

Cerebral Angiogram - Information for Patients

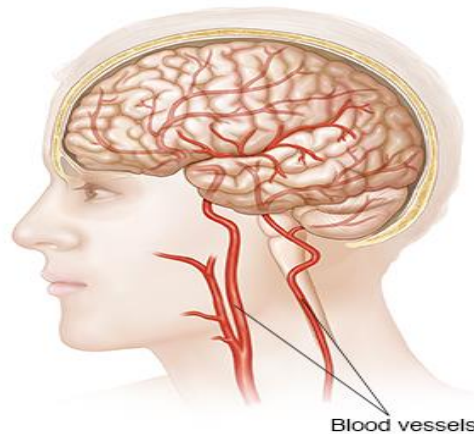
This leaflet aims to answer some of the questions you may have about having a cerebral angiogram. It explains the risks and the benefits of the procedure and what you can expect when you come to hospital.

A cerebral catheter angiogram may also be referred to a contrast enhanced study of the cerebral vessels.

If you have any questions or concerns, please do not hesitate to speak to the staff caring for you.

What is a Cerebral Angiogram?

A cerebral angiogram is an X-ray test that is used to take pictures of blood vessels in your head and neck.



What are the benefits?

Because an angiogram gives us lots of information about your blood vessels, it is often very useful in helping us diagnose your condition and plan any treatment if required.

We may use the test to assess brain aneurysms (abnormal ballooning out of the wall of a blood vessel), abnormal connections between blood vessels (arteriovenous malformations, fistulas), narrowing of blood vessels, and to assess the results of previous treatments, or occasionally to assess tumours.

What are the side effects are and the risks?

The procedure is normally very safe and most patients have no major problems.

- **Minor side effects**
 - As the contrast is injected you may have a warm feeling, flashing lights in eyes, hear buzzing noises or have a strange taste in your mouth.
 - Some bruising and mild bleeding may occur at the needle site in the groin.

- **Serious complications** occur in less than 1% of patients and include stroke and transient neurological symptoms. This equates to roughly 1 in 400 patients.

Contrast

Cerebral Angiograms use contrast (x-ray dye), and very rarely, a reaction may occur. If you have ever had a test that uses x-ray contrast and you have had a reaction to it, you should tell the doctor or nurse before you have your angiogram. A reaction may take the form of a rash or itching and very rarely, a more severe allergic reaction can occur. The team are trained to care for you and have measures in place to deal with this safely should this occur.

If you have had a previous reaction, please let us know, and we can put measures in place to minimise risk from another reaction.

Radiation – Benefit versus Risk

Cerebral Angiograms use X-ray radiation. The radiation dose that you get from a cerebral angiogram is small and the associated risks are low. Clinical staff consider both the risks and benefits when deciding what examination is appropriate for you. The benefits of having the cerebral angiogram outweigh any risk. Clinical staff are responsible for making sure that the dose you receive is kept as low as necessary to aid your diagnosis or treatment.

Pregnancy

If you are in the early stages of pregnancy there is a very small risk of x-rays harming your unborn child. If you think you could be pregnant, or you are trying to get pregnant, please tell us before your appointment. Individuals aged 10-55 will be asked to confirm their pregnancy status by the radiographer before the procedure, and asked to sign a form.

Consent

We want you to be involved in all the decisions about your care and treatment. If you choose to go ahead, you will be asked to sign a consent form. This confirms that you agree to have the procedure and understand everything involved. Students/trainees may be present during the examination but only with your verbal consent.

Please remember that you can ask the Interventional Radiologist any questions you have at any time before, during or after your scan.

Who are the team?

The cerebral angiogram is carried out by the Neuro Interventional Radiology team, which consists of a Consultant Interventional Neuro Radiologist, specialist nurses and a specialist radiographer. They are professionals in this type of procedure.

Pre-assessment

An appointment with one of our pre-assessment nurses is required prior to your angiogram. They will carry out a pre-assessment health check and explain the procedure and answer any questions you may have.

At your pre-assessment visit you will be asked questions about your general health and some questions which are important for us to know so that we can prepare for your procedure and give you advice before attending. You may also have some blood samples taken.

It is important to let us know if you have any of the following:

• Severe allergies?
• Have you had a previous adverse reaction to x-ray dye before?
• Asthma which is poorly controlled?
• Poor kidney function (Renal Impairment)?
• Diabetes – diet, tablet or insulin controlled?
• Are you taking any blood thinners (anti-coagulant or antiplatelet medication)?

