

Information for Patients and Carers

Cerebral Angiogram

Decorative graphic at the bottom of the page consisting of three horizontal, wavy bands of blue. The top band is a light blue, the middle is a medium blue, and the bottom is a dark blue.

What is a cerebral angiogram?

A cerebral angiogram is a diagnostic test which examines the blood vessels in the brain and neck using X-rays and a dye which is injected through a plastic tube called a catheter which is inserted into the artery in the groin.

Please inform us before you attend:

- If you are or think you may be pregnant
- If you are breastfeeding/chest feeding
- If you have any medical conditions such as; asthma, diabetes, clotting problems, kidney problems
- If you have ever had an allergic reaction to iodine

If you require an interpreter, please inform us as soon as you receive your appointment letter and we will arrange an official interpreter for you.

Are there any special preparations required before the procedure?

You are requested not to eat from 12 midnight prior to your procedure. However, you may drink water until 6am.

Can I bring a relative or friend with me?

Anyone can accompany you to the hospital, but they will usually not be allowed into the room when you have your procedure.

Please note that we do not have childcare facilities; if you need to bring your children with you, please bring along an adult who can supervise them while your procedure is being performed.

What happens when I arrive at the department?

On the day of the procedure, you will be asked to arrive, as instructed by your letter, to the Lancashire Elective Surgical Unit (LESU), this is

located on the ground floor, close to the Rosemere Unit and adjacent to the MRI department.

You will be asked to change into a hospital gown and may be asked to remove your underwear. This will depend on whether the procedure is to be carried out through the artery in your groin or wrist. Please leave any jewellery at home if you can.

There may be emergency cases that take clinical priority on the day that you are admitted. Should this occur, we will keep you informed and perform your procedure as early in the day as possible. In cases where we are unable to proceed, we may ask you to stay overnight so that we can perform the procedure the following day. For this reason, we advise that you bring some overnight clothes and any medications you take, otherwise a new date will need to be scheduled.

What happens during the procedure?



The procedure will be performed in the Neuro X-ray Suite at Royal Preston Hospital by a specialist doctor called a neuro interventional radiologist.

The other staff involved in your care during the procedure are; an anaesthetist, operating department practitioner, radiographers and nurses.

Consent for the procedure will be taken by one of the neuro interventional radiologists, providing the opportunity for you to ask any questions you may have about the procedure.

The procedure normally takes approximately 1 hour to perform. You will be taken into the Neuro Intervention Suite which contains the specialist X-ray equipment.

Monitoring equipment will be attached to your chest, arm and finger to check your heart rate, blood pressure and oxygen levels. You may also be given oxygen during the procedure.

The anaesthetist will insert a needle in one of the veins on the back of your hand, through which intravenous fluids can be given and/or a light sedative to help you relax throughout the procedure. This does not put you to sleep like a general anaesthetic.

Once the team are ready a checklist will be read out to confirm your details.

The skin around your groin or wrist will then be cleaned and local anaesthetic will be injected. This will sting for a short time and then the area will become numb so you should not be able to feel anything. A long plastic tube called a catheter will be inserted into the blood vessel in the groin or wrist and is then navigated to the main blood vessels which supply blood to the neck and brain. Once in position a dye containing iodine will be injected through the catheter and a series of X-rays will be taken. The X-ray machines will move around you but will not touch you.

During the injection of dye, you may experience a warm feeling. Some people see flashing lights or complain of hearing buzzing noises and/or

experience a strange metallic taste. All of these sensations are normal and should pass very quickly.

During the procedure it is important that you stay as still as possible in order for us to obtain the best possible X-ray images of your blood vessels.

At the end of the procedure, we need to use a device to seal the artery. If the procedure has been carried out via the groin; a device will be inserted into the artery or pressure may be applied. If the procedure has been carried out via the wrist; a band containing air will be placed round your wrist, air will be removed over the next few hours whilst you are on LESU.

What happens after the procedure?

You will be taken to LESU on a bed or chair where you will stay for a few hours. If the groin artery has been used you will have to remain on the bed for a minimum of 4 hours, you may have the head of your bed elevated slightly for comfort, but you must keep your legs straight to prevent additional pressure on your groin. If the wrist artery has been used, you can sit in a chair and can move about the unit if required. You may eat and drink as normal.

