



Cerebral angiography: information for families

Cerebral angiography is a test that is carried out to study the blood vessels in the brain and neck. This information sheet from Great Ormond Street Hospital (GOSH) explains about the cerebral angiography procedure and what to expect when your child comes to GOSH to have one.

It is carried out in the Department of Radiology by a neuroradiologist, a doctor with specialised training in taking pictures the brain and nervous system. The test enables doctors to see a map of the blood vessels in the brain and neck, as well as to understand how blood flows between the different parts of the circulation. Sometimes a cerebral angiogram is carried out to enable doctors to give treatments directly into abnormal blood vessels. Your child's doctor will discuss the precise reasons for the test with you.

Providing there are no complications directly following this procedure your child will only need to remain in hospital for one night.

What happens before the test?

You will already have received information about how to prepare your child for the procedure in your admission letter. You may need to come to GOSH before the angiogram so that your child can have a pre-admission assessment to check that they are well enough. This appointment may involve taking blood samples and other tests.

Important

The person bringing your child to the procedure should have 'Parental Responsibility' for them. Parental Responsibility refers to the individual who has legal rights, responsibilities, duties, power and authority to make decisions for a child. If the person bringing your child does not have Parental Responsibility, we may have to cancel the procedure.

The doctors will explain the test in more detail, discuss any worries you may have and ask you to sign a consent form giving permission for your child to have the test. If your child has any medical problems, particularly allergies, please tell the doctors about these.

As contrast liquid (which shows up well on x-rays) is used during the procedure, which is removed from the body through urination (peeing), please tell the doctors if your child has any kidney problems.

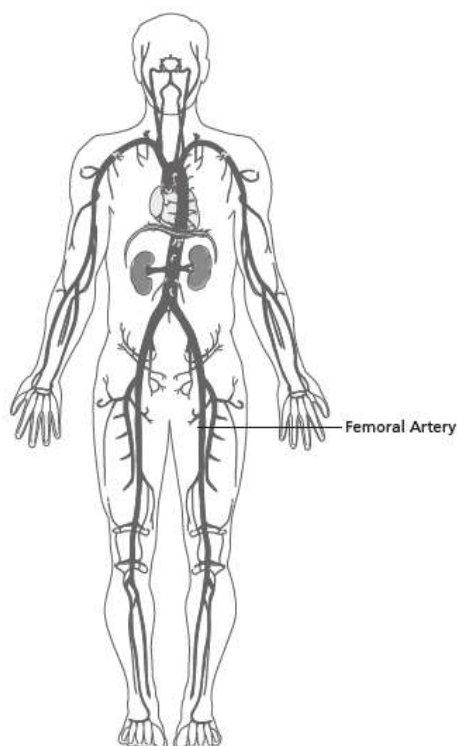
Many of the studies we perform involve the use of x-rays. Legally, we are obliged to ask any girls over the age of 12 whether there is any chance they might be pregnant. We may ask for a urine or blood sample to carry out a pregnancy test. This is to protect babies in the womb from receiving unnecessary radiation.

What does angiography involve?

Angiography is almost always carried out while your child is under a general anaesthetic, because they need to lie very still throughout the procedure and the procedure can take a while.

It is important that your child does not eat or drink anything for a few hours before the anaesthetic. This is called 'fasting' or 'nil by mouth'. Fasting reduces the risk of stomach contents entering the lungs during and after the procedure. You will be informed the night before the procedure of the time that your child should be 'nil by mouth' – in other words, have nothing to eat or drink before the anaesthetic. Fasting times are provided in your admissions letter

It is equally important to keep giving your child food and drink until those times to ensure they remain well-hydrated and get adequate nutrition. This may involve waking your child in the night to give them a drink which we recommend.



To carry out a cerebral angiogram, the neuroradiologist will insert a needle into an artery (large blood vessel) in your child's groin. This is

used to pass a catheter (a narrow plastic tube) into the artery. The catheter is threaded through the arteries of the body and then carefully put into each of the four main arteries in the neck which go on to supply the brain. An x-ray will be taken to check that the catheter is in the right place. The neuroradiologist then injects dye through the catheter and takes a series of x-ray pictures of the blood vessels and the way that the dye flows through them. At the end of the test the catheter is removed from the groin. No stitches are necessary, as only a small mark is left, which should heal completely within a few days.

Are there any risks?

Cerebral angiography is performed under general anaesthesia in children (although some teenagers may choose to be awake during the test). Although every anaesthetic carries a risk, this is extremely small. There is only a small risk of infection because no incisions or cuts are necessary. Your child may bleed from the area where the catheter is inserted, but this can be minimised by applying pressure for a few minutes after the procedure. A bruise may develop where the catheter was inserted, and some discomfort felt in this region, but pain relief like paracetamol or ibuprofen is usually enough.

What happens afterwards?

Your child will return to the ward after they have recovered from the anaesthetic. After a general anaesthetic, some children feel sick and may vomit. Your child may have a headache or a sore throat or experience some dizziness, but these side effects are usually short-lived and not severe.

When your child comes back to the ward, the nurses will check the puncture site regularly. Your child's neurological functions will be checked regularly too, by asking your child to move their arms and legs and speak, monitoring eye response to light, and pulse, blood pressure and temperature. Your child can start eating and

drinking as normal once they feel like it. It may be possible for you to take your child away from the ward on the same day as the procedure.

When you get home

You should call the hospital if:

- Your child starts bleeding from where the catheter was inserted. If this happens, apply pressure to the site of bleeding immediately.
- Your child is in a lot of pain and pain relief does not seem to help
- The area where the catheter was inserted looks red, swollen and feels hotter than the surrounding skin

- Your child is not drinking any fluids after the first day back home
- The leg where the catheter was inserted looks or feels different to the other leg

Getting the results

The pictures taken during the procedure need to be studied carefully by the radiologist, who will write a report for your child's doctor.

The results will not be available straightaway and usually we will make an outpatient appointment to discuss them with you.

Further information and support

If you have any questions, please telephone Koala Ward on 020 7813 8313 or Interventional Radiology on 020 7405 9200 ext 0491.

Having a brain angiogram



You have lots of blood vessels throughout your body. Blood carries oxygen (said: ock-see-jen) and goodness to every part of your body. Your body needs oxygen and food to work.



Your brain need oxygen to work properly. There are lots of blood vessels in and around your brain. A brain angiogram (said ann-jee-o-gram) is a scan to make a picture of the blood vessels in your brain.



You will have an anaesthetic (said an-ess-thet-ick) for the angiogram. You will not be able to feel anything or know what is happening during the angiogram.



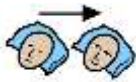
The doctor will put a thin tube into the top of your leg. They will move it up through your blood vessels to your brain.



Next they will put some liquid into the tube. This shows your blood vessels as a different colour on the picture.



The doctor will take lots of pictures to show up your blood vessels.



When they have taken the pictures, the doctor will remove the tube and you will start to wake up from the anaesthetic.



You will need to lie flat on your back for about 4 hours afterwards. This is to make sure the top of your leg is alright.



The nurses will check you regularly to make sure are getting better.



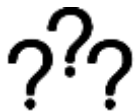
They will ask you to move your arms and legs and answer some questions.



The top of your leg might feel a bit sore. You can take pain medicines if you want.



We will send a report of the scan to your doctors.



Please ask us if you have any questions.