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Having a kidney function test as an outpatient

A kidney function test, otherwise known as Glomerular Filtration Rate test (or GFR), is generally considered to be the best way of assessing kidney function. The test is often used before, and sometimes during, chemotherapy sessions to monitor kidney function. It is very important to know the level of kidney function before prescribing some chemotherapy drugs.

Is it safe for me to have the scan?

For this test, it is necessary to inject a small amount of radioactive tracer, called a radio-pharmaceutical. The small risk from this radiation dose is outweighed by the information that will be gained by having the test. There is a table at the end of this leaflet that shows some common radiation exposures to put this into context. Please ask if you want any more information. All investigations are vetted to make sure this is the appropriate test for you. If you do not understand why you need to have this test, please speak to the doctor who referred you.

Before the test

Preparation before the test is as follows:

- Avoid excessive amounts of caffeine the day of the test. This means you can drink your usual amount of tea / coffee or other caffeinated drinks but not more than your usual amount. For example, if you usually drink a cup of coffee in the morning, you can still do this on the day of your test.
- Avoid high protein meals for breakfast and for the duration of the test. Examples of high protein foods include; eggs, Greek yoghurt, milk and meat. Alternative low protein breakfasts include fruit, pancakes and toast with low protein toppings such as butter, honey or jam etc.
- Drink plenty of water the morning of and during the test.
- Avoid heavy exercise the day before and during your test.

You do not need to stop any medication for this test.

What happens during the test?

The test takes approximately four hours. When you arrive in the department, we will give you a radioactive injection into a vein in your arm or hand. After this, there will be a two-hour gap. We will ask you to return to the department for a blood test at two, three and four hours after the injection. You can spend the time in between the injection and blood tests as you please and you are not required to stay in the hospital. Please keep well hydrated during the test and eat as normal. In some cases, you may be required to return the following day for an extra blood test at 9am.

After your test

It is very unlikely that you will feel any side-effects, 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 test, 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.

The results

The results of this test will be sent to your consultant before they are able to prescribe your chemotherapy (if this is why the test is being done). Your clinician will discuss what your test results mean.

Contacting us

Medical Physics Department, Level 1 North Block, Monday to Friday, 9am to 5pm.

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, February 2025. Next review due: February 2027.

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
GFR test with Tc-99m DTPA	**0.05 mSv**
Taking a transatlantic flight	0.08 mSv
UK average annual radiation dose	**2.7 mSv**
CT scan of the chest – CT scan of whole spine	6.6 mSv – 10 mSv