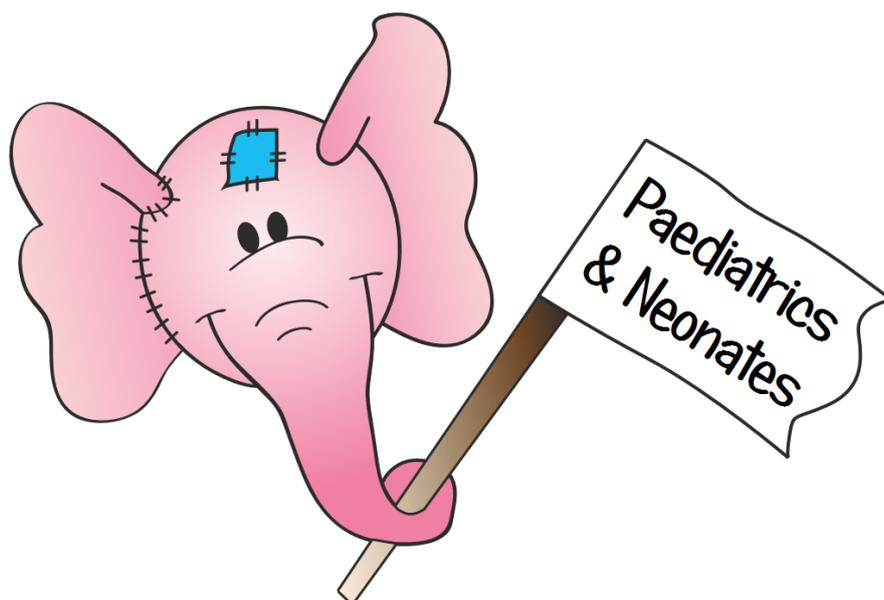


My child is having an MRI scan

Children's Ward

Parent/Carer Information Leaflet



Why does my child need an MRI scan?

The MRI (magnetic resonance imaging) scan will have been suggested by your child's paediatric consultant, to help diagnose your child's condition. MRI scans can be used to investigate a variety of areas such as the brain, spinal cord, eyes, ears, heart, chest, lungs, abdomen (stomach) and bones.

What is an MRI scan?

An MRI scan uses strong magnetic fields and radio waves to produce detailed images of parts of the body. An MRI will give much clearer images than an X-ray, CT scan or ultrasound may be able to give. The MRI scanner is a hollow machine with a tube running horizontally through its middle. Your child will lie on a bed that slides into the tube (please see figure 1).



Figure 1 – an MRI scanner

How will I know when my child's scan is?

The MRI department will send you a letter with the date for the scan. When you receive your appointment, please let us know if you are going to attend by following the instructions in the appointment letter.

Will my child be put to sleep for the MRI scan?

Many children will find it difficult to lie still for the scan either because of their age or medical condition. Your appointment letter will tell you if your child is to have sedation or general anaesthetic. In most cases we give sedation.

Are there any risks associated with an MRI scan?

An MRI scan is a harmless procedure as long as your child has been prepared and an MRI checklist is completed beforehand. This will check your child's health and medical history to make sure they can have the scan safely. No health risks have been associated with the magnetic field or radio waves used for the scan – it does not use radiation. For this reason, the procedure can be repeated, if necessary.

How do I prepare my child for the MRI scan?

You and your child will need to remove all metal objects such as glasses, jewellery, belts and hairclips before the scan. Fillings will not interfere with the scanner. Do not take any electronic devices such as mobile phones into the scanner room with you. Credit cards and car park tickets must also be left behind. Ensure your child's clothing has no metal clips or buttons on it or they will need to change into a gown. Please inform the MRI staff if your child has braces, a shunt or any metal work in their body.

Your child will need to be starved before the scan whether they are having sedation or a general anaesthetic. It is important that the instructions are followed or the scan may be delayed or even cancelled.

- **If your child is breastfed only, they should have their last feed before 5am on the day of the scan.**
- **All other children can have milk and food up to midnight the night before the scan.**
- **Encourage your child to drink clear fluids (such as water or diluted squash) until 6.30am to avoid dehydration.**
- **After 6.30am, they must not have anything until after the scan.**

If your child is booked for sedation, it is helpful if your child is tired. For this reason, try to reduce the amount of sleep your child has by allowing them to go to bed an hour later than usual, the evening before the scan. On the morning of the scan, try and wake them an hour earlier.

What happens on the day?

As there can be up to four children booked for an MRI on the morning of your child's scan, please phone the ward (as detailed in the appointment letter instructions) to make sure there is a bed available.

When you come into hospital for the scan, please bring your child's slippers and dressing gown.

You will need to bring your child to the Children's Ward by 8am at the latest so they can be prepared. This is not your MRI appointment time as this can be at any time during the morning. The scans are usually scheduled by the children's age from youngest to oldest but the list can change on the day.

Your child will first be assessed by nursing staff who will complete some paperwork and carry out basic tests such as temperature, pulse rate, oxygen levels and weight.

What if my child is having sedation?

Your child will be assessed by the paediatric doctor who will discuss any risks associated with sedation. The doctor will use your child's weight to calculate the dose of sedation. This is given as medicine by mouth.

