Fact sheet

Renal scan

This fact sheet tells you what a renal scan is, and what is involved. Please read it before having your scan. If you have any questions, ask your doctor.

What is a renal scan?

A renal scan is a nuclear medicine test designed to see how well your kidneys are working. A small injection of a radiopharmaceutical (radioactive tracer) will be given to you, usually in your arm through a thin plastic tube called a cannula. The tracer can be detected by a special camera, which takes pictures of the kidneys.

There are different types of renal scans.

A mercaptoacetyltriglycine (MAG3) or diethylenetriaminepentaacetate (DTPA) scan looks at the flow of the radioactive 'tracer' through your kidneys into your bladder. It can help show if there is a blockage between your kidney and your bladder.

Sometimes, a DTPA scan is combined with a blood test, called a glomerular filtration rate (GFR) test. If you are taking special medication or chemotherapy, this test will help show if your kidneys are still working properly.

A DMSA looks at the size, structure and placement of your kidneys. It can help see if there is an infection in your kidneys or scarring on your kidneys after an infection.

Procedure

There is no special preparation for a renal scan.

You should tell your doctor and the imaging staff if you have any allergies, are breastfeeding, are pregnant or think you may be pregnant.

For a MAG3 or DTPA scan, you will be given water to drink before the test. The special camera takes pictures immediately after your injection to see exactly where the radioactive tracer travels from your blood into your kidneys and down to your bladder. This may take up to 60 minutes.

For a DMSA scan, the radioactive tracer travels to your kidneys over three hours. Once the injection is done you may leave the department and return at the time you have been told. Then images will be taken of your kidneys. This can take up to 45 minutes.

For a GFR test, the radioactive tracer travels to your kidneys but no images are taken. Three blood tests are taken at two hours, three hours and four hours after the injection.

After the procedure

The images or blood results are assessed and the results given to your treating doctor. You should not have any issues after your renal test.

Risks involved

All nuclear medicine tests involve some exposure to radiation, but the amount is very small and the risk of side effects is very low. Allergic reactions are very rare and almost always minor.

For more information

Nuclear medicine: Answering your questions by the Australian Nuclear Science and Technology Organisation: www.ansto.gov.au/cs/groups/corporate/documents/webcontent/mdaw/mdax/~edisp/acstest_038604.pdf

InsideRadiology by the Royal Australian and New Zealand College of Radiologists: www.insideradiology.com.au

The Australian Radiation Protection and Nuclear Safety Agency: www.arpansa.gov.au

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