arch-Angiogram



Other names: **Aortic arch-angiogram, arch-angiogram, arch-aortogram.**

You have been given this leaflet because you need a procedure known as an **Aortic Arch-Angiogram**. This leaflet explains more about Aortic Arch-Angiograms, and answers some of the most frequently asked questions.

If, after reading this leaflet, you have any questions or concerns, you should write them down and discuss them at your next appointment with the consultant, doctor or specialist nurse. It is important that you understand the procedure, along with the potential benefits and risks before you agree to it.

Where will my hospital appointments take place?

This will depend on which specialist doctor you are seen by. You could be seen by a Neurologist, a Stroke Physician, a Vascular Surgeon or a Radiologist.

Most of the appointments will be at either the Northern General or Royal Hallamshire Hospitals. However, you may also be seen at one of the outreach clinics at Rotherham or Barnsley District Hospitals.

What is an aortic arch-angiogram?

An aortic arch-angiogram is an x-ray test that enables us to diagnose a problem (most commonly a narrowing or a blockage) in the arteries supplying your head, neck and arms.

Arteries do not usually show up on x-rays, so the images are obtained by introducing a long, thin, flexible tube (a catheter) into an artery, usually at the top of your leg. Then, a special x-ray dye (contrast medium) is injected through it, into the circulation. The blood flow carries the dye along, highlighting the arteries, and x-ray pictures are taken. The catheter is then removed.

Why do I need the procedure?

Most patients having an aortic arch-angiogram will be doing so because they have had a type of mini-stroke, either affecting the eye (Amaurosis Fugax) or the brain (Transient Ischaemic Attack (TIA)) or recovered full stroke (Cerebro-Vascular Accident (CVA)), and this has signalled the possibility of having a more severe stroke in the future.

Occasionally, the test is used to investigate other problems relating to the arteries supplying the head, neck or arms. Your doctor or nurse should be able to explain why we recommend you have the test.

Will I need any other tests first?

We can look at the arteries supplying the neck, head and arms, in a number of ways. An ultrasound test is usually performed first and, if that suggests a significant narrowing in one or more of the arteries, then further tests are indicated. Often, a Magnetic Resonance Imaging (MRI) scan or Computerised Tomography (CT) scan will be performed as the next step, but there are sometimes limitations with these, and so an arch angiogram may be performed after or instead of an MRI or CT, to give us the information that is required and help plan future treatment.

You will also have blood tests to check it is safe for you to have the procedure.

If you are an outpatient, you will be assessed by a nurse, to see if your circumstances allow the procedure to be carried out as a day-case (i.e. come into hospital, have the procedure and go home the same day), or whether you will need to be admitted to hospital for a short time to prepare you for the treatment, and allow sufficient recovery time afterwards.

You should tell the doctor or nurse if you have any allergies, and also what medicines you are taking. If you are on Metformin (Glucophage) for diabetes, or Warfarin to thin the blood, you may be asked to stop these two days before the procedure by the angiography department who are organising your procedure.

Before your procedure

We must seek your consent for any procedure or treatment beforehand. Staff will explain the risks, benefits and alternatives where relevant before they ask for your consent. If you are unsure about any aspect of the procedure or treatment proposed, please do not hesitate to ask for more information.

How long will I be in hospital?

This procedure can be performed as a day case procedure. This means that, if you are an outpatient, you will come into hospital on the morning of your procedure and go home later that afternoon. Occasionally, due to a number of reasons, you may not be suitable to have the procedure done as a day case, and then you will have to stay in hospital overnight.

If you are an inpatient, then you will have this procedure as part of your treatment.

