

## Does my child need to fast?

If your child requires sedation or general anaesthesia for the scan, specific instructions about fasting will be given to you by the MRI Department. These instructions are also available on the MRI website. If you are uncertain about the fasting instructions, please contact the MRI Department. For children who are not having sedation or anaesthesia, no fasting is required.

## Where do I go and how long will it take?

Most MRI scans for children are done on an outpatient basis. MRI is in the department of Medical Imaging (Radiology) on the 2nd floor of the Royal Children's Hospital, main building. Optimal MRI scans for children take about one hour. Although we endeavor to be on time, we are occasionally delayed by emergency scans. You will be able to leave immediately with your child following the completion of the scan. If your child has had an anaesthetic, he/she will be observed briefly in MRI by the medical and nursing staff prior to leaving. Children under 12 months of age are occasionally admitted to the ward for brief observation after an MRI with general anaesthetic or sedation.

## Car parking

We recommend arriving early for all appointments. There is limited council car parking surrounding the hospital and the Royal Children's Hospital visitors car park fills quickly after 9am.

## What if my child is sick or I am unable to keep the appointment?

**As you may be aware, there is a waiting list for MRI scans and we do not like to let appointments go wasted. If your child is sick and unlikely to tolerate or cooperate with the scanning, please contact the MRI Department as soon as possible. This is particularly important if your child is to have a general anaesthetic.**

## When will I receive the result?

MRI scans have many more pictures with much greater detail than other x-ray or CT scans. They take a lot longer to review and report.

Urgent inpatient scans are analysed and reported on the same day. Non-urgent outpatient MRI scans are reported within two working days. Reports are sent to the requesting doctor, either by mail or fax within five days.

The MRI technologist cannot tell you the results of the scan when it is finished, secretarial staff will not give out results over the telephone. You must make arrangements with your doctor for receiving the result.

## For more information about MRI

Visit our website at

[www.rch.unimelb.edu.au/cep/pages/mri.html](http://www.rch.unimelb.edu.au/cep/pages/mri.html)

to view 3D images and pictures of the MRI room and the scanner. Hear the noises the scanner makes and download the safety questionnaire and fasting instructions.

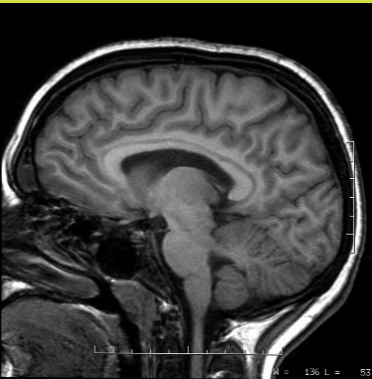
**MRI Department  
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Developed by the MRI Department and  
The Children's Epilepsy Program,  
Royal Children's Hospital, Melbourne

If you have questions about the need for an MRI scan or general anaesthesia, or questions about the results of the MRI scan, please contact your doctor.



# MRI for kids



## What is an MRI?

**MRI (Magnetic Resonance Imaging)** is a diagnostic technique for taking pictures of the inside of the body. MRI is useful for detecting abnormalities of the brain, spinal cord, blood vessels, joints and internal organs. During an MRI scan pictures are taken from different angles and a computer processes these, to produce a detailed image of the part of the body being scanned. MRI uses a strong magnetic field and radio waves to obtain the pictures. The magnetic field and radio waves are safe and no adverse health effects have been reported with normal use. There is no ionizing radiation (eg x-rays) used in MRI.

In addition to providing pictures of body structure, some specialised MRI scans provide pictures of body chemistry (MR spectroscopy) and function (functional MRI).

## What is involved with an MRI scan?

The MRI scanner is like a big square box with a tunnel through the middle. During an MRI scan you have to **lie very still in the tunnel**, usually on your back. The table that you lie on is narrow and the upper half of your body usually goes down the tunnel. You can see what is happening through mirrors and you can talk to the MRI technologist performing the scan. If you like, you can watch a video or listen to music. The scan takes up to one hour.

Foam cushions and soft straps are used to help you keep still. A special frame, which looks a bit like a helmet goes over the part of the body being scanned and records the radio waves for the pictures. Headphones must be worn to protect your hearing from the loud 'knocking' noises of the machine.

Check out the web site to hear the noise of the MRI scanner and see inside the MRI room.

## Are there any needles?

Occasionally, an injection of a dye (contrast) is given into a vein to provide extra detail in the pictures. If an injection is necessary, anaesthetic cream will be put on your hand first to make the area numb. An injection of dye does not mean a scan is abnormal.

## What happens if my child can't lie still or is frightened?

General anaesthesia is usually required for infants and young children (under seven years), or children who would have difficulty keeping still for the 45-60 minute duration that it takes to get the best pictures. An MRI simulator is available for children to have a 'practice run' if they are unsure or frightened.

If you are uncertain about whether your child is having an anaesthetic or not, you are uncertain whether they will be able to keep still, or you wish to make use of the simulator, please contact your doctor or the MRI Department.

## Can I be with my child during the MRI scan?

There is limited space available in the MRI room. If your child requires a general anaesthetic for the procedure, you can only remain with your child until they are asleep. This is so the MRI and anaesthetic staff have adequate room to access and monitor your child closely.

If your child is not having a general anaesthetic, one person may stay provided they also comply with the special precautions. Other family members must wait in the waiting area.

## Special precautions

All people entering the MRI room are required to complete the Royal Children's Hospital MRI questionnaire prior to their child's scan. This is posted to you with the appointment and you must bring the completed questionnaire with you when you come for the scan. The questionnaire may also be downloaded from the MRI website. The questionnaire asks about your child's medical history and helps the MRI department ensure you and your child's safety whilst in the MRI scanning room.

If your child has orthodontic braces and is to have an MRI brain scan, you should contact the MRI Department to see if this might pose any problems. Clothing with metal zippers and studs is discouraged from being worn.

### **All body piercing must be removed.**

The following items are affected by the magnet and are not permitted into the scanning room for safety reasons: watches, pens, keys, jewellery, hair pins, safety pins, mobile phones, credit cards, pagers, radios and CD players.

If you are pregnant, you may accompany your child into the MRI room, but you cannot stay during the scanning.