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From 21st May 2011

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and

Sunshine Coast Radiology  
[www.scradiology.com.au](http://www.scradiology.com.au)

Newsletter 2011 – Autumn



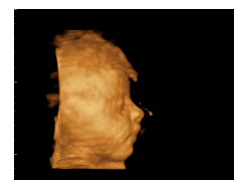
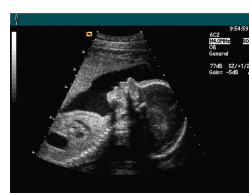
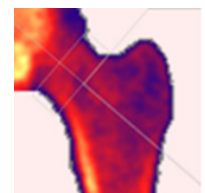
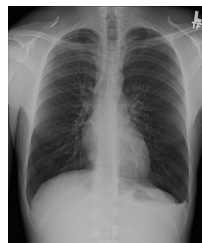
Gladstone Xray  
and Ultrasound  
(GXU)

*Gladstone's newest  
Medical Imaging Practice*

We extend a special thank you to all of you who have supported Gladstone Xray and Ultrasound over the last 2 and a half years. We look forward to continuing provide a streamlined and efficient service all our referrers, in the future.

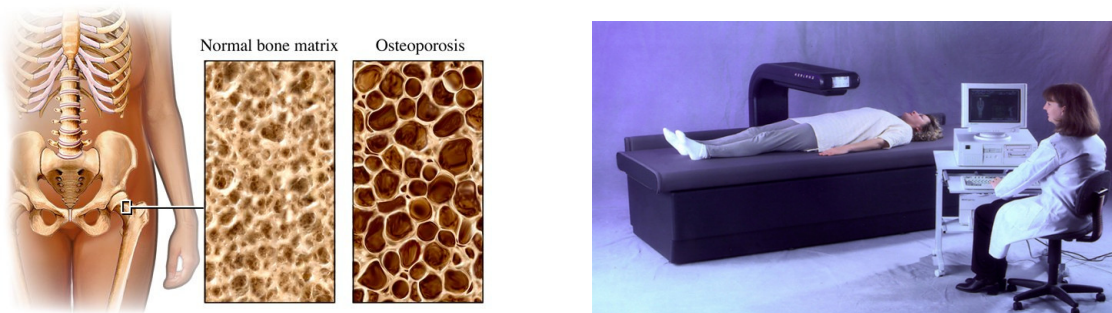
## SOME UPDATES

- Open SATURDAY MORNING from the 21<sup>ST</sup> May
- ECHOES are now performed once per fortnight and are ALL BULK BILLED
- BONE MINERAL DENSITOMETRY (BMD) is available daily with Bulk Billing for all eligible studies (Medicare rules apply)
- VENOUS and ARTERIAL Studies are performed here including UPPER AND LOWER LIMBS, AORTIC MESENTERIC and RENAL arteries
- VARICOSE VEIN studies are now available with mapping reports
- WEB ACCESS of x-rays and Scans is now possible on any GP or other referrers' PCs
- We welcome to the team - Bridget Radiographer/ Sonographer



# BONE MINERAL DENSITOMETRY

Dual-energy x-ray absorptiometry (DXA or DEXA) is today's established standard for measuring bone mineral density (BMD)



Bone density testing is **STRONGLY RECOMMENDED** if you:

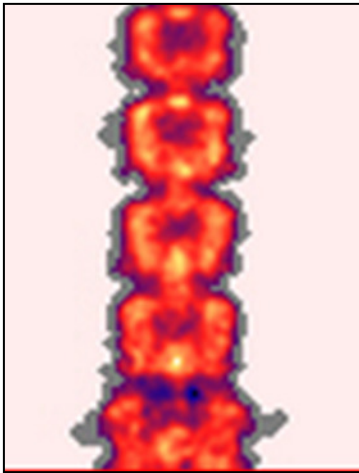
- wish to obtain a baseline measurement of your bone density or strength
- are a post-menopausal woman and not taking oestrogen.
- have a personal or maternal history of hip fracture or smoking.
- are a post-menopausal woman who is tall (over 165cm) or thin (less than 45 kg).
- are a man with clinical conditions associated with bone loss.
- use medications that are known to cause bone loss, including corticosteroids such as Prednisone, various anti-seizure medications such as Dilantin and certain barbiturates, or high-dose thyroid replacement drugs.
- have type 1 (formerly called juvenile or insulin-dependent) diabetes, liver disease, kidney disease or a family history of osteoporosis.
- have high bone turnover, which shows up in the form of excessive collagen in urine samples.
- have a thyroid condition, such as hyperthyroidism.
- have experienced a fracture after only mild trauma.
- have had x-ray evidence of vertebral fracture or other signs of osteoporosis.
- low body weight or BMI
- are Caucasian Asian or Latino descent (more likely than Africans)