At pre-assessment, please let the nurse know if you require transport to and from your appointment as you will not be able to drive yourself home or use Public Transport.

Medication

You should continue to take your medications as normal. However, there are some instances where we will advise you to alter your tablet treatment before coming in to hospital. This will be discussed with the Nurse at pre-assessment. Please contact us before stopping any medications and we will be happy to advise.

It is very important that you bring with you all your tablets and the doses prescribed whenever you attend the hospital.

Medication that is usually stopped before the angiogram includes (do not stop medication without being directed to do so from your pre-assessment nurse):

- Warfarin (a tablet to thin the blood): this is usually stopped 5 days before the procedure depending on the reason for Warfarin being prescribed.
- Metformin (a tablet used in people with diabetes): this must be stopped for 24 hours before the angiogram, and not restarted until 48 hours after the procedure.
- Other diabetic medication can be taken as usual with food.
- Water tablets, such as Furosemide, are usually not taken on the day of the procedure.
- Nebulisers should be used as normal. Please bring your portable nebuliser machine with you if needed.

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Fasting

It is important that you fast before your procedure and follow the guidelines below.

Please follow the below instructions for fasting requirements.

Admission time	Fasting instructions
7:30am	Fast from midnight
8:30am	Fast from midnight
11:00am	Light early breakfast no later than 6am

Please attend the appropriate department as stated on your appointment letter

What happens before the test?

You will be asked to change into a hospital gown and brought to the angiography suite in your bed, where you will be met by a team of nurses, a radiographer and an Interventional Neuroradiologist (Doctor). The procedure will be explained to you and you will be asked to sign a consent form. Your procedure will be carried out by an Interventional Neuroradiologist. The Royal Victoria Hospital is a teaching hospital and as such university students may be in attendance, with your permission.

What happens during the test?

You will be helped to transfer onto the X-ray table and monitors attached to record heart rate and blood pressure. You will be awake for the procedure. The most common way to get access to your vessels, is through the femoral artery in your groin. However, another option is for the procedure to be carried out through your radial artery in the wrist. Both options will be explained while your consent is being obtained. If there is an issue with one site, the doctor may use the other.

The top of your leg or your wrist will be cleaned, and you will be draped in sterile gowns. The Interventional Neuroradiologist will apply local anaesthetic to the access point so that you will not be able to feel what is going on. Once the area is numb, the Interventional Neuroradiologist places a fine tube into a blood vessel (artery) to allow a finer tube to be guided towards the arteries in your neck. Once in the body, the tip of the tube usually goes no higher than an artery in the neck – and almost never into an artery in the brain – the contrast (dye) travels with the flow of blood into the vessels of your brain. The catheter tube is used to allow the dye from the syringe to get to the correct place inside your arteries to help produce the best possible x-ray images. Before the pictures are taken, the radiographer will move the equipment around you into the correct position. It is very important that you remain still to ensure the best possible pictures are taken. At the end of the test the catheter is removed from the groin or wrist which should heal completely within a few days.

If the femoral artery (groin) was used, pressure may be applied with fingertips or occasional an implantable device, may be needed to close the artery.

If the radial artery (wrist) was used, a small strap with a balloon will be placed around your wrist and the balloon filled with air to cause pressure over the tiny hole in the artery and overlying skin – this is usually removed within one hour.

The whole procedure is likely to take one hour.

Normal sensations during the procedure

The doctor will inject some medication to numb the skin of the wrist or groin at the start of the procedure. You may then experience pressure at the area during the procedure. The blood vessels in the body do not have nerve endings and you will not feel anything when the catheter is being moved towards the neck arteries. Small dye injections will be used to help confirm the position of the catheter. You may experience heat at one side of the face, on the neck. You may experience flashing lights, fireworks or lightning and a pressure sensation behind one eye during certain injections – this lasts for a few seconds and is entirely normal. You may also experience short lived neck discomfort. The doctor may want to obtain higher detailed 3D images of your vessels during the procedure – if these are required, you will be informed and the radiographer will spend a few minutes positioning the table appropriately. The doctor will then inject slightly more contrast than before whilst the x-ray camera rotates around you, but without touching you.

A small number of people undergoing the procedure may feel faint, this will usually resolve by itself, however the nurses and doctor may give you fluids or drugs if necessary.

What happens after the test?

Once the procedure is completed you will return to the Day of Surgery Ward / Unit for nursing staff to monitor you post procedure.

