NHS
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Having a DMSA kidney scan as an outpatient

A DMSA kidney scan is a nuclear medicine test of the kidneys. It can be used to detect any damaged areas of the kidneys, for example as a result of repeated urinary tract infections. It is also able to see whether both kidneys are working equally well.

Is it safe for me 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 small risk from this radiation dose is outweighed by the information that will be gained by having the scan. There is a table of radiation risks at the end of this leaflet. Ask if you want any more information. All investigations are vetted to make sure this is the appropriate test for you. If you don't understand why you need to have this scan please speak to the doctor who referred you.

For female patients

If you know that you are pregnant, or there is any chance that you may be pregnant, please contact the department where you will be having the scan. **Do this as soon as possible as the scan can be postponed if it is not urgent. Also contact the department if you are breastfeeding**, as we may give you special instructions.

Preparation for your scan

There are no special preparations for a DMSA kidney scan. You can eat, drink and take any medicines as normal.

Your injection

A small amount of radioactive tracer will be injected into a vein in your arm or hand. You may have had a blood test in the past. This is much the same. You may feel the 'pinprick' of the needle a bit, but that is all.

After the injection you will be asked to wait for four hours before the pictures can be taken. During this time you can leave the department if you wish. You can eat and drink normally.

Your scan

Before the scan you will be asked to go to the toilet to empty your bladder. You will not have to get undressed, but you will be asked to remove any metal objects like a belt.

The scans are taken by a special machine called a gamma camera. This is not a tunnel, but the camera detector will come close to you. You will not be left on your own – there will always be someone immediately available. You will be asked to lie flat on your back and the scan usually

takes about 30 minutes. It is very important that you keep still during this time. If you think that you will find this difficult please speak to the Nuclear Medicine Department before your appointment.

After your scan

It is very unlikely that you will feel any side-effects after the scan, but if you think that you have, please let the Medical Physics Department know. You may continue all your normal activities unless you have been advised otherwise. After your scan there will be some radioactivity left in your body but this will not present a significant risk to other people around you. The radioactivity in your body will soon disappear, but if you continue to drink plenty of liquids this will help clear the radioactivity more quickly.

Your results

Your DMSA kidney scan will be looked at by a specialist doctor, who will issue a report. The report will be sent to the doctor who requested your scan rather than to your GP. This is because the doctor who requested your scan will have all the results from other tests and will be able to tell you how the result of your DMSA scan affects your 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 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 2024.
Next review due: January 2026

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
DMSA kidney scan (adult dose)	**0.7 mSv**
UK average annual radiation dose	**2.7 mSv**
CT scan of the chest – CT scan of whole spine	6.6 mSv – 10 mSv