

# Information About Your Child's MRI Bedtime Scan with Melatonin



Your doctor has referred your child for an **MRI Bedtime scan**. This will take place in the Imaging Department (also known as Radiology or X-ray department) at the **Royal Hospital for Children**. Please refer to your appointment letter for guidance on which scanner to attend.

## What is an MRI scan?

An **MRI** (Magnetic Resonance Imaging) scan uses giant magnets inside a special machine that looks like a doughnut to take pictures of the inside of the body. Your child will lie on a comfortable bed which slides into the middle of the doughnut to take the pictures. MRI does not use any X-rays to take the pictures and does not have any side effects.



## What is an MRI Bedtime Scan?

An **MRI Bedtime scan** is a technique used on babies and young children to take images without the need for a General Anaesthetic or sedation. If a child is hungry and very tired, they are likely to settle after having a feed and can sleep through the noise of the MRI scanner. As older babies and toddlers are usually at their most tired and have their deepest sleep at bedtime, we find this is the best time.

## What is Melatonin?

Melatonin is a hormone associated with sleep that is produced naturally in the brain.

As older babies and children tend to sleep less throughout the day, and are more aware of their surroundings, it may be harder for them to fall into a deeper sleep for a successful scan. We can therefore give your child a dose of Melatonin when you attend for the scan, which will make their brain think it is time to go to sleep. Our Radiologist can prescribe Melatonin to babies and children **over 6 months**, which we will give to them orally (by mouth) in a small syringe. This is usually around 40 minutes before your child's feed and scan time.

**Please note:** Melatonin will not put your child to sleep. It is **not** a sedative and will only aid them in falling asleep and staying asleep. There are no known side effects, although some children may experience an altered sleep pattern on the evening after their scan.

## What do I need to think about before coming for the scan?

As the scanner has a large magnet inside, please let us know before the scan date if you or your child have any metal inside the body from operations or accidents. In rare cases, we won't be able to carry out the scan if you do not let us know.

Sometimes we need to use a cannula to give contrast dye, which is a bit like having a blood test. If this is required for the scan it should be detailed in your appointment letter with further instructions. If you have any questions regarding this then please call us on the number at the end of this leaflet.

## What should my child wear?

Please dress your child in clothes with no metal buttons or poppers, otherwise we may ask you to change them into a hospital gown.

## Who can attend for the scan with my child?

A parent or guardian who is aware of your child's full medical history must attend to help us fill out our safety checklist, we may need to reschedule the scan if an appropriate adult does not come with the child. Please note that we cannot look after other children you bring while your child is being scanned. If this is an issue, we will ask you to come back on another day.

## What Preparation is there before the scan?

### Preparation at home

Most of the preparation and hard work required for a successful scan is done by you at home. As your child will need to be very still for the scan, we therefore ask that you carry out the following instructions:

It is very important that you **keep your child awake all day** on the day of your appointment, to ensure that they are ready for a deep sleep at bedtime. If your child has had nap before their scan, even in the car, the chances of the scan being successful is greatly reduced and we may have to abandon the imaging. We fully understand that these instructions can be somewhat challenging and stressful with young children and if you have any concerns regarding this then please contact us.

Bring whatever food or drink your child would normally have at bedtime and the Radiographer will advise you of when to give this to carefully time with when the scan will be carried out. Please note that we do not have facilities to warm up any food you bring from home.

Please continue to give your baby/child any medication as normal.

You can also bring a dummy, blanket, comforter or teddy that your child normally sleeps with as long as they do not contain metal, such as batteries. We want your child to feel as 'at home' as possible during their visit to the department.

### Preparation in the department

It is very important that you arrive at the time on your appointment letter. This is 60 minutes before your child's scan to give us time for all the preparation involved.

If you have any questions regarding the preparation of your baby or child please do not hesitate to get in touch with us on the number at the end of this leaflet.

## What does the scan involve?

Once your child has had their feed and you think that they are settled into a deep sleep, we will ask you to lie your child on our scan table. We will swaddle your child to help them to keep still. We will place ear defenders over your child's ears to reduce noise.



We will then position parts of our camera that help to take the pictures. Your child can have a dummy if required during the scan. Some children may wake during the scan but do not worry, we can discuss with the doctor who referred you for the scan and reappoint you for another attempt on another day to complete the scan.

## How long does the scan take?

The scan time itself varies depending on what body part we have been asked to scan and how settled your child is. MRI scans do not tolerate movement and even the slightest of movements can give us 'blurry' pictures. We allocate a time slot of 60 minutes for your child's scan, so you can expect to be in the department for a minimum of 2 hours.



## What happens after the scan?

You are free to go home, there are no side effects from having an MRI scan. If your child required a cannula for the scan, we will remove this in the department. Don't worry, this is easy and pain free and most of our feed and sleep children even stay asleep for this part. Any contrast dye used comes out in the pee but you will not notice it.

## How will I get the results?

The results go to the hospital doctor who referred your child for this scan.

You will not get any results on the day as our Radiologist will need time to look over and report on all the images we have taken.

## Frequently Asked Questions (FAQ's)

- **I thought my child would be having a General Anaesthetic, why has this changed?**

Sometimes the doctor who referred your child for the scan will discuss with you that your child is attending for a scan under General Anaesthetic (GA). When the request reaches us in Radiology, if we think that you meet our criteria to try the scan as a 'feed and sleep' scan then we will always attempt this in the first instance.



- **What are the benefits of trying a Feed and Sleep scan as opposed to a GA scan?**

- Our **GA waiting list is significantly longer than our Feed and Sleep waiting list.** Please note that trying a feed and sleep scan will not affect your position on the GA waiting list.
- **Your child will require to be fasted for a GA appointment.** Anyone who needs an Anaesthetic cannot eat or drink in the hours before their scan, this can be difficult for small children to tolerate and understand.
- **You will be in the department for a significantly longer period of time for a GA scan** (four to eight hours). With a feed and sleep scan, you will most likely be in and out of the department in just over 2 hours.

- **What if my child doesn't sleep/wakes up during the scan, can I try again on another day?**

- **Yes.** Sometimes the babies that attend for our scans don't settle or wake up during the scan. Some parents or guardians feel that the child would settle better at another time or may require more preparation. The Radiographer will discuss your individual case with you.

## Do you have any other questions?

Please call the number below or ask your Radiographer on the day.

A video of our MRI scanner can be found on the What? Why? Children in Hospital website at [www.wwcih.org.uk](http://www.wwcih.org.uk)

**MRI scanner video** - <https://www.whatwhychildreninhospital.org.uk/video-happens-in-mri>

**Cannula video** - <https://www.whatwhychildreninhospital.org.uk/cannula>

## Contact Centre Telephone Number

0141 452 4294     [www.nhsggc.org.uk](http://www.nhsggc.org.uk)

