

WHAT ABOUT SAFETY?

EVERY PRECAUTION IS TAKEN

Exposure to radiation is:

- **LOW**

Only small quantities are used for diagnosis.

- **SHORT**

The radiopharmaceuticals lose most of their radioactivity within hours. The compounds are quickly eliminated from the body.

- **CAREFULLY CONTROLLED**

Facilities, equipment and materials meet strict safety standards. All personnel are experienced, highly trained and safety conscious. We have passed the Australian and New Zealand Society of Nuclear Medicine accreditation requirement for training and IANZ accreditation.

NOTE

Some procedures are restricted during pregnancy because a safe dose for a mother may be too high for the foetus. **Please inform the technologist if you are or could be pregnant.** Ask our staff if you have any fears, doubts or worries. Our job is to help you.

So...

NUCLEAR MEDICINE IS AN IMPORTANT DIAGNOSTIC TOOL

Nuclear Medicine is located at Pacific Radiology's Wakefield Hospital Branch:

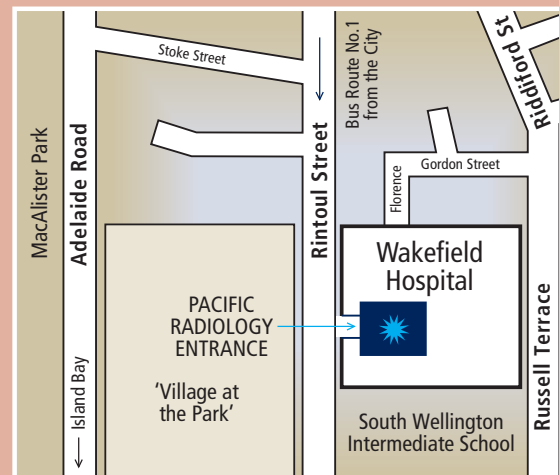
99 Rintoul Street
Newtown
Wellington

Telephone: (04) 978 5535 (appointment co-ordinator)
Facsimile: (04) 978 5501
Email: appointments@pacificradiology.co.nz



HOW TO GET THERE

WAKEFIELD Newtown, Wellington



Pacific Radiology

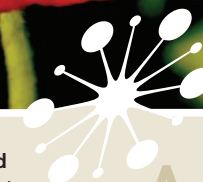
www.pacificradiology.co.nz



Pacific Radiology

NUCLEAR MEDICINE

Patient Information



Pacific Radiology Ltd
Wakefield Hospital Branch
99 Rintoul Street
Newtown
Wellington

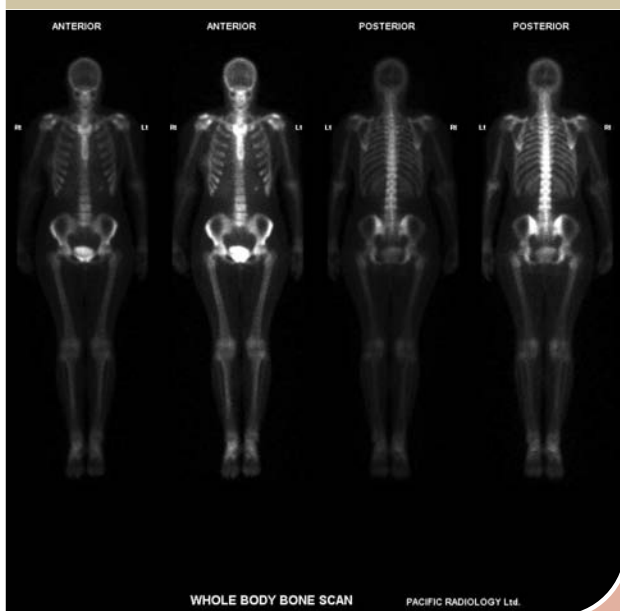


PARTNERSHIPS IN MEDICINE

WHAT IS NUCLEAR MEDICINE?

Nuclear Medicine uses radioisotopes to map organ function and structure, providing unique information about your body.

A normal whole body scan



WHY IS NUCLEAR MEDICINE IMPORTANT?

It helps diagnose disease earlier to make treatment more effective. It is the best early warning system for certain kinds of thyroid disease, tumours, bone changes etc. Nuclear Medicine is an extraordinary medical tool!

Pacific Radiology has continually upgraded its equipment to provide a high quality service. The current system, the GE Hawkeye VC, is the most advanced gamma camera in New Zealand.

HOW DOES NUCLEAR MEDICINE WORK?

The technology is complex. Most of this is not evident to the patient. The patient is in the care of the highly trained technologist all the time. Generally the procedures follow these four basic steps:

1. THE PATIENT

is given a radioactive compound (called a radiopharmaceutical). This is introduced into the body by injection, usually given via a small needle into a vein in your arm. Different compounds are used to study different parts of the body.

2. THE COMPOUND

travels through the body and concentrates in the organ of interest, using the body's natural metabolism. The compound is continuously giving off low energy gamma rays (invisible radiation), which make it possible to show the location of the compound in the body. The radiopharmaceutical will remain radioactive for a very short time.

3. SPECIAL EQUIPMENT

called a 'gamma camera' detects the gamma rays and uses this information to create images of the area of the body being studied. This camera is a combination of a low dose CT scanner and a gamma camera which provides accurate localisation of the pharmaceutical in the body.

4. THE RESULTS

are interpreted by a radiologist who looks to see if the part of the body being studied is functioning and structured properly. This information may be combined with results from x-rays and other tests, for example CT, MRI or ultrasound, to obtain a more complete analysis of your condition. The report is then sent to your doctor.

For further information contact us on:

(04) 978 5535

THE MOST COMMON SCANS PERFORMED ARE:

BONE SCANS

...used to detect areas of bone growth, fractures, tumours, infection of bone and its blood supply. It is the most sensitive test to detect tumour spread, for example from breast cancer that may go to bones. Nuclear Medicine is very sensitive but may not be specific, i.e. it shows there is a problem but does not show what the problem is, for example tumour or arthritis. It is therefore common for us to ask that other tests such as x-rays be done to finalise the report.

Procedure

A radioactive bone-seeking material is injected into the bloodstream, where it is carried to the bone. Some images may be taken straight after the injection. You will then be given a time to return to the department 2-4 hours later. These images take approximately 1 hour to obtain. There is no preparation. During the scan you will be asked just to lie quietly, relax and breathe normally. After the test there are no special requirements.

RENAL STUDIES

... used to assess the anatomy, function and blood supply of kidneys.

THYROID STUDIES

... to examine the function of the thyroid gland which may be overactive, underactive or enlarged.

BILIARY STUDIES

... used to assess the function of the gall bladder which may require delayed imaging after a small fatty meal.

CARDIAC STUDIES

... used to assess the blood flow to the heart and check for coronary artery disease. This will require a study to be performed at rest and another 4 hours later, after the heart has been stressed. A preparation letter will be sent from the Wakefield Heart Centre.

Feel free to bring along a tape or CD of your favourite music to listen to while you have your scan.