Your child then needs to be encouraged to sleep. Every child is different and will react differently to sedation. Some may calmly fall into a natural sleep within 10 minutes. Others may resist the feeling to sleep and can become quite agitated. We will turn down the lights, turn off the TV and draw the curtains around the bed, to help encourage sleep.

Please be respectful of other children trying to sleep when it is not your child's slot. There is a playroom available if your child wants to play.

Once your child is asleep, they will be taken down to the MRI department on their bed. One parent must go with them. Your child will have a monitor connected to them, to observe their breathing throughout the scan. You will be asked to complete a safety questionnaire and then you may accompany your child into the scanner room, in case they were to wake up and potentially fall from the bed.

The MRI scanner is operated by a radiographer from outside the room. The nurse will also be outside the room, observing your child through a window. At times the scanner can be very noisy so you and your child will be given headphones or special ear protectors. The scan can last from 15 up to 90 minutes. If you suffer from claustrophobia, it may be worth asking another relative to go with your child for the scan.

If your child needs a scan with a contrast dye, they will have to have an intravenous cannula (a drip) put in before they are sedated.

Side effects of the sedation

Modern sedation medicines are safe and complications are rare.

For a child in good health having a minor test or treatment, it is possible that they may experience a headache, feel dizzy or be sick (this happens to about one in 10 people). Sickness only lasts a short time and we can give your child medicine to help with this.

Side effects of the contrast dye

Very occasionally, we may have to give your child an injection of contrast dye. This allows us to see certain structures, such as blood vessels, more clearly. If needed, the injection is given into a vein. It contains the rare earth metal called gadolinium. It is considered very safe but occasionally there are some side effects. These are usually mild and do not last very long.

Common side effects (affecting roughly one in 100 people) include a headache, nausea (feeling sick), dry mouth and dizziness. Some people can have an allergic reaction, but this is very rare (roughly less than one in 1,000 people). Please let the MRI staff know if your child has had a previous allergic reaction to X-ray dye.

What if my child is having a general anaesthetic?

Your child will be assessed by an anaesthetist who will discuss the anaesthetic process and any risks associated with it. We will then put two wristbands on your child and anaesthetic cream on the backs of both of their hands. After this, you and your child will go to the MRI department.

Once you are in the department, your child will be given the anaesthetic and the MRI scan will be carried out. One parent is allowed to go into the scan room as long as the safety criteria are fulfilled. When your child is asleep, you can either return to the Children's Ward or go and have a drink and return to the MRI department in about half an hour. By then, your child should have had their scan and woken up from the anaesthetic.

Side effects of general anaesthetic

Modern anaesthetics are very safe. Most children recover quickly and are soon back to normal after their anaesthetic.

As with sedation, there can be side effects which are usually minor and typically only last a short period of time.

The most common side effects include a headache, sore throat, sickness or dizziness (about one in 10 people may experience these).

Sometimes the child can be a little upset or agitated on waking but they usually get over this quickly.

What if the scan is unsuccessful?

Occasionally the sedation will fail. Your child will either fail to go to sleep at all or wake up during the MRI scan. The sedation cannot be repeated on the same day so the MRI will be cancelled. In addition, one child in 25 might get so restless that the test has to be cancelled.

The MRI department will write to you with a future appointment. The second attempt will usually be carried out under a general anaesthetic. It is very unlikely for MRI scan to fail for a child under a general anaesthetic.

When can my child go home?

- **For sedation** – once your child is awake and can drink clear fluids such as diluted squash or water, they will be able to go home.
- **For a general anaesthetic** – your child will need to be observed for approximately two hours to ensure they have recovered from the anaesthetic.

When will my child get their results?

Results will not be available on the day as the images need to be reviewed by a consultant radiologist which takes some time. You will be given your child's results at your next outpatient appointment.

What should I look out for when we get home?

- Children are generally more sleepy than usual for 24 hours after a scan, either with sedation or a general anaesthetic.
- Make sure that your child can drink clear fluids such as diluted squash or water, before giving them anything to eat. It is a good idea to wait about 20 to 30 minutes after the drink before giving them any food.
- If your child feels sick or has been sick, do not give them milk. If your child has been sick, just give them clear fluids such as water or squash and wait about 30 minutes to one hour. Once your child feels well, try them with their normal food and drink.
- Keep a close watch on your child until they are back to normal. Do not leave them with an inexperienced carer.
- If your child is taking any medications, please give these as normal.

- If applicable, your child should be well enough to go to school a day or two after the scan.

Can I find out more?

You can find out more from the following web links:

[The Royal College of Anaesthetists \(2014\) Your child's general anaesthetic - information for parents and guardians](#)

www.youranaesthetic.info

If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Children's Ward on 01384 244271

Russells Hall Hospital switchboard number: 01384 456111

This leaflet can be downloaded or printed from:

<http://dgft.nhs.uk/services-and-wards/c2-childrens-ward/>

If you have any feedback on this patient information leaflet, please email dgft.patient.information@nhs.net

This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

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Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

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Aceasta broșura poate fi pusă la dispoziție tipărită cu caractere mari, versiune audio sau în alte limbi, pentru acest lucru va rugăm sunați la 0800 073 0510.

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