

Patient Information

## Radiology Department

# Angiography information leaflet

### Introduction

You have been advised by your hospital consultant that you need to have an Angiogram and you have been referred to the Radiology department to have this procedure. This information leaflet has been produced to give you general information and is intended to answer most of your questions.

This is not intended to replace the discussion between you and your consultant, but may act as a starting point for discussion. If after reading this information you still have concerns or require further explanation, please contact the Radiology team on the telephone number

**02476 967115.**

Please inform us on the above number us prior to your procedure if:

- You have allergies to contrast (X-ray dye)
- You are, or might be, pregnant
- You weigh more than 200kg (31 stone)

We strongly advise that you leave any valuable possessions at home and remember to bring all medications including inhalers that you are taking with you to the X-Ray department.

Please read this leaflet carefully to ensure you are successfully prepared for the procedure.



## Patient Information

### **What is an Angiogram?**

An angiogram is a minimally invasive procedure used to obtain images of blood vessels. This is achieved by inserting a catheter (a small plastic tube) into an artery, usually in your groin. A special dye, (X-ray contrast) is injected into the tube and X-ray pictures are taken as the dye passes along the arteries.

The examination will be performed by a radiologist (a specialist X-ray doctor) who will be assisted by a radiographer and a radiology nurse. It is not always easy to predict how long the procedure will take. As a guide, expect to be in the Radiology Department for at least one hour.

As the radiologist undertakes the angiogram, they may feel it is appropriate and possible to proceed on to an angioplasty.

### **What is Angioplasty?**

Angioplasty is a procedure in which a small balloon on the end of a catheter is inflated to re-open a narrowed or blocked artery. This technique means that surgery may be avoided in many cases.

In order to perform the angioplasty a slightly larger catheter is used, which slightly increases the risk of bleeding afterwards.

You may feel the doctor changing and moving catheters in and out of your groin artery. Although this is sometimes slightly uncomfortable, it should not be painful; however, momentary pressure maybe felt while the balloon is inflated. Sometimes, it will be necessary to insert a special device called a stent to keep the artery open. This is a small metal cage that expands in your artery to keep the vessel open and allow more blood to flow through. If the doctor feels it is appropriate proceed on to an angioplasty or may arrange this at a later date. If this decision is made, the doctor will discuss this with you during the procedure.

### **Referral and Consent**

Prior to the examination the radiologist, who will be performing the procedure, will discuss the procedure with you and if you do not want it carried out, you are within your rights to decide against it.

## Patient Information

If the Radiologist feels that your condition has changed or that your symptoms do not indicate such a procedure is necessary then they will explain this to you. They will communicate their reasons with the referring clinician and ask that you return to your referring clinician for review. At all times the Radiologist and referring clinician will be acting in your best interests.

### Before the test

It is important that you understand the test and its implications, so if you have any questions, please ask the radiologist. We will want you to be as relaxed as possible for the procedure.

Please tell the radiologist or nurse if:

- You have had any allergies or bad reactions to drugs or other tests
- You have asthma, hay fever, diabetes, or any heart or kidney problems.
- You are diabetic.

If you are taking any blood thinning medication, such as Warfarin, Dabigatran, Rovaroxaban, TinZaparin or Clopidogrel this may need to be stopped five days prior to the procedure. This is not always possible or you may be required to take additional short-acting blood thinners for a few days before. If you are at home and taking any of these medications and have not received instructions to stop them please contact the Radiology Department on 02476 967115

### Preparation

- There is no need for you to stop eating before the procedure but it is important that you drink plenty, **we advise one pint (500mls) of water or squash above your normal fluid intake.**
  - o **Important information for patients on a fluid restricted allowance:** If you are under the care of a renal specialist and or have to follow a fluid restricted diet, you should include this preparation as part of your fluid allowance.
- If you are taking Clopidogrel and Aspirin therapy, and you have **NOT** had a coronary stent fitted in the preceding 12 months, Aspirin should

## Patient Information

be stopped 5 days prior to the procedure. The Aspirin will need restarting after the procedure.

- If you are taking **Metformin** please inform the ward staff as this **may** have to be stopped for 48 hours after the procedure.
- You will have had some blood tests to check your blood clotting ability and kidney function.
- Some pain killers (Non Steroid Anti-Inflammatory Drugs) **may** have to be stopped on the day of the examination for 24 hours, please discuss this with the nurses on the ward. Paracetamol may be used instead
- The Fluoroscopy department will coordinate and schedule a time for your procedure to take place. You will be brought down to the department on your bed or in a wheelchair
- The procedure will be explained to you by the Radiologist and you will be able to ask any further questions that you may have.

