

Oxford Kidney Unit

Having a renal angiogram under a local anaesthetic

Information for patients



What is a renal angiogram?

A renal angiogram is an X-ray test that uses an injection of special dye (X-ray contrast) and camera to take pictures of the vessels which supply blood to your kidneys. This is carried out in the Radiology department.

Why do I need a renal angiogram?

This is done to look at the blood vessels (renal arteries) supplying your kidneys, to see if they are narrowed or blocked. Narrowed or blocked renal arteries can cause high blood pressure or a reduction in your kidney function, due to a reduced blood supply.

Are there any risks in having a renal angiogram?

A renal angiogram is an important investigation and is carried out in a large number of people around the world. The test is very safe and the risk of serious complications is less than 1 in 100 people.

Side effects may include:

- some soreness at the injection site for a few days after the procedure. You can take paracetamol as instructed on the packet to help with the soreness.
- bruising around the groin (where the injection is given). This happens in around 1 in 100 procedures.
- damage or blockage to the artery in the leg where the catheter is inserted, which is rare. If this occurs it can usually be treated with an operation or a procedure in Radiology.
- serious bleeding from the artery, requiring a blood transfusion or surgery. This is rare (1 in 100 people).
- severe allergy to the X-ray contrast (the dye injected into the artery). This occurs very rarely (1 in 1,000 people and can usually be treated with medications).
- a reduction in kidney function (around 5 in every 100 people). This usually gets better without any treatment. Rarely, long term kidney damage can occur, which needs treatment with dialysis. Your kidney doctor will discuss this risk with you.

What do I need to do before my renal angiogram?

If you are or may be pregnant, please tell your kidney doctor. The renal angiogram may need to be postponed.

If you have had a previous reaction to X-ray contrast, please tell your kidney doctor.

If you are taking an anticoagulant (blood thinning medication) you may need to stop these before the angiogram:

Anticoagulant	How many days to stop it before your angiogram
Warfarin	5 days
Dabigatran, apixaban, rivaroxaban	24 hours
Clopidogrel	7 days (but check with your GP)
Aspirin	You do not need to stop this

Other medication that needs to be stopped before the angiogram:

Metformin hydrochloride	Do not take for 48 hours before the procedure and for 48 hours after the procedure.
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If you are on medication for diabetes, you will be given a separate leaflet about fasting before your angiogram.

You will be asked to have a blood test to check your blood clotting level, no more than two weeks before your appointment. This is to make sure your blood clotting levels are safe for the renal angiogram to go ahead. If you are on warfarin, we will take a blood test for your INR level on the day of the appointment.

What will happen on the day of the angiogram?

On the day of the angiogram, please have nothing to eat for 6 hours before your appointment time and nothing to drink for 2 hours before your procedure.

An X-ray doctor (radiologist) will explain the angiogram to you and you will be asked to sign a consent form. Your blood pressure, pulse and temperature will be checked and you will be asked to change into a hospital gown.

The angiogram is carried out in a special room called the 'interventional suite'. You will be asked to lie down during the procedure.

After cleaning the skin over your groin, the radiologist will inject a small amount of local anaesthetic to numb the area. The radiologist will insert a small plastic tube (called a catheter) into the artery in your groin.

X-ray contrast (a special dye which shows up on X-rays) will then be injected through the catheter and pictures will be taken of the blood vessels supplying your kidneys. You may feel a warm sensation throughout your body as the contrast is injected.

When all the X-rays have been taken, the catheter will be removed and firm pressure applied to the area for 5 minutes to help prevent any bleeding. A small plaster will be placed over the puncture site (where the catheter was put in). The procedure usually takes between 30 minutes to 1 hour.

We may be able to offer you some sedation to help you feel relaxed during the procedure. Please speak to your kidney doctor if you would like to know more about this. If you have sedation you will need to wait 24 hours before driving, and will need to be sure you feel capable of driving when you do.

What happens after the angiogram?

After the angiogram you will need to remain flat in bed for several hours. The radiologist will let you know how long you need to remain flat in bed when they ask for your consent. Lying flat will help to reduce the risk of bleeding from the puncture site. During this time your blood pressure and pulse will be monitored.

You should not drive for 24 hours after the procedure, as this can put pressure on the puncture site. You can bring a friend or relative to keep you company and to drive you home, although they won't be able to be there during the angiogram. If you do not have a friend or relative who can collect you, please contact the transport number on your appointment letter.

If you have had sedation, you will need someone responsible to stay with you for 24 hours afterwards.

What happens after I go home?

You should avoid lifting anything heavy for at least 24 hours after the procedure, to avoid causing bleeding from the puncture site. Your kidney doctor will discuss the results of the renal angiogram at your next clinic appointment.

When should I seek urgent help?

If you experience any of the following symptoms you should contact 111 (dial 111 from any landline or mobile) for urgent help:

- Your leg where the angiogram has taken place looks or feels different to your other leg, for example, it looks pale or feels cold.
- Bleeding from the puncture site that doesn't stop after applying pressure for a few minutes.
- Skin redness, swelling and heat at the injection site.
- Severe pain in your leg.

Where can I get further information?

Please speak to your kidney doctor if you have any further questions. Their telephone number will be on your appointment letter.

Oxford Kidney Unit

Website: www.ouh.nhs.uk/oku/

Our website has lots more patient information available.

NHS Choices

Website: www.nhs.uk/Conditions/Angiography/Pages/Introduction.aspx

British Society of Interventional Radiology

Website: www.bsir.org/patients/angiography/

If you have a specific requirement, need an interpreter,
a document in Easy Read, another language, large print,
Braille or audio version, please call **01865 221 473**
or email **PALS@ouh.nhs.uk**

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