

Nuclear Medicine Children's Scans

Welcome to Nuclear Medicine

Your child has been asked to attend for a Nuclear Medicine (radioisotope) scan by their doctor. We hope this leaflet will answer some of the questions you may have, but feel free to contact the Department if you need any further information.

What is a Nuclear Medicine scan?

A small amount of radioactivity is used to obtain pictures of specific parts of the body, which will help the doctors to understand your child's condition.

Why is the appointment time so early?

We arrange for your child to attend the paediatric ward (**Bramble Ward**) so that **numbing cream** can be applied before the injection. This does take an hour to work, but should reduce discomfort from the injection.

Being early also enables the paediatric nurse to assess whether sedation may be required for the examination. The scans are quite long (20 to 40 minutes) and it is important to stay still while the scan is taken, which is why we may need to give sedation. The sedation used is not an anaesthetic, just oral medicine to help your child sleep during the scan. Sedation is normally used for children between 6 months and 3 years old.

Please follow any instructions included in the appointment letter regarding feeding as this is important when sedation is being considered.

Does my child need to stop taking any medicines?

For most scans there is no need to stop any regular treatments. If your child needs to stop taking medication for the scan, the appointment letter will tell you.

What is involved?

A small cannula (a tube inserted into a vein using a needle) will be put into a vein in the arm, hand or foot at the place where the numbing cream has been applied. The injection with the radioactive tracer will be given through the cannula. For some scans (MAG3 kidney scan) this is done in the scan room and pictures are taken straight away. For other scans (Bone scan, DMSA kidney scan) it is necessary to wait 2 to 3 hours before pictures are taken, to allow the tracer to absorb into the areas of interest.

If sedation is being used, this will be given by the Bramble Ward staff, and your child will be brought to Nuclear Medicine when they are ready to be scanned. The scan will not start until your child is settled.

Your child will not need to get undressed for the scan. You may stay close during the procedures. The 'Gamma camera' scanner may be very close

during the scan, depending on the area being scanned. This picture shows how it may be set up.



Common scans we perform:

MAG3 Renal scan:

MAG3 Renal scan: This is used to check how well the kidneys are working and draining to the bladder. The scan is usually done with your child lying on a bed. The injection is given and scan starts straight away, running for around 30 minutes. A second injection of a diuretic may be given through the same cannula to increase the flow and check drainage from the kidneys down to the bladder. For more information, see this webpage:

<https://infokid.org.uk/tests-and-diagnosis/mag3-scan/>

DMSA renal scan:

This is used to look at the kidney tissues and check if there has been any damage or reduced function; for example, if your child has had repeated Urinary Tract Infections (UTIs). We normally need to leave at least 3 months after a UTI to make sure the kidneys are not inflamed, otherwise we may get a false result. **Please call us if your child has had a UTI within the last 3 months, or if they develop a UTI after you receive the appointment.** The injection will be done in a clinic room 2 to 3 hours before the scan. If sedation is not being used, you will be able to take your child away once the injection has been given and then come to Nuclear

Medicine when it is time for the scan. The scan usually takes 20 to 30 minutes. For more information, see this webpage:

<https://infokid.org.uk/tests-and-diagnosis/dmsa-scan/>

Bone scan:

This is used to check if there is increased bone growth or destruction. The injection will be done in a clinic room 2 to 3 hours before the scan. If sedation is not being used, you will be able to take your child away once the injection has been given and then come to Nuclear Medicine when it is time for the scan. The scan usually covers the whole body, with additional scans of particular areas if needed. The scans can take up to 40 minutes altogether.

If we are performing a different scan, please contact us if you need more information.

Do I need to bring anything?

We suggest that your child brings a favourite toy, DVD, tablet or book as there can be a long wait between the injection and scan. They may also have these with them during the scan; we can show DVDs while the scan is being carried out.

Is the radiation dangerous?

No. The injection contains a small amount of radioactivity but this is short lived and any risk involved is very small. Your doctor would not consider asking us to carry out the scan unless it was believed that your child would benefit from the information gained. The radioactivity your child receives remains in the body for a short time and is cleared from the body through natural bodily functions, as well as decaying away naturally. Encouraging your child to drink fluids will help remove the tracer more quickly. The radioactivity will last for 24-48 hours (depending on the type of scan).

During this time gloves should be worn to change nappies; all nappies and any wet clothing or bedding should be put to one side. After this time they can be washed or disposed of as normal.

What will happen to the results?

We aim to report examinations as soon as possible. The results will be sent to the Doctor who requested the scan to be done. You will NOT be told the results of the examination at the time of the scan.

More information

All the staff would like to make your visit as pleasant as possible. If you have any questions or concerns, please do not hesitate to contact us:

Nuclear Medicine Department: 01392 402124

Changing the appointment

If you are unable to keep this appointment, please let us know as soon as possible on **01392 402124**. We may then be able to offer this appointment to another patient. A further date and time will then be arranged for you. Please be advised that if you fail to attend the appointment without notifying us, we may need to inform the referring doctor before making another appointment. Please note: If your child, or anyone in the family have had D&V (diarrhoea and vomiting) you will need to contact us to rebook your appointment unless they have been clear for the past 48 hours.

The Trust cannot accept any responsibility for the accuracy of the information given if the leaflet is not used by Royal Devon staff undertaking procedures at the Royal Devon hospitals.

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