For children having a Renogram scan

Royal Berkshire NHS Foundation Trust

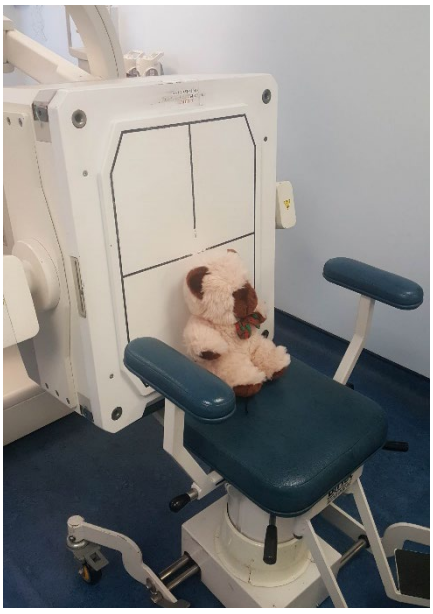
A renogram is a nuclear medicine scan of the kidneys to see how well each kidney is working, and whether urine passes from the kidneys down to the bladder without obstruction. Your child may be given a diuretic, which will make their kidneys empty faster.

Is it safe for my child to have the scan?

For this scan it is necessary to inject a small amount of radioactive tracer, called a radiopharmaceutical, in order to take the pictures. The dose is calculated according to your child's weight. The small risk from this radiation dose is outweighed by the valuable information that will be gained by having the scan. There is a table at the end of this leaflet that gives the radiation risk from various sources. Please call if you would like any more information. All investigations are vetted by the Medical Physics Team to make sure this is the appropriate test for your child.

Preparation for the scan

Unless your doctor has told you to restrict their fluid intake, please make sure that your child drinks plenty before the Renogram (approximately three cups before coming to the department and three more once you are here). Your child may eat normally. If your child is diabetic or if they are taking diuretic medicines (water tablets) please let us know. You can take any other medicine as normal.



What happens during a Renogram?

Before arriving at the Medical Physics Department, you will be given a time to go to Kempton Day Bed Unit (the children's ward) to have a cannula inserted into your child's arm or hand. **After this, you should come to the Medical Physics department in North Block, Level 1.**

The pictures are taken by a special machine called a gamma camera. Depending on their age, your child will either be sitting on a chair with the camera behind them or lying down in a small cradle. Your child will not have to get undressed. A small amount of radioactive tracer will be injected into the cannula in their arm or hand.

The scan takes 45 minutes and your child will need to sit or lie still during this time whilst the gamma camera takes a series of pictures of the tracer passing through your kidneys.

Sometimes it is also necessary to give another injection of a diuretic, a substance which makes the kidneys produce more urine, but your child will be able to go to the toilet when they need to.

After your scan

If your child is also having an IDC scan, this will follow immediately after the Renogram.
After the scan there will be some radioactivity left in the child's body but this will not present a significant risk to other people. The radioactivity will soon disappear, but if they continue to drink plenty of liquids this will help clear the radioactivity more quickly. The effect of the diuretic will wear off after a few hours, but your child may feel the need to go to the toilet more frequently or urgently. Drinking plenty of fluids will replace what has been lost in the urine.

For infants: nappies should be disposed using a nappy bag and placed in a bin and hands washed with hot water and soap. Please do this for 24hours following the scan.
It is very unlikely that your child will feel any other side effects after the scan, but if you think that they have please let the Medical Physics Department know. After the renogram they may continue all normal activities unless you have been advised otherwise.

The results

The Renogram will be looked at by a specialist doctor, who will issue a report. The report will be sent to the doctor who requested the scan and they will be able to tell you how the result of the Renogram affects your child's care.

Contacting us

Medical Physics Department, Level 1 North Block, Monday to Friday, 9.00 am to 5.00pm.
If you have any questions about your child's treatment, please ask the staff looking after you or telephone 0118 322 7355 or email: rbb-tr.physics@nhs.net

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

RBFT Physics & Clinical Engineering Department, January 2022.
Next review due: January 2024

The table below is a simple guide to the levels of radiation risks for various examinations. These are measured in millisieverts (mSv).

Source of exposure (using RBFT local diagnostic reference levels (DRLs) for Nuclear Medicine)	**Dose**
Having a chest x-ray	0.014 mSv
Taking a transatlantic flight	0.08 mSv
MAG3 Renogram (Adult dose only. Children's doses are weight-based up to a maximum of 0.3mSv)	**0.3 mSv**
UK average annual radiation dose	**2.7 mSv**
Average annual radon dose to people living in Cornwall	6.9 mSv