

INFORMATION AND PREPARATION SHEET MRI SCAN RBHSC

A guide to your child's MRI scan

This leaflet will help explain what the examination involves and what to expect when you and your child come to the hospital. It may not answer all your questions, so if you have any queries or concerns, please call the telephone number on your appointment letter and we will be happy to help.

It is **important** that you **read this leaflet carefully**, even if you have had this procedure before.

What is an MRI scan?

MRI stands for Magnetic Resonance Imaging. This system uses a powerful magnet and radiofrequency waves to produce detailed images of the body to help diagnose and treat medical conditions. A MRI is painless and does not use X-Rays or involve radiation. A specialist paediatric radiographer will perform their MRI scan.

How long will it take?

Most MRI scans take around 30 minutes but can vary from 15-90 minutes. Radiographers will tailor your child's scan to be as quick as possible whilst maintaining optimum image quality.

We ask you arrive at least 15 minutes before your appointment time to facilitate some safety checks prior to their MRI. Normally you and your child can go home immediately after your scan.

If your child requires an injection of contrast, we ask you arrive 60 minutes before your appointment as analgesic creams used to numb injections sites take 45minutes to become effective. We will also ask your child to remain in the department for up to 30 minutes following the injection.

If your child requires a General Anaesthetic there will be a period of recovery after the scan whilst your child wakes up. Most children wake up from anaesthetic very quickly and are often ready to go home within 20-30minutes.

We will always endeavour to see you on or before your appointment time but due to the nature of imaging on an acute hospital site, there may occasionally be delays outside our control.

What if my child cannot lie still for that length of time?

Most children are remarkably cooperative for MRI scans and have their scan awake whilst watching a movie on our integrated entertainment system.

There will always however be a group of patients that will not tolerate MRI awake due to the length of time they are required to stay still. Typically, this is children under the age of four or those with additional needs.

For these patients imaging will be carried out under general anaesthesia.

Is an MRI safe?

MRI is a very safe procedure. It has been in clinical use for many years. There are no known risks to being exposed to the magnetic field but there is a small risk from loose metallic objects and some surgical implants. Everyone entering the room with the scanner will be asked series of questions to eliminate these risks. Some patients may feel warm during the scan although this is uncommon in children.

Please advise the MRI department at the earliest opportunity if you child has any of the following as they can present a risk of injury if they were to enter the MRI room:

- A pacemaker or implanted cardiac device
- Aneurysm clips, coils or stents within their body
- A cochlear implant
- A neurostimulator
- If they have **ever** had metal in their eyes or metal injuries to any part of their body
- Are or could be pregnant

If your child requires a General Anaesthetic there is a very small associated risk with this procedure. This will be explained on the day of the scan by a Consultant Anaesthetist but the risk of serious complications is in the region of 1 in 10,000 or 0.0001% of cases. For more information see www.rcoa.ac.uk/patientinfo

Can I stay with my child during their scan?

If your child is having their scan awake we would encourage a parent or carer to stay with them if they would like. Parents will also be required to carry out a short safety questionnaire.

Unfortunately, certain medical implants and injuries involving metal under the skin or in the eyes will preclude a parent from entering the room. Radiographers will make every effort for you to be with your child but we will make the decision with your safety in mind.

You will also not be able to accompany your child if you are pregnant.

If your child is having a general anaesthetic you can often stay with them until they go to sleep but you will not be permitted to stay with them beyond this point. You will be brought back to them as soon as they start to wake.

Before you come to the department

You **must confirm your appointment** using the phone number on your appointment letter. This is to allow us to check any safety issues prior to your appointment. Failure to confirm may result in your appointment being given to another patient.

Unless you are told otherwise, you can eat and drink normally and continue with any medication. If your child is required to fast for their scan further instructions will be enclosed explaining this.

Attention should be paid to metallic items on clothing and in particular, glittery decorations. These may have to be removed during scanning but your Radiographer will advise you if required. This may mean your child changing into a hospital gown and if they would be uncomfortable with this please feel free to bring clothing with no metal/glitter e.g. Pyjamas

We ask where possible for you to attend your appointment with your child and one parent/carer. We will always try to accommodate family groups as much as possible but have limited space and have to comply with any infection control requirements.

