My baby is having an MRI scan

Neonatal Unit

Patient Information Leaflet
Why does my baby need an MRI scan?
The MRI scan will have been requested by your baby’s paediatric consultant, to help diagnose your baby’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 and bones.

What is an MRI scan?
An MRI (magnetic resonance imaging) 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, CAT scan or ultrasound may be able to give. The MRI scanner is a hollow machine with a tube running horizontally through its middle. Your baby will lie on a bed that slides into the tube (please see figure 1).

Figure 1 – an MRI scanner
Are there any risks associated with an MRI scan?
An MRI scan is a harmless procedure as long as your baby has been prepared and an MRI checklist is completed beforehand. This will check your baby’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 will my baby be prepared for the MRI scan?
Your baby will be prepared by the neonatal nursing team for their MRI scan. They will need to be undressed (left in their nappy) and swaddled in a blanket, for warmth and security, for the scan.

How will my baby keep still during the MRI scan?
An MRI scan can last from 15 to 90 minutes and your baby will need to stay still during the scan. For babies there are two methods of keeping them still – feed and wrap or sedation. This will depend on your baby’s size and age so your baby’s consultant will discuss this with you.

Feed and wrap
This method is used if your baby is too small or too young for sedation. For six hours before the scan, your baby will be starved of food and formula milk. If they are breast fed, they cannot have breast milk for three hours before the scan. Just before the scan they are fed and wrapped in a blanket to settle them to sleep.

Sedation
If your baby is having sedation, they will be given this as medicine by mouth. As for the feed and wrap method, for six hours before the scan your baby will be starved of breast or formula milk. If they are breast fed, they cannot have breast milk for three hours before the scan. Once the neonatal nurses have given them sedation, it can take about 15 to 30 minutes for your baby to fall to sleep. They will be attached to a monitor that continually checks their heartbeat, breathing and oxygen level.

Are there any side effects of sedation?
The most common side effect of sedation is breathing problems, for example, the baby stops breathing temporarily, or has shallow or slow breathing which leads to reduced oxygen levels in the blood. This is why your baby’s consultant will only give sedation if your baby fits the criteria. Some babies suffer sickness but this does not usually last very long.
Can I go with my baby to the MRI department?
You are welcome to accompany your baby to the MRI department, if you are feeling well enough yourself. You will need to remove all metal objects such as glasses, jewellery, belts, and hairclips. Braces and 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. You will be required to complete an MRI checklist when in the department to ensure you are safe to enter the MRI scanning room.

There may be times that you will not be able to accompany your baby, the neonatal nurses will let you know if is not appropriate to attend the scan.

What happens during the MRI scan?
Once your baby is asleep, they will be taken down to the MRI department in their cot, accompanied by a neonatal nurse. They will have their monitoring in place and oxygen will be available if it is needed.

The MRI scanner is operated by a radiographer from outside the room and the neonatal nurse will also be in this room, observing your baby through a window. At times the scanner can be very noisy so cotton wool will be placed over your baby’s ears.

What happens after the MRI scan?
Once your baby has had their MRI scan they will be taken back to the Neonatal Unit. If your baby has had sedation, they will continue to be monitored until they wake up and their heartbeat, breathing and oxygen levels are normal.

Once your baby is fully awake, they can be fed as normal. If they are sick after their milk feed, the neonatal nurse will advise you when you can try and feed them again.

What if the scan is unsuccessful?
Occasionally the feed and wrap process will fail. Your baby could either fail to go to sleep at all or wake up during the MRI scan. If your baby fits the criteria for sedation, the scan will be rebooked for a MRI scan using sedation. If your baby does not fit the criteria for sedation, they will be referred to Birmingham Children’s Hospital for their scan.

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. Once the report is completed, your baby’s consultant will give you the results.
If you have any questions, or if there is anything you do not understand about this leaflet, please contact:
Neonatal Unit on 01384 244364
Your call is always welcome.

This leaflet can be printed or downloaded from:
http://dudleygroup.nhs.uk/services-and-wards/paediatrics-and-neonatology/

This leaflet can be made available in large print, audio version and in other languages, please call 0800 0730510

If you require a translation of the leaflet into the language of your choice, please contact the Information Co-ordinator on 0800 0730510.