

# Nuclear Medicine **MAG3 Kidney Scan**

## Patient Information Sheet

A MAG3 kidney scan is a diagnostic procedure which looks at how well your child's kidneys are functioning. It involves an injection of a small amount of radioactive tracer and imaging with a gamma camera.

### Preparation for your child's appointment

**Please call us with your child's weight the week before the appointment.**

Your child may eat and take their medication as normal.

**In the 24 hour period before the appointment** encourage your child to drink plenty of fluids (preferably water). This will make giving the injection easier. They can use the toilet as often as they need to. Please bring spare nappies if your child uses them.

**Please give your child a drink 30 minutes before their appointment**

We have a DVD player and a selection of DVDs. You may like to bring your child's favourite DVD to watch, especially if you feel that this will help your child to keep still during the scan. For younger children, please feel free to bring any small item which may help them feel more relaxed, such as a teddy, small blanket or a pacifier (dummy).

### Are there any risks from the radioactive tracer?

The radioactive tracer is used as sparingly as possible and the dose given is based on your child's weight. The benefits of this scan far outweigh the small risk from radiation.

The radiation dose your child will receive is similar to the radiation received from natural sources over **3 months**. Drinking plenty of fluids and emptying their bladder or changing their nappy regularly will help to remove the radiation. Older children should sit on the toilet when passing urine. This is to make sure that all the urine gets properly flushed down the toilet.

There are no restrictions for your child spending time with adults after their scan; however, other children and pregnant women have a higher risk from radiation, so they should avoid close contact with your child for **8 hours** after their injection. **For 24 hours after their appointment** your child should sit on the toilet when passing urine. This is to make sure that all the urine gets properly flushed down the toilet as it will be slightly radioactive.

### Pregnancy and Breastfeeding

**If your child is female and over 12 years old they will be asked to complete a form confirming that they are not pregnant.**

Due to the radiation involved, there is a risk to an unborn or breastfed child. Therefore, it is important that you let us know in advance if your child is or may be pregnant or breastfeeding. (Note: this information sheet is given to the parents/carers of children up to the age of 18).

If your child's gender was female at birth and is transgender or non-binary, please inform the Technologist so that they can rule out the possibility of pregnancy or chestfeeding before treatment. This information will not be recorded or shared without consent.

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## How is the scan performed?

Your child's injection will be given through a small plastic tube in a vein (cannula)

- Cannulation for younger children will be in Children's Outpatients **B15**.
- Cannulation older children will be in Clinical Imaging and Measurement Department **B58**.

Numbing cream or spray will be applied to a small area of skin on your child's arm or hand. After a short period of time, a small cannula is inserted into a vein in this area.

- Just before the scan, your child will be weighed and asked to empty their bladder or have their nappy changed.
- Your child will lie on a scanning bed. Babies can lie in a soft foam support to keep them still.
- A small amount of radioactive tracer will be injected through the cannula. This will not make your child feel any different.
- The images will then be taken which will take **up to 1 hour** and it is important that your child remains still during this time. You may remain with your child throughout the scan.
- After **15 minutes**, a diuretic will be injected through the cannula. This is to make their kidneys produce more urine.

## Micturating cystogram

We may need to image your child while they pass urine. This is to give extra information which can be useful to the radiologist when reporting the scan.

If so, your child will be seated on a commode with their back to the gamma camera and pictures will be taken while they pass urine. This will be done as discretely as possible, but a technician will need to be present.

If this image is not required we will ask them to empty their bladder or have their nappy changed. One final picture will be taken which will take 1 minute.

## After your child's scan

For a few hours after your scan, your child may feel the need to pass urine more often than normal due to the effect of the diuretic. The effects of this medicine may last up to 6 hours. Please make sure your child stays well hydrated.

## Results

Results will be sent to the doctor or specialist who referred your child for the scan in 2/3 weeks.

## Travelling after their scan

Some major event/ transport venues have very sensitive radiation detectors. These detectors could be triggered by the small amount of radioactivity remaining in your child's body on the days following the scan. If you are planning to travel with your child within **7 days** following their scan, we recommend that you carry their appointment letter with you.

## Information for other hospitals and healthcare workers

*Within the 4 days following the scan:*

If your child is admitted into hospital (other than the RUH), or if they are cared for by a healthcare worker in your home, please ask them to contact the RUH Clinical Imaging and Measurement Department. Their employer might need to register with the Health and Safety Executive to show that their staff are aware of the small amount of radioactivity that is present for a few days after your scan.

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If you have any concerns or questions about your child's scan, or you need this information in another format such as larger print, please telephone: **01225 824080**

Clinical Imaging and Measurement Department  
Zone B, Department B58  
Royal United Hospitals Bath NHS Foundation Trust  
Combe Park, Bath, BA1 3NG  
01225 824080 | [www.ruh.nhs.uk](http://www.ruh.nhs.uk)

Please contact the Patient Advice and Liaison Service (PALS) if you would like to feedback your experience of the hospital. Email [ruh-tr.pals@nhs.net](mailto:ruh-tr.pals@nhs.net) or telephone **01225 825656**

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