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When you arrive at the MRI Department

On arrival to the MRI department, you will be greeted by the receptionist who will book you in and direct you to the waiting area. A Radiographer will then carry out some safety screening questionnaires regarding implants and surgical history and explain the procedure to you and your child.

If your child requires a contrast injection, some topical anaesthetic cream such as “EMLA” may be applied.

If your child is attending for a general anaesthetic you will also speak to members of our anaesthetic team who will explain the general anaesthetic and gain formal consent for that part of the procedure.

During your child’s examination, a team of MRI radiographers will care for you and your child. If under anaesthetic, they will also be supervised by one of our expert anaesthetic teams. A radiologist or cardiologist may also be present. It is common practice to have imaging checked during scanning by a radiologist due to the variation and complexity of MRI scans to ensure to supplementary pictures are not needed. This is normal and not a cause for concern.

As this is a training and teaching hospital there may be student radiographers or medical students present within the department – they will be supervised by a qualified member of staff at all times.

Contrast Agents for MRI

Occasionally a Radiologist/Cardiologist may ask for an injection of a contrast media during your child’s scan. MRI contrast is based around a compound called Gadolinium and in essence allows for better visualisation of blood in the body. Most abnormalities have an increased blood supply and will be highlighted. Conversely, if there are no abnormalities a lack of enhancement will help to rule out any disease.

In order to give this contrast a small IV cannula (often known as a butterfly) will be inserted into your child’s arm. This is similar to a blood test but a small plastic tube will be left in the arm. A cold freeze spray and topical anaesthetic cream are available to take away this discomfort if your child would prefer this.

Like any medicine, there is a very small risk of having an allergic reaction to these agents. This is most commonly a feeling of nausea or dizziness (1 in 1000) but more severe reactions are possible such as fast heart rates or swelling of the mouth or tongue (1 in 100,000) but these are very rare. MRI contrast is generally well tolerated and widely used, but if you have any concerns please discuss these with your radiographer.

The MRI Scan

The scanner is shaped like a large hollow cylinder open at both ends, similar to the shape of a toilet roll. Your child will either go into the scanner feet or head first. A piece of equipment called a coil will be placed around the part of your body that we are scanning. During the scan you will hear rhythmic tapping or buzzing sounds which can become quite loud. This is normal and you and your child will be given headphones to protect your ears from the noise.

For your child there is a TV at the end of the scanner which they can watch in an angled mirror.

They will be required to stay as still as possible during scanning and you can work at home with them to practice this. We have also developed a virtual reality app called “**virtual reality MRI**”

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which has videos from inside our scanner to show what it is like. This is available on the **Apple and Google Play stores or on Belfast Trust's Youtube.**

The radiographer will sit in a separate room but can see you and your child through the large window. There is a 2-way microphone and call bell so that the radiographer can talk to your child during the scan and they will regularly check in with them.

As you will both be wearing earphones there is often no way for you to speak to your child during imaging and you should try to keep distractions to a minimum to ensure the best quality imaging. Often parents and children benefit from the parent sitting at the entrance to the scanner holding on to their child's hand or foot to let them know you are still there.

After your scan

Once the examination is complete you can get dressed and go home.

If a contrast has been given we will ask you to wait for up to 30 minutes before taking out the cannula.

If your child has had a general anaesthetic you will be discharged by the anaesthetic team once your child has recovered. As mentioned previously this is often quickly within 20-30 minutes of the scan finishing.

When will I get the MRI results?

The radiographer will not be able to tell you the results of the scan. The scan will be reported by a radiologist and the report will be sent to your referrer. This is normally done within a few days.

Is there an alternative to an MRI scan?

The referrer has decided that an MRI scan would be the most useful examination in your case and referred you to a radiologist who as a specialist in this area will ensure this is the most appropriate imaging examination. If you would like more information about alternative imaging modalities including not having the examination, please speak to the doctor referring you for MRI.

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 on the day of your MRI scan or 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:



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.

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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 MPHAdminFOH@belfasttrust.hscni.net / 028 9615 8900، 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.

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.