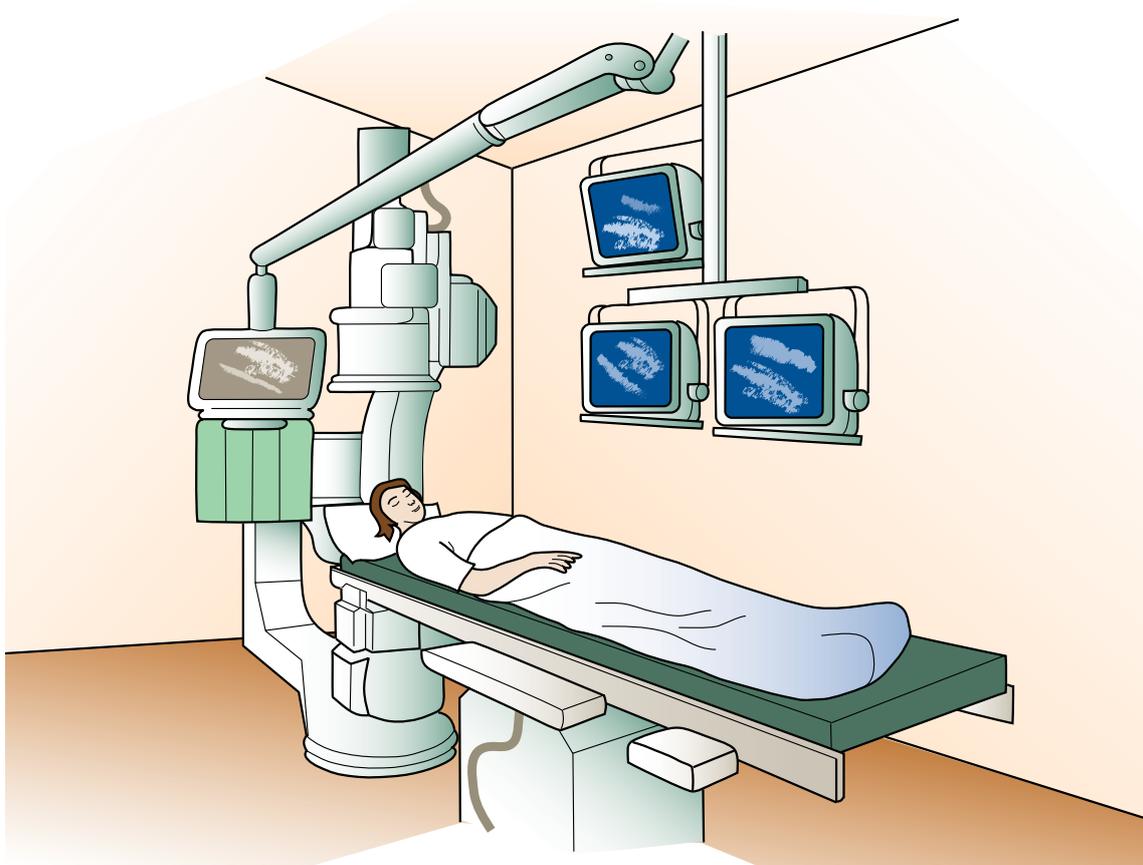
Do I need to bring anything in particular with me?

Please bring all the medicines you are taking in to hospital with you. You will only need to bring toiletries and nightwear with you if you are staying in hospital overnight. If you wear a hearing aid, please bring this with you.

We do advise that you leave valuables and cash at home, with the exception of a small amount of cash for you to purchase newspapers and other items, or to use the patient-line system.

How is it done?

The angiogram is performed by a specialist X-ray doctor (a Radiologist) or a specialist radiographer in the Angiography department in the X-ray department. A nurse will go through some pre-test checks, and confirm you are happy to proceed, before you are brought into the X-ray room.



You will be dressed in a hospital gown, asked to lie flat on a special X-ray table, and the doctor will feel for the pulses at the top of your legs. In most cases, this will be the site that the catheter is introduced into the artery, but rarely, because of poor or absent pulses in your groins, it is necessary to introduce the catheter via an artery in your arm.

The skin over the artery is sterilised with antiseptic, and local anaesthetic is used to numb the skin and tissues overlying the artery. The catheter is then introduced into the artery and advanced under X-ray guidance, until it is in the correct position. X-ray dye is injected down the catheter into the blood stream, and X-ray pictures are taken. You will be asked to lie very still when this happens, as even a small amount of movement can blur the pictures of the arteries. At the end of the procedure, the catheter is removed and pressure is applied over the tiny hole made in the artery, to seal it up.

