

What is MRI?



MRI stands for **magnetic resonance imaging**, and it is a kind of scan that can produce detailed pictures of parts of the body, including the brain. It can also be used to show which areas of the brain are working in different activities (e.g. when doing sums) by seeing where the brain is directing most of the blood, since the blood is used to power whichever part of the brain is being used for thinking! The scanner is a big cylinder that you lie inside whilst it builds up a picture of your brain using magnetic fields.

What happens in an MRI experiment?

The MRI scan is run by a Radiographer who is highly trained and works full time scanning people's brains (and we will be there too)! When you arrive you will have to fill out a questionnaire to check whether your child might have any metal in them (for example in medical devices such as pacemakers or other implants). This is because the scanner works by using a magnetic field and so certain magnetic metals are not allowed in the scanning room, although most metals are in fact perfectly safe. The Radiographer will also check with a little metal detector that there are no magnetic bits of metal on clothes or in pockets!

Your child will then go in the scanning room where they will lie down and get comfy on the bed part of the scanner, which then moves so that their head and upper body are inside the cylindrical scanner. They just need to lie still for around 10 minutes while the picture is taken, so should be able to watch a cartoon or something similar on the computer screen to keep them entertained. If your child wants you in the room with them then this should be fine so long as you are also checked over for metal! If they are okay with this, we might see if they are happy to do one quick activity answering some questions shown on a computer screen whilst they are in the scanner, so that we can see which parts of the brain are being used.

Where?

The scanner is located at the Cognition and Brain Sciences Unit on Chaucer Road in Cambridge, near to the railway station and close to the centre of town.

How long does it take?

The main scan only takes 10 minutes, plus another 10-15 mins or so if they would like to try the computer activity, so you will probably need to be at the unit for around 45mins in total.



Are there any risks?

MRI scanning is used all the time in both medical and research settings, and is a very safe imaging technique. No radiation is used and there are no known risks or side effects linked with having an MRI scan once the Radiographer has checked the person over for metal. The only potential problems arise if someone really doesn't like small spaces since the scanner is like going inside a big tube, but we will practice with the children in a special pretend scanner! It can also be quite loud so they will wear headphones to block out the noise.