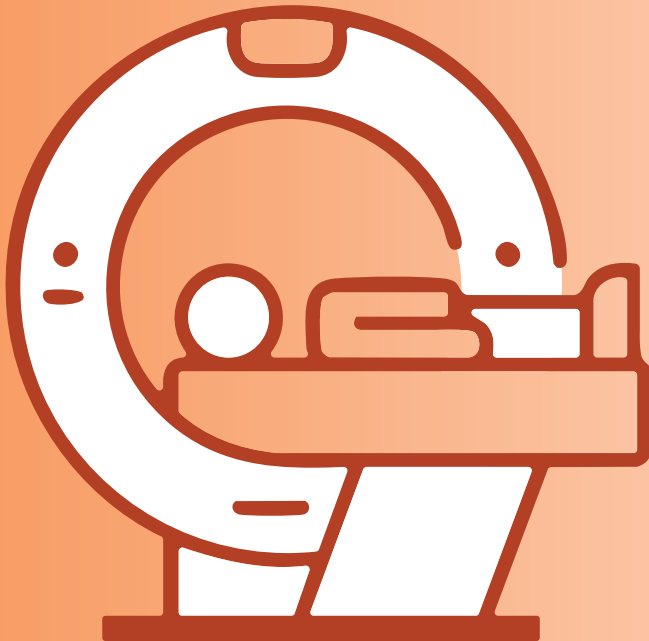




RENAL DTPA/ MAG3 SCAN

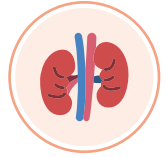
PATIENT EDUCATION



Renal DTPA/ MAG3 Scan

What is Renal DTPA/ MAG3 Scan?

A Renal DTPA/MAG3 scan is a special imaging test used to **assess how well your kidneys are functioning and to examine the structure of your kidneys, ureters, and bladder**. This test involves the use of a small amount of radioactive material to create detailed images of the kidneys.



The **substance 99mTc-DTPA** is filtered by the kidneys and helps measure how effectively they filter blood. Another substance, **99mTc-MAG3**, is cleared more efficiently by the kidneys via active tubular secretion. Because of this, 99mTc-MAG3 is usually preferred, especially for patients who may have urinary tract outflow blockages or reduced kidney function.



Advantages of Renal DTPA/MAG3 Scan



1 Helps Diagnose Kidney Problems

This scan aids in identifying specific renal pathologies such as acute tubular necrosis (ATN), hydronephrosis (swelling of the kidney due to urine build-up).

2 Detects Blockages

The scan can find any blockages that stop urine from flowing normally from the kidneys to the bladder.



3 Safe for Most Patients

This scan is safe even for people who are allergic to regular iodinated X-ray contrast or who have impaired kidney function.

4 Dynamic Imaging and Blood Flow Assessment

This scan provides real-time images that show blood supply to the kidneys and production of urine and clearance.



5 Monitors Kidney Transplants and Injuries

It is used to assess the function and blood supply of a transplanted kidney and to evaluate potential injury to the kidney to ensure the organ is healthy and functioning properly.

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.

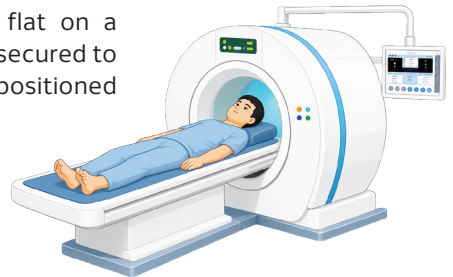


How is Renal DTPA/MAG3 Performed?

1 Imaging

During the scan, you will be asked to lie flat on a scanning couch, and your body will be gently secured to avoid movement. A gamma camera will be positioned close to your abdomen.

A small amount of radioactive substance, **either Tc-99m DTPA or Tc-99m MAG3**, will be injected into a vein in your arm, and the dynamic scan will begin immediately. This scan takes about **40 minutes**, and it is important to remain as still as possible to ensure accurate images.



Radioactive Tracer Injection

2



A medication called **furosemide (Lasix)** is given, usually around **20 minutes after the first injection**, to help your kidneys produce more urine. This helps identify any blockages in the urinary tract. The medication will be injected through the same site as the first injection.

After the scan, you may be asked to empty your bladder and return for a post-void scan. The entire procedure usually takes about **1 hour** 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.

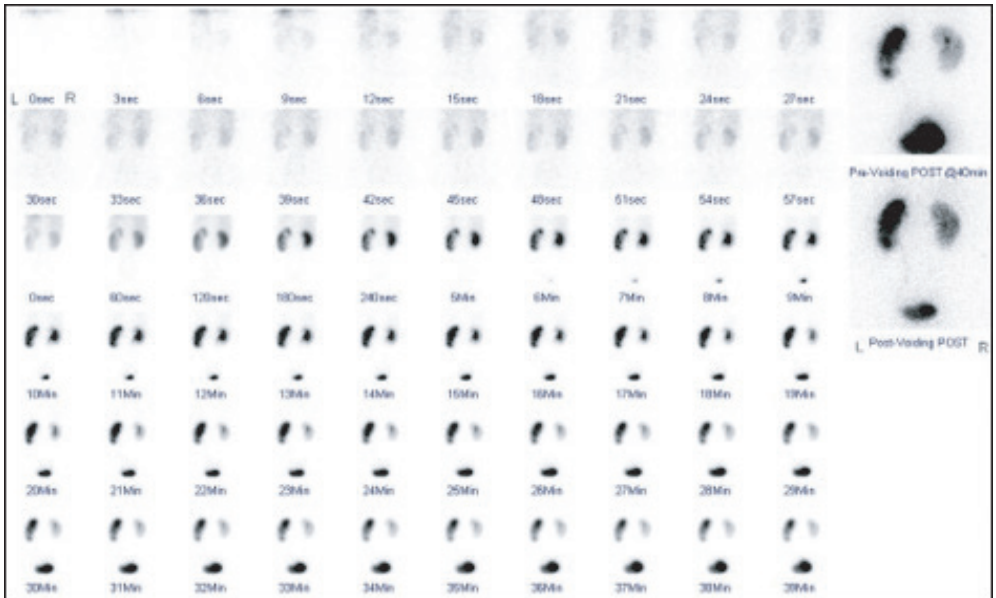
For breastfeeding mothers, it's commonly advised to **stop breastfeeding for 24 hours** after the scan and discard the milk during this period.



Renal DTPA/MAG3 Scan Images



No clearance of tracer from the kidney indicates **obstruction**.



For more information, kindly contact us at:

☎ +603-7494 1017

📄 +603-7491 1483

✉ smc@sunway.com.my

The Nuclear Medicine Centre is located at:
Basement, Tower C

Operation Hours

Mondays-Fridays 8.30am - 5.30pm

Saturdays 8.30am - 12.30pm

Closed on Sundays and Public Holidays