If the groin (femoral artery) has been used, you will need to lie flat for up to 4 hours to allow the access point in the groin time to heal.

If the wrist (radial artery) has been used you can sit in a chair and be monitored for 2 to 4 hours.

You will be discharged in the early evening and a relative/friend must collect you from the Day of Surgery Ward / Unit.

Aftercare following Discharge.

An adult must stay with you during the 24 hour period following discharge in the unlikely event of complications. Please have this arranged in advance.

You cannot drive yourself home or use Public Transport, please arrange transport in advance of your appointment. If you do not have anyone to drive you home, the Trust can help.

Please rest at home for 24 hours.

Do not exercise, lift heavy items or consume any alcohol during this period.

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What to do when you get home

Wrist (radial) angiography

The dressing or plaster can be removed the day after the procedure and does not need to be replaced.

Avoid lifting any heavy bags or doing any strenuous activity for 3 days, as this increases the pressure in the wrist area, making it more likely that the wound will bleed.

Check your wound and hand for heat, redness, pain or swelling. If it becomes excessive, contact your GP (General Practitioner).

If your hand becomes cool, pale and / or painful, please seek urgent medical attention from your closest Emergency Department.

Groin (femoral) angiography

To close your wound, the doctor may have used a special collagen plug called an “angioseal”. If so, you will have been given a spate card with instructions about wound care.

The dressing or plaster can be removed the day after the procedure and does not need to be replaced.

Avoid any lifting or doing any strenuous activity for 2 days, as this increases the pressure in the groin area, making it more likely that the wound will bleed.

It is rare for serious complications to occur. The most common problem is for a bruise to form at the insertion site, which may be uncomfortable for a few days. If this becomes hot, swollen or very red and more painful, please contact your GP as the wound may need further attention.

If your foot and / or leg becomes cool, pale and / or painful, please seek urgent medical attention from your closest Emergency Department.

Driving

You cannot drive for 48 hours if the wrist (radial artery) was used.

You cannot drive for 48 hours if the groin (femoral artery) was used.

Complications

Complications after a cerebral angiogram are very rare, however as will be explained on discharge there are a number of things to be aware of when you go home. You will be given a discharge information leaflet for your information.

Check the access point in your groin or wrist for any increased amount of bruising, swelling, or bleeding (In the unlikely event of bleeding, press hard upon your groin whilst your relative/friend telephones an ambulance (999). Your relative/friend should take over pressing your groin until help arrives. Please inform the ambulance crew that you have had an angiogram. You may then be taken to your local Emergency Department to be assessed).

- a. Headaches can occur during or following the procedure and migraine headaches can occur – these usually resolve within several hours of the procedure and pain killers (paracetamol) may be taken. Should the headache persist contact **02890633428**
- b. Numb/cold foot on the side of the access point – return to hospital for assessment (Local Accident and Emergency Department if out of hours)
- c. Speech problems, eyesight problems, pins and needles or weakness in arms or legs, facial weakness – may indicate an exceedingly rare occurrence of a delayed stroke. Phone 999 and inform ambulance crew that you had a cerebral angiogram in the Royal Hospital. **For any concerns, please contact ward 4F on 07525126656**
- d. Headache can occur during or following the procedure and migraine headaches can occur – these usually resolve within several hours of the procedure
- e. Bruising, bleeding or swelling at the access site at the wrist or groin
- f. For radial access, decreased blood flow to the hand may occur, however this is very rare and may require further procedures
- g. Artery damage – to the wrist or groin vessel, or to another vessel in the body such as a neck artery – this may require medication, or treatments including surgery
- h. Vomiting – should vomiting continue for more than 2 hours contact **02890633428**
- i. If you feel that you are a medical emergency, please contact **999**.

Image sharing

Your images will be electronically stored on the hospital picture archiving system. This data can be accessed throughout the Belfast Health and Social Care Trust and other doctors and health care professionals who are directly involved in your care. The ability to share images and radiological reports will improve the safety and quality of your care by ensuring that the right information is available in the right place at the right time.

In order to improve the medical services we provide we may also use your data as anonymously as possible for internal audit and medical education. If you would prefer that your data is not used for these purposes, please inform a member of staff when you attend for your examination.

If your data is to be used for research, then a separate consent process will be used. You will be asked for your consent, should this be the case.

Contact us

If you have any queries, we will be happy to answer any questions before or after your procedure and you can contact us on the number given on your appointment letter.