Does it hurt?

It is a relatively minor procedure, but it does require anaesthetic to make it comfortable. Local anaesthetic is given, which stings when first injected, but this soon wears off, leaving the skin numb. You may still feel the doctor pressing on the skin, particularly when inserting or exchanging a catheter. If it is painful, more local anaesthetic can usually be given. You should not feel the catheter inside the arteries.

When the X-ray dye is injected, you may feel hot, have a metallic taste in your mouth, and experience a funny sensation, as if you are passing water. This soon settles, and is just an effect of the dye.

What happens afterwards?

You will be taken back to the ward or into the day unit, where you will be asked to rest, relaxing flat in bed for a few hours. This is to allow the groin puncture site time to heal further, as moving around or tensing up could cause the hole to open up again, causing bleeding. The nursing staff will check your groin, your blood pressure and other observations at regular intervals.

The nurse will advise you how long you need to stay in bed for, but it is usually 4 - 6 hours, depending on the size of the hole that has been made.

If you are having the procedure as a day case, you will be allowed home later that day.

Are there any risks or complications?

Aortic arch-angiogram is generally a very safe procedure, but there are some risks and complications, which you should be aware of. The most likely complication is the development of some bruising or a small lump in the groin where the catheter was inserted. This occurs in about 1 in 10 patients (10%), is usually mild, and settles over a couple of weeks.

If you are having the test because you have already had a stroke, there is a 1 in 500 (0.2 %) risk of having a further one.

Occasionally, the hole in the artery fails to close, and blood can escape into a small cavity in the surrounding tissues, and this is called a pseudo-aneurysm (or false aneurysm). If this occurs, you may notice a persistent lump in the groin, which may pulsate. This may require further treatment (about 1 in 1000 (0.1%) people).

There is an even smaller risk of damage to the vessels, or a reaction to the x-ray dye, either of which might need further treatment to prevent limb or life threatening complications. The risk of death is extremely low.

What happens after I have gone home?

Once home, you should drink plenty for 24 hours, and take it easy for the first 48 hours, avoiding driving, strenuous activity or sexual intercourse. This allows the artery time to heal properly.

Will I need to come back to hospital for a check up?

If you are already an inpatient, and the angiogram was to investigate a type of stroke, then your doctors (including a neurologist, radiologist and a vascular surgeon) will look at the X-rays and discuss their findings. They will decide on the various forms of treatment options that are available for you and then come and discuss these with you.

If the test was to investigate other problems relating to the blood supply, you will usually be seen in clinic within 4 - 6 weeks to discuss the findings.

How can I help myself?

If you are a smoker, you must make a determined effort to stop completely. Continued smoking will cause further damage to your arteries. Smoking cessation help is available from your GP or the hospital. General health measures, such as reducing weight, a low fat diet and regular exercise are also important.

What if I think there is something wrong when I get home?

If you think there is something wrong when you get home, you should contact the ward from which you were discharged, or the angiography suite.

Northern General Hospital

Angiography Suite (0114) 271 5346

Firth 2 (0114) 271 4602

Vascular Nurse Specialist (0114) 271 4688 / 2269311

Vascular Radiology Secretary (0114) 2714968

Royal Hallamshire Hospital

L2 (0114) 271 2419

If you notice any bleeding, severe tummy pain or cramps, or develop a lump in the groin once you get home, you should seek urgent medical advice.

Other Useful Contacts

Stroke Prevention Co-ordinator (0114) 271 3749

The Circulation Foundation
www.circulationfoundation.co.uk

Sheffield Stop Smoking Service 0800 068 4490
www.sheffieldstopsmoking.org.uk

Smoke free 0800 022 4332
www.smokefree.nhs.uk

Related Patient Information Leaflets

Carotid Artery Disease

Carotid Endarterectomy

Carotid Stenting

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