Children’s Services

MAG 3 (kidney) Scan

This leaflet is for children and their parents to give them some more information about MAG 3 scans.

MAG 3 scan

The doctor has asked for your child to have a special kidney scan called a MAG 3 scan. This test shows how the kidneys and bladder are working.

Before the appointment

A tube of EMLA cream may be sent to you in the post with your appointment. This is a local anaesthetic cream which will help make the injection painless. It needs to be applied one hour before the appointment. Put some cream onto the back of both of your child’s hands and cover with the plasters included in the pack. Repeat on the inside of their arms over the bend of the elbow. It is helpful to put it where you can see a vein. Although you are asked to put the cream in four places, this does not mean your child will have four injections; it is to help the doctor choose which vein is the best.

Your child can eat normally before the test but will have to drink plenty of fluids. If you have a baby you may need to bring a feed with you or be asked to breast feed your baby when you arrive.

At the appointment

On arrival your child will be weighed; the amount of radioactivity is calculated according to your child’s weight and is no more than the equivalent of a chest x-ray.

You and your child will be shown to an examination room with a couch where your child will be asked to lie down whilst they are given a small injection of a radioactive substance. There is a camera under the couch which takes a series of pictures of the kidneys and bladder so it is important for your child to lie very still.

Above the couch is a small screen on which it is possible to see a picture of the kidneys and bladder.

The test normally lasts between 20 and 30 minutes.

At the end of the test your child may be asked to empty their bladder into a container and some more pictures may be taken. This is called a micturating cystogram. If this is done the technicians will leave the room and a screen provided to give you and your child some privacy.
You will then be able to go home.

**Following the appointment**

The radioactive substance lasts for only a short period of time and has usually disappeared from the body within 24 hours. During this time please ensure strict hand washing following toileting or nappy changing and ensure that potties (if used) are cleaned thoroughly.

The results of the scan will be sent to the doctor who ordered the test and appointment will be sent to you to discuss the results (usually within one month).

**Preparing your child**

Research has shown that children cope much better with hospital procedures if they are well prepared and informed of what is going to happen. It is therefore important for you to talk to your child and explain in a simple and positive manner about what will happen when they visit the hospital.

Some terms that may help when preparing your child could be:

- magic cream (EMLA) “This will help you not feel it when the doctor gives you the injection.”

- “while you are having your scan it is important to lie very still so that we do not get fuzzy pictures”

- lying still for a story can be practiced at home - playing ‘sleeping lions’ can be a fun way. Remember to bring your book in with you.

**Ultrasound**

An ultrasound scan may also be organised as a further investigation following urinary tract infections.

This does not use any radiation. Sound waves are reflected off the body and give an image of the kidney and urinary tract on a screen (similar to the scan used in pregnancy).

A gel is placed on the abdomen and rubbed over the site with a small hand held device. This gives an image of the kidneys, ureters and bladder and can show if there are any abnormalities or blockages in the urinary tract.

Your child may be asked to drink a quantity of fluid before the test as this helps to make the urinary tract easier to see.

This test last about 15 minutes.
Contacts/further information

If you have any further questions please contact the nuclear medicine department on 01223 217145

We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site.
For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Other formats:

If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk.
Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

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