**Bone Density study:**

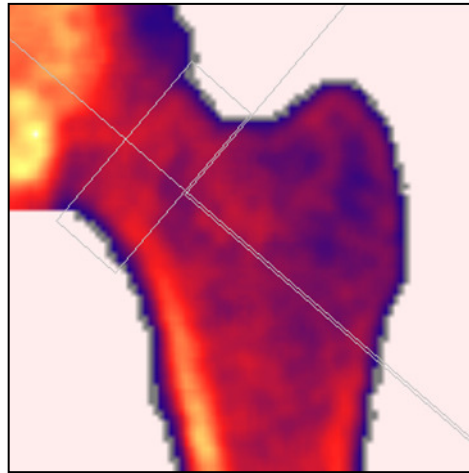
- diagnoses low bone mineral density or assesses your risk of developing fractures
- tracks the effects of any treatment prescribed by your GP or Specialist or of other conditions that cause bone loss
- is quick and easy and takes approximately 20 minutes plus time to fill out an easy questionnaire
- no preparation required
- uses low dose radiation - equivalent to a 4 hour flight in an aeroplane

**ALL CLIENTS ARE BULK BILLED if Medicare eligible**

## Body part sites that are routinely scanned



AP SPINE Regions L1-L4



AP HIP Neck Trochanter Total hip

## Why Scan the Spine and the Hip

The spine and the hip are chosen for a number of reasons:

- Easily accessible sites.

- They are direct load bearing sites that are the first to respond to changes in bone density.

- The lower spine and hip are the most common sites for osteoporotic fractures

Note: Forearm assessments are used only if only one of these regions cannot be assessed - the lumbar spine and neither of the hip regions, or this region was used in a previous bone density study

## What do Gladstone Xray and Ultrasound reports look like?

### REPORT INTERPRETATION

The most significant figure is the T score

T Score: Comparison Of Patient To The Young Reference Value

This is expressed as standard deviations from the mean value;

**> -1 = Normal**      **-1 to -2.5 = Osteopenic**      **< -2.5 = Osteoporotic**

The current and past T scores are used in combination with other factors such as bone history, treatments etc. SEE REPORT EXAMPLES

## What is the Z score?

This figure compares the patient to a normal person their own age and ethnic background. It is not generally used in the assessment of osteoporosis, however it is accepted in some circles for a Z score less than -1.5 to be classed as osteoporotic.

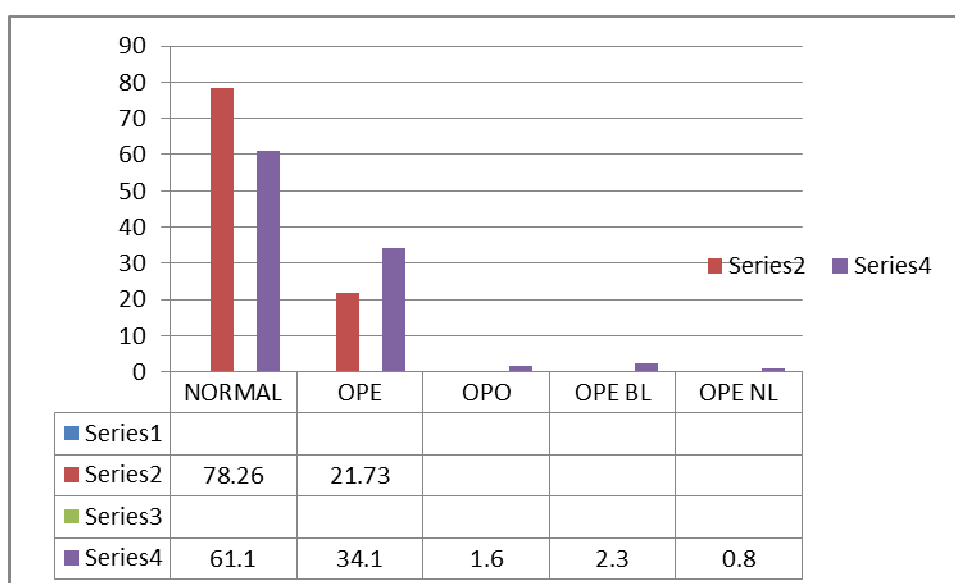
## BONE DENSITY STUDY on a RANDOM GROUP of LOCAL (GLADSTONE REGION) POPULATION

During the month of May 2010, GXU performed 166 bone density studies on a random selection of local people. After advertising the availability of bone density study using DEXA, a random group of people approached Gladstone Xray and Ultrasound, so the age and genders could not be specifically selected or controlled.

The results were as follows: n numbers are as follows:

46 = Series 2 (under 50 years)                      126 = Series 4 (50 years and older)

### RESULTS ARE AS FOLLOWS



#### NOTE:

The T score was used in all of the result  
22 examinations were Males

Series 2 represents age group **under 50 years old**

Series 4 represents age group **50 years and older**

#### Conclusions:

*There is a significant number of T scores in the osteopenic range both in the under and the over 50 years categories.*

*It may be worth suggesting to any of your male or female patients to have their bone densities checked, even if there is no apparent medical reason.*

**A DOCTOR'S REFERRAL IS REQUIRED for ALL BONE DENSITY EXAMINATIONS.**