



## **Introduction – Nuclear Medicine**

Nuclear Medicine is a type of diagnostic imaging that uses radioactive isotopes, cameras and computers to view the body. Images are produced through the detection of energy emitted from the radioactive substances given to the patient. Different radioactive isotopes are absorbed differently by various parts of the body allowing doctors to isolate specific organs and bodily functions.

Nuclear Medicine enables doctors to view the physiological function of the body including blood flow and organ function, e.g. kidney, thyroid, lungs, heart, bowel, etc.

## **Procedure**

### **Preparation**

Preparation will vary by procedure. You will be advised of your preparation instructions prior to your appointment.

### **How it Works**

Prior to the procedure the patient is given a radioactive substance by injection, inhalation or orally. Depending on the isotope, it may take a short time or several hours before imaging can begin. The patient lays on a table where a special camera is situated for capturing the images. The procedure itself is painless and on average takes between 20 – 45 minutes. There may be some discomfort from the insertion of the IV and the need to lay still for somewhat long periods of time.

### **Benefits**

The main benefit of nuclear medicine is the ability to view physiological functions in process and the detection of tumours. The procedure itself is pain free and non-invasive and allergic reactions to radioactive substances are very rare.

### **Risks**

The patient is exposed to a small amount of radiation similar to that of a regular x-ray. Pregnant women should not be exposed to radiation whenever possible and so should avoid nuclear medicine procedures. There is a very small risk of allergic reaction to the radioactive substances.

### **Referrals**

Referral required.

Appointment required: you will be contacted to arrange a date and time.

### **Results**

A radiologist, who is a physician specifically trained to supervise and interpret radiology examinations, will analyze the images and send a report to your referring physician, who will share the results with you.

### **Language**

If the patient has difficulty understanding English, an interpreter needs to accompany the patient.