

Information for Patients undergoing Angiography

Introduction

This leaflet has been designed to give you information about the procedure known as angiography (angiogram) that you are due to have in the near future. It is not meant to replace informed discussion between you and your doctor, but is aimed at making your understanding clearer.

If the angiogram is being done as a pre-planned procedure, then you should have plenty of time to discuss the situation with your Consultant and the Radiologist who will be carrying out the angiogram.

If you need the angiogram as an emergency, then there may be less time for discussion, but none the less **you should have had sufficient explanation before you sign the consent form.**

What is an angiogram?

An angiogram is a special x-ray examination of blood vessels. 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 plastic tube called a catheter and taking x-rays immediately afterwards, detailed images of arteries and veins can be produced.

Why do I need an angiogram?

Your Consultant feels that there may be a problem with part of your circulation. Other tests that you might have had done, such as Doppler Ultrasound, can provide useful information, but it is felt that in your case the best way of obtaining the amount of detail required is by an angiogram.

Who has made the decision?

The Consultant in charge of your case and the Radiologist carrying out the angiogram will have discussed the situation and feel that this is the next step. However, you will also have the opportunity for your opinion to be taken into account and if, after discussion with your Consultant, you do not want the procedure carried out, then you can decide against it.

Who will be doing the angiogram?

A specially trained doctor called a Radiologist. Radiologists have special expertise in using x-ray equipment and interpreting the images produced. The Radiologist needs to look at these images while carrying out the procedure.

Where will the procedure take place?

In the DSA (Digitally Subtracted Angiography) Room, in the Radiology Department, in the South Building.

How do I prepare for an angiogram?

You need to be an in-patient and arrangements will be made by your Consultant's Secretary for your stay in the hospital.

You will probably be asked not to eat for 4 to 6 hours beforehand, though you may be told that you can drink some water (both depends on the procedure you are having carried out).

You will need to inform the nursing staff in the x-ray department of the following:

1. If you are diabetic and taking metformin.
2. If you suffer from any allergies or have reacted to contrast medium before.
3. If you are asthmatic.
4. If you are taking heparin or warfarin.

Please ring the department number below and ask to speak to one of the nursing staff.

On your arrival

You will be admitted to the hospital and taken up to your room. A member of the nursing staff will take a full medical history from you and arrange for any blood tests that are necessary to be carried out.

You will be asked to put on a hospital gown and a pair of disposable pants.

At the appropriate time you will be taken down to the x-ray department, either in a wheel chair or in your bed, escorted by a nurse.

What actually happens during the angiogram?

A member of the x-ray nursing staff will check your details before the angiogram starts.

You will lie on the X-ray table generally flat on your back. As the procedure is generally carried out using the big artery in the groin, you may be given a shave in this area. You may need to have a needle put into a vein in your arm, so the Radiologist can give you sedation or painkillers if they are required. Once in place, this will not give any pain. You will have a blood pressure cuff attached to your arm and a probe attached to your finger, so that your observations can be taken during the procedure. You may also be given oxygen through small tubes in your nose.

Nursing staff will be present to observe you during the procedure and also to assist the Radiologist.

A Radiographer will be present to assist the Radiologist with the technical side of the procedure.

Throughout the procedure all equipment will be kept sterile. The Radiologist and the Nurse assisting will wear a theatre gown and sterile operating gloves. The skin around the point of insertion, probably the groin, will be cleaned with antiseptic (this is very cold) and the rest of your body will be covered with a theatre drape. At all times the staff will tell you what is happening.

The skin and deeper tissues over the artery will be anaesthetised with local anaesthetic and then a needle will be inserted into the artery. Once the Radiologist is satisfied that this is correctly positioned, a guide wire is passed through the needle and into the artery. The needle is withdrawn allowing the fine, plastic tube (catheter) to be placed over the wire and into the artery.

The Radiologist uses the x-ray equipment to make sure that the catheter and the wire are moved into the right position and then the wire is withdrawn. The special dye (contrast medium) is then injected through the catheter and x-rays taken.

Once the Radiologist is satisfied that the x-rays show all the information required, the catheter will be removed and the Radiologist will then press firmly on the skin entry point for about 10 minutes, to prevent any bleeding. A dressing will be placed on the puncture site.

Will it hurt?

When the local anaesthetic is injected, it will sting to start with, but this will soon wear off and the skin and deeper tissues should then feel numb. After this, the procedure should not be painful. However, if at any time you feel uncomfortable, please tell the nurse looking after you.

As the dye (contrast medium) passes around your body, you may get a warm feeling, which some people find a little unpleasant. However, this soon passes off and should not concern you.

How long will it take?

Every patient's situation is different and it is not always easy to predict how complex or how straightforward the procedure will be. Some angiograms, for example those looking at the large arteries in the legs, are generally straightforward and do not take very long, perhaps half an hour. Other angiograms looking at much smaller vessels may be more complex and take rather longer, perhaps over an hour. As a guide, expect to be in the x-ray department for about 1½ hours.

What happens afterwards?

You will be transferred onto a trolley by the staff in the x-ray department and taken back to your room, escorted by a nurse. You will need to keep your leg straight for up to 12 hours. You will be informed for how long at the time of the procedure. You will also need to be on bed rest for the same length of time, but you will be able to sit at an angle of about 30° so you will be able to have a drink and something to eat.

Your nurse will carry out routine observations such as pulse and blood pressure, to make sure that there are no problems. The nurse will also check the puncture site for any signs of bleeding. You will also be given instructions to press on the dressing covering the puncture site, when you laugh, cough, sneeze or anything that puts pressure on your lower abdomen. This is to prevent further bleeding.

You may be allowed home on the same day, or kept in hospital overnight.

Are there any risks or complications?

Angiography is a very safe procedure, but there are some risks and complications that can arise. There may occasionally be a small bruise, called a haematoma, around the site where the needle has been inserted and this is quite normal. There is a chance that the bruise may become large and uncomfortable, but this does not

happen very often. If a large bruise develops, there is the risk of it getting infected and this would then require treatment with antibiotics. Sometimes, a large bruise is treated by having a small operation to drain it. The Radiologist carrying out your angiogram will be able to tell you how often problems with bruises occur and how they are treated. Very rarely, some damage can be caused to the artery by the catheter and this may need to be treated by surgery or another radiological procedure. Despite these possible complications, the procedure is normally very safe and is carried out with no significant side effects at all.

Finally.....

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you.

Make sure you are satisfied that you have received enough information about the procedure, before you sign the consent form.

Angiography is considered a very safe procedure, designed to obtain sufficient information about your circulation to allow you and your doctors to make an informed decision about your future treatment. There are some slight risks and possible complications involved and although it is difficult to say exactly how often these occur, they are generally minor and do not happen very often.

JUST A REMINDER:

YOUR PREPARATION SHOULD INCLUDE A CALL TO THE NURSING STAFF, IF YOU ARE DIABETIC AND TAKING METFORMIN, HAVE AN ALLERGY OR HAVE REACTED TO CONTRAST MEDIUM IN THE PAST, HAVE ASTHMA OR ARE TAKING HEPARIN OR WARFARIN – THIS INFORMATION IS VERY IMPORTANT TO US.

We hope that this leaflet has been of help to you, but if you need any further information, please do not hesitate to contact one of the nursing staff, on the department number, on the front page.