Feedback

We hope you found the information in this leaflet helpful. If it did not tell you what you needed to know or you would like to provide any feedback on your experience please let us know so that we can make any necessary improvements.

You can provide feedback on your experience:

Telephone: (028) 9504 8000 (Monday-Friday: 9am-4pm)

Textphone: 18001 028 950 48000

By email: compliments@belfasttrust.hscni.net

By email: complaints@belfasttrust.hscni.net

By completing an online form: <http://www.belfasttrust.hscni.net/contact/FeedbackForm.htm>

Care Opinion



We invite you to share your experience by clicking the following link:
<https://www.careopinion.org.uk/>

or by scanning the following QR code on your smartphone or tablet



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Language and accessible support services

Deaf/Hard of Hearing

If a Sign Language interpreter is required, please either telephone **028 9615 8900** via the Sign Video remote interpreting service (<https://signvideo.co.uk/deaf-community/>) or email us at MPHAdminFOH@belfasttrust.hscni.net and we will arrange one for your appointment. Please have your H&C number ready when calling or include it in your email. This can be found at the top right corner of any Health and Social Care letters you may have received.

If you are unable to hear on the phone and need to contact us with regards to your appointment you can email us at MPHAdminFOH@belfasttrust.hscni.net.

Do you need this information in another format or language?

The Trust has access to interpreting and translation services. If you need this information in another language or format, including Braille, large print, CD, audio tape please contact the telephone number **028 9615 8900** or e-mail address MPHAdminFOH@belfasttrust.hscni.net, and we will do our best to meet your needs.

Polish - Czy potrzebujesz tych informacji w innym formacie lub języku?

Fundusz ma dostęp do usług w zakresie tłumaczeń ustnych i pisemnych. Jeśli potrzebujesz tych informacji w innym języku lub formacie, w tym w piśmie Braille'a, dużym druku, na płycie CD, kasecie magnetofonowej, skontaktuj się z nami pod numerem telefonu lub adresem e-mail **028 9615 8900 / MPHAdminFOH@belfasttrust.hscni.net**, a my dołożymy wszelkich starań, aby spełnić Twoje potrzeby.

Arabic - هل تحتاج هذه المعلومات بصيغة أو بلغة أخرى؟

تستطيع الجمعية توفير خدمات الترجمة الفورية والتحريرية. إذا احتجت هذه المعلومات بلغة أو بصيغة أخرى، بما فيها صيغة برايل Braille أو صيغة بالأحرف الكبيرة، أو في سي دي CD أو في شريط مسموع، يُرجى الاتصال برقم التليفون أو عبر البريد الإلكتروني **028 9615 8900 / MPHAdminFOH@belfasttrust.hscni.net**، وسوف نبذل قصارى جهدنا في تلبية احتياجاتك.

Lithuanian - Ar jums reikia šios informacijos kitu formatu ar kalba?

Tarnyba gali suteikti vertimo žodžiu ir raštu paslaugas. Jei reikia šios informacijos kita kalba ar formatu, įskaitant Brailio raštą, didelį šriftą, kompaktinį diską, garso įrašą, skambinkite telefonu arba susisiekite el. paštu MPHAdminFOH@belfasttrust.hscni.net / **028 9615 8900** ir mes padarysime viską, kad patenkintume jūsų poreikius.

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Romanian - Aveți nevoie de aceste informații într-un alt format sau altă limbă?

Trustul are acces la servicii de interpretariat și traducere. Dacă aveți nevoie de aceste informații într-o altă limbă sau într-un alt format, inclusiv Braille, tipărire cu caractere de mari dimensiuni, CD, înregistrare audio, atunci vă rugăm să ne contactați la numărul de telefon sau la adresa de e-mail **MPHAdminFOH@belfasttrust.hscni.net / 028 9615 8900**, iar noi vom face tot posibilul pentru satisfacerea necesităților dumneavoastră.

Tetum - Ita presiza atu informasaun ida ne'e iha formatu ka lian seluk ka lae?

Fidusiáriu ida ne'e iha asesu ba servisu durubasa no tradusaun. Se Ita presiza informasaun ida ne'e iha lian ka formatu seluk, inklui letra Braille, letra boot, CD, kasete audio, entaun favór telefone númeru ka enderesu e-mail **MPHAdminFOH@belfasttrust.hscni.net / 028 9615 8900**, no ami sei halo esforsu tomak atu kumpre Ita-nia nesesidade sira.

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