The nurses will carry out regular observations and ask questions to assess that you are aware of your surroundings. Your blood pressure and pulse will also be monitored. The nurses will also assess the puncture site for any signs of bleeding, excessive bruising or swelling. It is normal to have some minor bruising.

Once you recover from the procedure you will usually be allowed to leave after a minimum of 4 hours. Should you experience any side effects and need to be more closely monitored you may be kept overnight for observation.

Please arrange for a relative or friend to collect you from the hospital as we do not recommend that you drive or use public transport.

A responsible adult must stay with you until the following morning, and you must have access to a telephone.

Minimise excessive physical activity for 48 hours. Avoid tasks that put additional pressure on your groin/wrist. This includes sexual activity, driving, unnecessary stair climbing, long walks, lifting heavy objects etc. After 48 hours you may resume normal activity.

Care of the puncture site

Check the puncture site for swelling or hardness. A small lump and bruising at the site are common and normal. You may experience some minor discomfort, but you should be able to restart normal activities within 48 hours.

If the lump grows in size or you notice numbness, tingling, redness, warmth or pain down your leg you must visit your local emergency department.

If the puncture site bleeds heavily, this is very rare, please apply firm pressure just above the site and telephone 999 for an ambulance.

It is not advisable to have a hot bath or shower for 24 hours after the angiogram, a warm tepid shower is acceptable.

Always keep the puncture site clean and dry, avoid swimming until it is healed.

If the groin artery was used, you will be given a patient information card for the closure device which you should carry with you in your purse or wallet for the next 90 days. The closure device is MRI compatible.

Are there any risks?

A cerebral angiogram is a minimally invasive procedure; side effects or complications can occur. We will take every precaution to minimise these risks.

The most common complication is that you may have bruising to the groin or wrist where the catheter was inserted. This is usually a small bruise which can vary with each individual.

Some people complain of a headache for a few hours after the procedure. A mild painkiller, rest and drinking plenty of water will help. Headaches may occasionally last a few days. You may find that you are unable to see clearly after the procedure. Some people complain of blurred vision which should be temporary and soon settle. Occasionally people develop an allergic reaction to the dye used in the procedure, but this is rare.

Procedures involving the blood vessels of the brain carry a small risk of stroke. This can range from a minor problem which gets better over time to a severe disability involving movement, balance, speech, or vision.

X-rays are used throughout the procedure and although there are risks involved with radiation, modern equipment and techniques are designed to keep the dose to a minimum. We use the smallest dose possible, in line with national regulations to provide as much information as possible for the consultant.

When will I receive my results?

The neuro interventional radiologist or specialist neurovascular nurse will discuss the provisional angiogram results with you after the procedure. However, your angiogram results will then be discussed at the neurovascular multi-disciplinary team meeting, following which we will write to both you and your GP with the results.

Contact details

Should you require any further advice or information please contact us on the following telephone numbers:

Appointments: **01772 523459**

LESU: **01772 532518**

Specialist nurse: **01772 528422**

Ward 2A: **01772 522217**

Ward 2B: **01772 522713**

Ward 2C: **01772 528162**

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.patient.co.uk

www.accessable.co.uk

<https://www.gov.uk/government/publications/ionising-radiation-from-medical-imaging-examinations-safety-advice/exposure-to-ionising-radiation-from-medical-imaging-safety-advice>

<https://www.nhs.uk/conditions/angiography/>

www.brainandspine.org.uk/angiogram-brain

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www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

Lancashire Teaching Hospitals is a smoke-free site. Smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking this will include Nicotine Replacement Therapy to help manage your symptoms of withdrawal and the opportunity to speak to a nurse or advisor from the specialist Tobacco and Alcohol Care Team.

If you want to stop smoking, you can also contact Smokefree Lancashire on Freephone **08081962638**

Please ask a member of staff if you would like help in understanding this information.

This information can be made available in large print, audio, Braille and in other languages.

Our patient information group review our leaflets regularly, if you feel you would like to feedback on this information or to join our reading group please contact us on email address:

patientexperienceandinvolve@LTHTR.nhs.uk

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