

Interventional Radiology Angiography

What is an angiogram?

An angiogram or arteriogram, as it is sometimes known, is a special X-ray that enables us to diagnose a blockage or narrowing in the deep blood vessels (arteries) of the body. Normally, blood vessels do not show up on ordinary X-rays. However, by injecting a special dye called contrast medium into an artery, through a special fine tube called a catheter and then taking X-ray images immediately afterwards, detailed images of arteries and veins can be produced. The whole procedure lasts approximately 1 hour.

Why do I need an angiogram?

The doctors in charge of your care feel that there may be a problem with part of your circulation. Other tests such as ultrasound can provide useful information, but an angiogram will provide more detail on the pattern of disease.

Who will be doing the angiogram?

A specially trained doctor called an Interventional Radiologist will perform the angiogram. The Radiologists have special expertise in using X-ray equipment. They look at the images while carrying out the procedure and interpret the images produced. The Radiologists work very closely with the other Consultants involved in your care.

Where will the angiogram take place?

The angiogram will be performed in a department called the Interventional Radiology Unit (IRU). This is a sterile environment equipped with the special X-ray machines, which allow these specialised procedures to be performed.

What do I need to do before the angiogram?

If you are being admitted as an inpatient to a surgical ward or being treated as an outpatient, on the morning of the procedure please follow these instructions:

Diet

You can eat and drink normally.

Medication

Most patients may continue to take their usual medication. If you have diabetes and are insulin dependent, take your insulin and food as usual. If you take tablets for your diabetes please continue to take these.

If you take anticoagulants (commonly called blood thinners), then you may need to stop these. The nurse will review your medication at pre-assessment clinic and will advise you on when and how to stop taking these medicines.

If you are unsure about the instructions provided, or you do not believe you have been given any, please contact IRU directly ahead of the procedure.

Please bring all your medications with you i.e. tablets, inhalers.

Allergies/Medical Conditions

You need to tell the IRU team if you suffer from asthma, hay fever, diabetes, heart or kidney problems. The nurse will ask you about these at pre-assessment clinic.

You will be asked about any known allergies i.e. drugs, foods and/or other, if you are allergic to X-ray dye (contrast medium), iodine or latex, please contact the IRU in advance as special precautions may be needed.

What happens on the day of the angiogram?

You will either be admitted to one of the surgical wards as an inpatient for the procedure, with the possibility of an overnight stay or the Radiologist will have decided that the procedure can be performed as an outpatient. If you can have the procedure as an outpatient you will be admitted directly to IRU. However, even as an outpatient, a period of observation will be required and you will be able to return home later the same day.

What does the procedure involve?

When it is time for you to have your angiogram you will be asked by the nurse looking after you to put on a gown. The nurse will then escort you into the IRU.

Once you arrive in the IRU, you will be seen by the Radiologist who will be performing the angiogram. You will be asked to sign a consent form. The Radiologist will do this.

You will lie on the X-ray table, usually flat on your back. The Radiologist will keep everything as sterile as possible and will be wearing theatre gown and operating gloves.

The Radiologist will clean the area of skin with some antiseptic solution; most of your body will be covered by theatre drapes. The Radiologist will inject a local anaesthetic into the skin in the region of the groin to numb the area. After this, the procedure should be virtually painless.

A long fine tube (catheter) is then inserted into the artery in the region of the groin, using X-rays to help; the radiologist manipulates the catheter into the correct position. You will not feel the catheter being moved around your body.

X-ray images (pictures) are taken whilst the dye (X-ray contrast) is injected down the catheter into the blood vessels.

Some injections may cause hot flushing for a few seconds, and an occasional urge to pass water. When the test is completed the catheter is removed and pressure will be applied to the groin for about ten minutes to minimise any bruising.

There will be a nurse or another member of clinical staff, standing next to you and looking after you throughout the procedure.

What are the risks/complications?

Angiography is a very safe procedure, but there are some risks and complications that can arise.

Bruising (haematoma) may occur around the puncture site where the catheter was inserted; a small bruise is common but it normally disappears over several days. There is a chance that this bruise may become very large and uncomfortable, but this is rare. If a large bruise does develop, there is a risk of it getting infected, and this would then require treatment with antibiotics. Surgical intervention may be required to drain the haematoma.

Very rarely the artery can be damaged and this may require surgical repair or another radiological procedure.

These risks and complications will be explained and discussed with you in more detail, when the radiologist/doctor asks you to sign the consent form before the procedure.

What happens afterwards?

You will be transferred to a bed and asked to lie flat for a few hours. If you are an outpatient you will require somebody to drive you home. You will not be allowed to drive yourself.

If you are an inpatient you will be escorted back to the ward.

What should I expect afterwards?

- Take it easy for 24-48 hours
- Drink plenty of fluids and eat normally.
- Seek medical advice if you are worried about anything.

Do not:

- Operate machinery for 48 hours.
- Do any strenuous lifting or exercise for one week.
- Drive for 48 hours. You must make sure your groin feels completely comfortable before you drive.

What do I do if the puncture site starts bleeding after discharge?

In the unlikely event of bleeding, lie down and press the site hard, and tell your relative/carer to telephone your GP's surgery or the ward for advice immediately.

Points of contact

If you have any queries to the procedure outlined in this leaflet and the implications for you or your relatives/carers please contact:

Interventional Radiologist

Interventional Radiology Unit
Norfolk and Norwich University Hospitals NHS Foundation Trust
Colney lane
Norwich
NR4 7UY

Tel: 01603 286690

Interventional Radiologists: (Secretaries): 01603286330

Dr M Crawford, Dr M Lewis and Dr K Tan, Dr T Ali and Dr A Belkiri

Points of contact:

Vascular Specialist Nurses

Norfolk & Norwich University Hospitals NHS Foundation Trust
Tel: 01603 287844 or 01603 647971 (Monday to Friday 9am-5pm)

Further information and support:

Vascular Surgeons (Secretaries):

Miss F J Meyer	01603 287136
Mr M P Armon	01603 287552
Mr DR Morrow	01603 286442
Mr R E Brightwell	01603 287394
Mr M S Delbridge	01603 286434
Mr P C Bennett	01603 286263
Mr W Al-Jundi	01603 287552
Mr P W Stather	01603 647289

NHS 111 service out of hour's advice

Vascular Surgical Society of Great Britain and Ireland

Tel: 020 7205 7150

Web address: www.vascularsociety.org.uk

Circulation Foundation

Tel: 020 7205 7151

Web address: www.circulationfoundation.org.uk

For help giving up smoking

Contact your local NHS Stop Smoking Service Smoke free Norfolk on 0800 08 54113 or your GP surgery, pharmacy for local support.

The NHS National Stop Smoking Helpline and website are a source of advice, help and support visit www.smokefree.nhs.uk.

Further information and support:

Royal College of Radiologists

Tel: 020 7636 4432

Web address: www.rcr.ac.uk

Society of Interventional Radiology (SIR)

Web address: www.sirweb.org

This sheet describes a radiology procedure; it may help you understand it better. If you have any questions please ask your doctor.