### During your examination

The procedure will be again explained to you by the radiologist and you will be able to ask any further questions that you may have. You will be taken into the X-ray room where you will be asked to get onto the X-ray table lying on your back

The radiologist (an X-ray doctor) will inject a local anaesthetic into the skin of your groin to freeze the area. You may still feel some pressure sensation, but if you feel any pain during the procedure inform the radiologist. You will be asked to lay as still as you can.

The catheter is then inserted into the artery at the groin, and using X-rays to help, the radiologist moves the catheter into the correct position. X-ray pictures are taken whilst the dye is injected down the catheter into the arteries. Sometimes the injection may cause a hot feeling for a short while or the feeling that you have passed urine.

At the end of the procedure, the catheter is withdrawn and the radiologist then presses firmly on the skin entry point for several minutes, to prevent any bleeding. Alternatively, the radiologist may insert a small stitch (arterial closure device) into the puncture site to prevent bleeding.

### Risks of the Procedure

As with any procedure or operation, complications are possible. **The possibility of these complications happening to you will be discussed with you before the procedure takes place.**

- Major complications following angioplasty are uncommon, however inserting the catheter can lead to injury or tearing of the artery resulting in blockage of the artery. This may be either at the site of Angioplasty or lower down the circulation towards the foot. Dealing with this may require emergency surgery. In extremely rare circumstances this may eventually lead to amputation. The balloon used during Angioplasty also poses a risk of emboli (blood clots) forming around it or dislodging a clot that is already there. These may travel along the artery and block a smaller blood vessel further down the leg. The doctor or nurse will discuss these with you when you sign the consent form.
- Rarely the contrast medium used for angiograms can cause deterioration in kidney function, which is usually only temporary but occasionally can be more long term. This is of particular concern for people who already have impaired kidney function. You will have a blood test to assess your kidney function prior to the procedure.
- Rarely, allergic reactions can occur with X-ray contrast, only very rarely requiring any treatment. You will be asked about allergies by the radiologist at the time

Despite these possible complications, the procedure is normally very safe. At all times during and after the procedure the staff will be monitoring your responses to this treatment in order to lessen the effects of any complications.

X-rays are a type of radiation. We are all exposed to natural background radiation every day of our lives; this comes from the sun, food we eat, and the ground. Exposure to X-rays carries a small risk, but your doctor feels that this risk is outweighed by the benefits of having the test. We will take all safeguards to minimise the amount of X-rays you receive

## Patient Information

### After your examination

If you have any problems after the procedure please speak to the radiologist or nurse looking after you. The nurses will check your groin, blood pressure and feet regularly.

- You will be taken back to the ward for observations for 4 hours following the procedure. If a stitch was used to close the artery then you must lay flat for the first 45 minutes. You may then sit up after 90 minutes and following this you will be allowed to move around gently.
- If a stitch was not used then you will be asked to remain lying flat for 4 hours so your groin does not start to bleed. It is important that you do not try to sit up or get out of bed. You can then sit up gradually after 4 hours.
- You should eat and drink normally and can sit up gradually after 4 hours. **Please ensure you have drunk at least 1 pint (1/2 litre) of water on the ward within the 2 hours following the procedure.**
- **Important information for patients with renal impairment:** You will be kept on intravenous fluids for the remainder of the six hours. You should have a further kidney function test before you are discharged home from the ward. You may require special monitoring and referral to a renal specialist if your kidney function has decreased by 10%.

If you have any problems after the procedure please speak to staff on the ward. A report will be generated by the Radiologist to inform the Vascular Team

### Safety

**Patients aged 12 – 55 years could you be pregnant?** The risks of radiation are higher for the unborn child so you will be asked to confirm that you are not pregnant before the examination can proceed.

### Other Sources of Information:

For general information about radiology departments visit the Royal College of Radiologists website: [www.goingfora.com](http://www.goingfora.com)

## Patient Information

For information about the effects of X-rays read the NRPB publication: “X-rays how safe are they?” on the Health Protection Agency website:

[www.hpa.org.uk](http://www.hpa.org.uk)

Please note that the views expressed in these websites do not necessarily reflect the views of UHCW NHS Trust or the NHS.

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact the number on your appointment letter and we will do our best to meet your needs.

The trust operates a smoke free policy.

<b>Document History</b>	
Department:	Radiology
Contact:	27115
Updated:	February 2020
Review:	February 2022
Version:	8.2
Reference:	HIC/LFT/072/06