

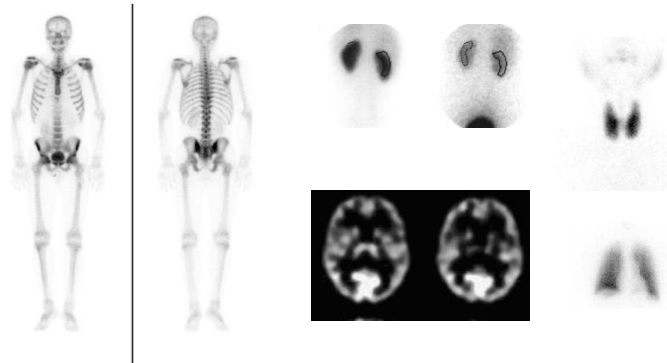


# KERNGENEESKUNDE / NUCLEAR MEDICINE TYGERBERG HOSPITAAL / TYGERBERG HOSPITAL

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[www.sun.ac.za/nuclear](http://www.sun.ac.za/nuclear)



## PATIENT INFORMATION



Welcome to Nuclear Medicine, the division at Tygerberg Academic Hospital where scintigrams (isotope scans) are performed. All examinations are carried out after the administration of radionuclides (radio-isotopes). Radionuclides are usually bound to a special compound, which concentrates in the organ or part of the body to be examined.

### THE STAFF

Our staff consists of doctors, radiographers, nursing staff, a medical physicist, a radiopharmacist, porters and administrative personnel. Each one has a special task to ensure that the time that you spend with us is as pleasant and beneficial as possible. If you have any questions, please do not hesitate to ask one of our staff members.

### EXAMINATIONS

Each examination follows a specific procedure. Most of the examinations require an intravenous injection. This contains tiny amounts of medication and should not cause side-effects. For certain examinations, blood has to be drawn, for others a capsule needs to be taken or a radioactive gas inhaled.

The administered radionuclide circulates through your body to those areas or specific organs to be examined. The compound emits small quantities of radiation, which can be detected by a special machine, (e.g. a gamma camera). The images that are obtained are reported by a specially trained doctor. A report of the examination will be sent to your referring physician.

### EQUIPMENT

A variety of equipment is used for the examinations. The one most generally used is the gamma camera. After the radiographer has properly positioned you, you will have to remain still while the images are obtained.

## **WHY WAIT?**

From the time that the injection is administered you could be asked to wait for as long as 3 hours. Certain examinations may take a whole day. Please be patient and do not leave the department unless the radiographer has informed you that the examination has been completed. In most cases, you will have to wait until the scintigram has been processed and shown to the doctor. This is to ensure that an optimal study is obtained and if no more images have to be taken.

For certain studies you will have to return to the department at a specific time and/or on different days. Please be punctual. The studies cannot be interpreted if the examination is incomplete.

The **division** currently has a high workload and limited equipment. This may mean unforeseen delays. All patients arriving on time for their examinations will however undergo their examination. We suggest that you bring along a newspaper, book, needlework and toys for children to occupy your time.

## **WHAT ABOUT RADIATION?**

Many people are very conscious of the dangers of radioactivity. A frequent question is: "How much radiation will I receive?" Be assured that our staff is well trained in radiation safety procedures. The dose of radioactivity that each patient receives is strictly controlled and measured with instruments which are regularly calibrated. The quantity injected corresponds to internationally accepted standards. In fact, the amount of radiation that you will receive is usually less than in corresponding X-ray examinations such as a CT-scan.

## **DO'S AND DON'T'S**

1. Drink fluids as much as possible to enable the radioactivity to be excreted by the kidneys and bladder as quickly as possible. This is especially important for patients having a bone scintigram or renogram.
2. You may eat and drink before and after the injection, except when you have been instructed to fast from the night before the examination. For certain examinations you have to refrain from using specific medication or food.
3. You may continue with your normal daily activities.
4. Mothers with small children should preferably hold them as little as possible on the day of the examination.
5. If you are **BREASTFEEDING**, please inform us!!! For certain investigations the baby may not be breastfed for a prescribed period.
6. Do not ask the radiographer for a report on the scintigram. They are not in the position to tell you. The results of the examination will be sent to your referring physician who will then discuss the results with you.

**NB: If you are PREGNANT or suspect that you are pregnant, inform your doctor. Radiation examinations are normally not performed on pregnant women. Please inform our staff as well, before you receive the radioactivity.**

## AVERAGE DURATION OF NUCLEAR MEDICINE PROCEDURES

Study	First visit	Waiting time	Next visit
Bone: Adults * Children#	30 min	3 h 2 h	90 min
Gated Blood Pool Scan	2 h		
GFR Determination	50 min	4 h	10 min every h
Iodine whole body	1½ h##	24 h	90 min
Labelled white blood cells	30 min	2 h 2-3 h next day	60 min 60 min 60 min
Liver *	60 min		
Lung	60 min		
MIBI (rest)	2 h		
MIBI (stress)	2 h	3 h	90 min
Parathyroid	140 min	15 min	45 min
Renal scan DMSA	30 min#	3 h	45 min*
Renogram (kidney)	60 min		some-times
Sentinel node imaging	45 min	2-4 h	30 min
Thyroid	15-45 min	3-4 h##	30 min
Follow up	30 min	3-4 h##	30 min

(min = minutes; h = hours)

- (\*) If additional views like tomography are necessary, extra time will be required. Please bear that in mind.
- (#) It may take longer in small babies/children, as an intravenous line (drip) must first be set up.
- (##) A blood sample will be taken for laboratory investigations. There is a waiting period to receive the results. This will avoid a second visit on another day to get the results of the blood tests.

### **FIND US:**

If you have any questions, please do not hesitate to ask.

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