

Having a cerebral angiogram

This leaflet has been provided to help answer some of the questions you or those who care for you may have. It is not meant to replace the consultation between you and your medical team, but aims to help you understand more about what you will experience.

A cerebral angiogram is a special X-ray examination of the blood vessels supplying the brain. Contrast medium (a dye containing iodine which shows up on X-rays) is injected into the blood vessels in the neck via a thin plastic tube (catheter), introduced through the artery in your groin. This allows detailed pictures of the blood vessels which supply the brain to be seen using X-rays.

Your doctor has recommended that you have a cerebral angiogram. The reason for this will depend upon your particular condition, typically:

- A) To diagnose or exclude a vascular abnormality in your neck, head or brain.
 - The Neuroradiologist (specialist doctor) performing the angiogram will explain the procedure and answer any questions you may have before obtaining your formal written consent.
- B) As part of the Gamma Knife treatment process for a vascular abnormality in your head or brain.
 - The Neurosurgeon or Radiotherapist responsible for your Gamma Knife treatment will explain the entire procedure (including the angiogram) and answer any questions you may have before obtaining your formal written consent for the entire procedure.

What are the risks and benefits of having a cerebral angiogram?

The benefit of a cerebral angiogram is that it is a relatively safe procedure, which gives your doctors detailed information about the blood vessels to or within your brain.

However, there are risks and complications that can arise, the most frequent include:

- Bleeding or bruising around the groin puncture site (0.5% or one in 200 patients)
- Damage to a blood vessel (0.2% or one in 500 patients)
- Reaction to the contrast medium (very rare and occurs in 0.0025% or one in 40,000 patients)
- A stroke is the most serious complication, with a risk of less than 0.5% (one in 200 patients), but it can be of any severity and in exceptional cases, it may be life threatening.

The use of X-rays to guide the doctor during the procedure helps to minimise these risk factors.

Is there anything I need to do before my cerebral angiogram?

You will need to have a routine blood test before you have your cerebral angiogram. This will either be done in the pre-admission assessment clinic before you are admitted to hospital, or on admission to the ward.

- If you take blood-thinning medications (e.g. warfarin, plavix, aspirin or clopidogrel) or metformin (a drug for diabetes) please contact your Consultant for advice before you come into hospital, as you may need to stop taking the drug(s) for a few days before your appointment.
- Please also let us know if you have any allergies, especially to iodine (which is in the contrast medium used for the test) or to any other medications, before you come into hospital.
- You should otherwise take all your usual drugs and medicines as normal. Please bring all your current medication (including inhalers) with you to the hospital.
- If you are pregnant or think you may be pregnant, please tell your ward nurse, doctor and Angiography staff.
- Please do not have anything to eat or drink for FOUR hours before your appointment time.
- The procedure is carried out through an artery (blood vessel) in the groin, requiring this area to be shaved prior to the procedure.

Please contact us as soon as possible if you may not be able to attend for this procedure. We can then agree a new appointment date and time with you. You will find the appropriate telephone number on your appointment letter.

You are advised to travel, if possible, by public transport or taxi when visiting our hospital. Car parking is severely limited and you may find it very difficult to find a place to park near the hospital.

The nearest tube stations for Bupa Cromwell Hospital are Earls Court, Gloucester Road (Piccadilly and District Lines) and High Street Kensington (Circle and District Lines). The number 74 bus stops outside the hospital.

Your cerebral angiogram

You will be admitted to the hospital the day before or early on the morning of your appointment. When you arrive on the ward, you will be admitted by the nursing staff and will have some blood taken for routine testing if not already taken. You will be changed into a hospital gown and a small plastic cannula (tube) may be inserted into your arm so that pain relief or other medication can be given if necessary. When you arrive in the Angiography unit, staff will again check your details and may need to examine you before taking you into the X-ray room. The Neuroradiologist performing your angiogram will go through the procedure in detail.

The Angiography room staff will ask you to lie on your back on the X-ray table before connecting you to a monitor, which will record your blood pressure and pulse throughout the procedure. Your groin will be shaved and then cleaned with antiseptic fluid and your body covered with sterile drapes (sheets).

The Neuroradiologist will give you an injection of local anaesthetic into the skin of your groin to numb the area. This may cause some stinging, but it will only last for a short time. When the area is completely numb, the Neuroradiologist will make a small cut in the skin and insert a thin needle into the artery. A catheter (fine plastic tube) will then be passed over a fine wire into the artery. You may feel a sharp scratch and pressure or pushing at the insertion site to begin with, but this should not be painful. If it does become painful, tell the Neuroradiologist and he/she may be able to give you some more local anaesthetic.

When the catheter is in the correct position, the Neuroradiologist will inject the contrast medium (the special dye used to highlight blood vessels on X-rays). As the dye is injected and begins to pass through your artery, X-rays will be taken. You will need to lie very still while the X-rays are being taken. During this time, you may experience a warm sensation in your face or head and may see flashing lights for a few seconds. The side of your face may also feel cold from time to time during the examination. All of these symptoms are normal and are nothing to worry about.

The Neuroradiologist will explain what is happening throughout the procedure, which usually takes from thirty minutes to one hour to complete, but may take longer in more complex cases. Once the Neuroradiologist is satisfied that the images show all the information required, the catheter will be removed. The doctor or nurse will then press firmly on the insertion site in your groin for 10 to 20 minutes to prevent bleeding and minimise bruising. Sometimes a special device may be applied to close the hole in your artery.

When you are back on the ward, you will need to rest in bed, lying flat for 4-6 hours. You will be able to have something to eat and drink. The nursing staff will continue to record your pulse and blood pressure, as well as check your insertion site regularly. They will also make sure that you are able to move your limbs normally. If you feel unwell during this time, you must tell the nursing staff. After this period, when the nursing staff are sure the puncture site is ok, you will be allowed to get up and gently walk around the ward. Providing the puncture site and your observations remain ok you may then be allowed home that evening.

The Neuroradiologist will write a report and discuss the findings of the cerebral angiogram with your doctor, who will consider these along with other information about your condition. Your doctor will then discuss the results and any choices about future treatment with you. Occasionally, the Neuroradiologist will want to discuss the results with you directly.

How can I go home and if there anything I need to watch out for at home?

You will need to be driven home by someone else in a car or taxi. We strongly advise you to ensure that someone stays with you in your home for the night following the angiogram.

You may have a small amount of bruising where the catheter was inserted. However, if you notice any bleeding from the wound, you should press hard on it and either contact your GP or go to your nearest Accident & Emergency (casualty) department.

Most people fully recover from the procedure within one or two days.

Your consultant will advise you about other activities such as participation in sport. You may also be asked to advise the DVLA (Driver and Vehicle Licensing Agency) Drivers Medical Unit of your condition if you hold a driver's license. For further information, contact the DVLA on 0870 600 0301.

Further information

We aim to provide the best possible service and staff will be happy to answer any questions you may have. If you have any suggestions or comments about your visit, please speak to a member of staff.

Alternatively, you may wish to express your concerns in writing to:

Operations Director
Bupa Cromwell Hospital
164-178 Cromwell Road
London, SW5 0TU

Please do not hesitate to contact us if you have queries or concerns:

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