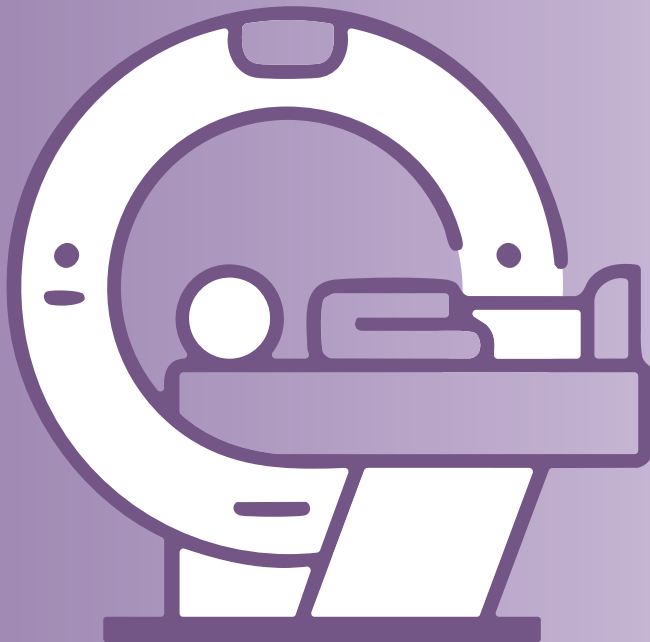




RENAL DMSA SCAN

PATIENT EDUCATION

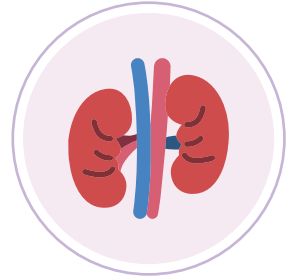


Renal DMSA Scan

What is Renal DMSA Scan?

A Renal DMSA scan is a specialised tomographic imaging test **used to evaluate kidney tissue abnormalities**.

The scan uses a **small amount of a radioactive tracer called Tc-99m dimercaptosuccinic acid (99mTc-DMSA)**. This tracer attaches to the proximal tubular cells in the renal cortex (the outer part of the kidneys) about three hours after injection, allowing clear visualisation of kidney tissue and helping your doctor assess any abnormalities.



Advantages of Renal DMSA Scan



1 Detects Kidney Scarring

The DMSA scan is very good at spotting kidney scarring, which can happen after repeated or severe urinary tract infections (UTIs), especially in children.

Diagnoses Acute Infections

It helps confirm acute pyelonephritis (a type of kidney infection) by showing areas in the kidney with reduced DMSA uptake, which indicates inflammation.



3 Diagnoses Congenital Abnormalities

It helps detect congenital abnormalities such as renal hypoplasia (when a kidney is smaller or underdeveloped since birth).

High Sensitivity in Children

This scan is more sensitive than a regular ultrasound for detecting kidney damage caused by UTIs in children.



5 Lower Radiation Exposure

Compared to a CT scan, the DMSA scan gives less radiation, making it a safer option for children when checking for renal scarring.

Risk and Limitation

The scan uses a very small amount of radioactive tracer that emits gamma rays, which are similar to X-rays. The radiation dose is very low and is generally considered safe.

Some patients may experience slight discomfort, pain, or redness at the injection site. Although rare, mild side effects such as headache or allergic reactions can occur, but they are usually temporary and not serious.



How is Renal DMSA Performed?

1 Radioactive Tracer Injection



A small amount of the **radioactive tracer Tc-99m DMSA** will be injected into a vein in your arm.

After the injection, you will wait for about **3 hours** to allow the tracer to collect in the kidney cortex. You may eat light meals and move around normally during this waiting period.

Imaging

2

A gamma camera will be positioned close to your abdominal area to take pictures of your kidney. The camera will slowly rotate around your body for a 3D image. It is very important to not move during the scan.

The entire scanning process takes approximately **30 minutes** to complete.





Preparation for the Scan

No fasting or special diet is required before the scan. It is important to stay well-hydrated by drinking plenty of water before the procedure.

For children under five years old, mild sedation may be needed to help them stay still during the scan. In such cases, **fasting for at least two to three hours before the procedure** is required.



After Scan Precaution

After the scan, the radioactive material will naturally leave your body through urine. It is recommended to **drink plenty of water** after the procedure to help flush the material out more quickly.

It is advisable to **keep about 1 meter of distance from other children** for the rest of the day.



When Will You Get the Reports?

Once the scan is completed, the images will be reviewed and interpreted by our doctor-in-charge. In most cases, the report will be available on the same day.



Pregnancy and Lactation

If you are pregnant or suspect you might be, please inform our staff before the procedure, as Nuclear Medicine scans are not allowed during pregnancy to prevent radiation exposure to the baby.

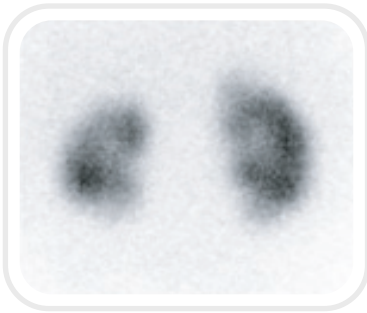
For breastfeeding mothers, it's commonly advised to **stop breastfeeding for 24 hours** after the scan and discard the milk during this period.



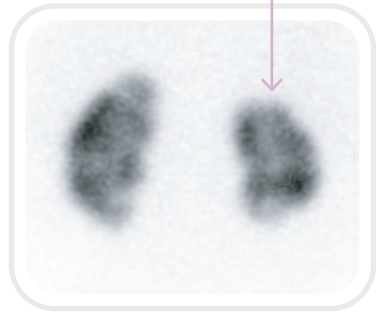
Renal DMSA Scan Images



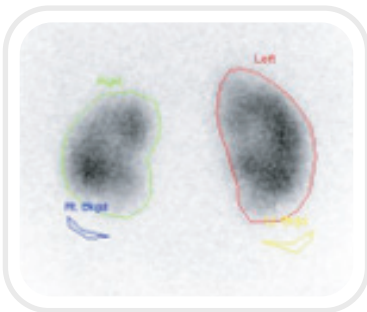
Renal scarring appears as the **"cold spots"** with reduced radiotracer uptake



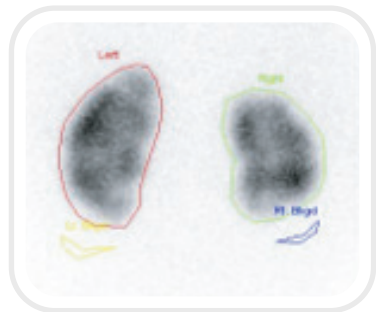
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The Nuclear Medicine Centre is located at:
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Operation Hours

Mondays-Fridays 8.30am - 5.30pm

Saturdays 8.30am - 12.30pm

Closed on Sundays and Public Holidays