

## Department of Diagnostic & Interventional Radiology

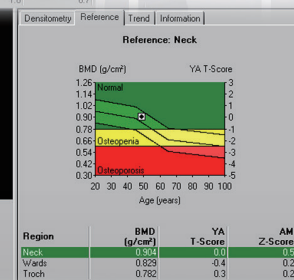
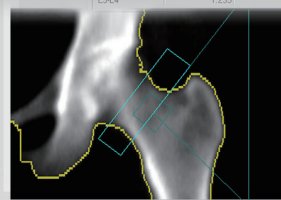
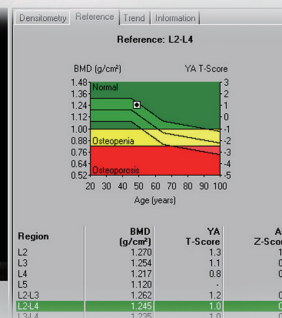
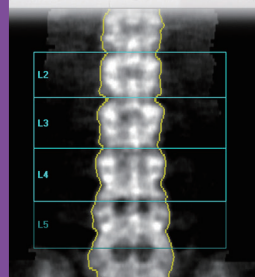
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# Bone Densitometry Test

診斷及介入放射部  
 Department of Diagnostic &  
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## Who Needs a Bone Densitometry Test?

Osteoporosis is often called the “silent disease” since there are rarely signs and symptoms for this disease. People only get to know they have this disease when they have a crippling and painful fracture shown by an abnormal X-ray. At this point over 30% of the bone mass has already gone, and damage becomes difficult to reverse.

The bone mass of a normal adult will start to decrease at the age of 35. Women are born with a smaller bone frame and less bone mass. In addition the amount of estrogen production drops dramatically after menopause. Therefore women have a higher risk for osteoporosis than men. However, osteoporosis affects both men and women. According to a study, 45% of women and 13% of men aged 65 or above in HK suffer from this disease. And each year, over 4000 elderly experience bone fracture as a result of osteoporosis.

The following categories of people are at higher risk of having osteoporosis. If you are one of them, you should start early prevention and have bone densitometry test regularly.

- women after menopause
- advanced age
- having endocrine system disorder
- a family history of osteoporosis
- unbalanced diet, alcohol and tobacco use
- lack of exercise
- having joint disease
- taking medication associated with low bone mass or bone loss

## What is a Bone Densitometry Test?

Our bone densitometer uses small amounts of x-ray to produce images of the spine, hip, or the forearm. The x-ray is composed of 2 energy levels which are differently absorbed by the bones in the body. In this way, the bone density can be determined. The spine and hip are measured because that is where osteoporotic fractures occur most.

Even though x-rays are used, the amount of radiation absorbed by the patient is minimal, and is approximately equal to 1/10th of that received from a chest x-ray. Therefore this is a very safe test. However, you should also inform the operator if you are pregnant or might be pregnant before your test.

The test takes about 5 to 10 minutes during which you will be asked to lie still and breathe normally on a padded examination table. The operator will need to position your arms and legs for the test, which is painless. No special preparation is needed for the exam.

## What Information will the Test Give My Doctor?

A bone densitometry test is an aid to doctors in the diagnosis of osteoporosis. The test compares your bone mineral density (BMD) to that of a “young adult” at the peak bone strength. It also compares your results to people of your same age, called “age-matched”. This information, along with other factors (such as height, weight and ethnicity) will help doctors gauge your risk of osteoporotic fracture. A panel of experts at the World Health Organization (WHO) has developed categories that define the amount of bone loss:

**Normal:** A T-score that is above -1

**Osteopenic (Low bone density):** A T-score between -1 and -2.5

**Osteoporosis:** A T-score below -2.5

Your T-score is one factor that your doctor will consider when making a diagnosis. The bone densitometry test provides information about your own risk of bone fracture in the same way a cholesterol test indicates risk of a heart attack. A diagnosis of osteoporosis cannot predict a bone fracture, it simply means the risk of having a fracture is higher than that for normal bones. With the diagnosis, your doctor may suggest a number of steps including exercise, changes in diet, hormone therapy, or other medicines known to build bone strength such that the risk of fracture would be reduced.

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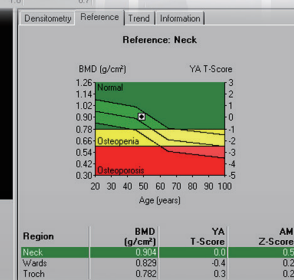
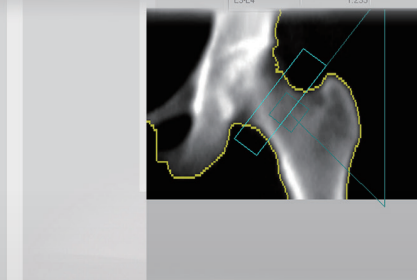
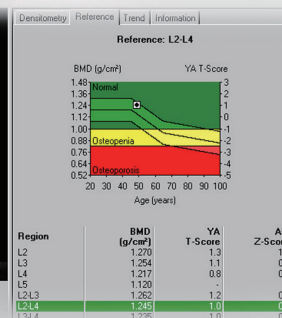
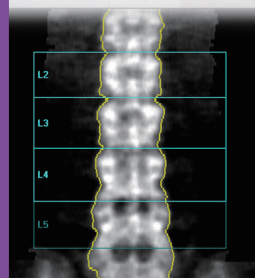
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養和

查詢或預約，歡迎聯絡我們

DR.3051H/C-02-042019



# 骨質密度檢查

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## 甚麼人需要做骨質密度檢查？

寂靜之病，是醫學界對骨質疏鬆症之稱謂，因奇無明顯之症狀，容易讓人輕忽。待骨折發生，照X光片後才發現有異常現象，此時骨質已大量流失，做成醫治困難。

大約35歲後，人的骨質量便開始減少，而女性骨架及骨質比男性少，加上更年期後雌雄激素分泌停止，骨質流失更快，患上骨質疏鬆的機會更大。據統計，本港65歲或以上女性有45%患上此症，而同齡男性的比率為13%，而每年大約有四千名長者因患骨質疏鬆症成骨折。

以下人士罹患骨質疏鬆症的機會較高，應提早預防及定期作骨質密度檢查。

- 停經婦女
- 年紀較大者
- 有內分泌病患者
- 家族成員有骨質疏鬆症者
- 飲食不正常、飲酒及吸煙
- 缺乏運動及久居室內者
- 有關節病變者
- 服用會引致骨質流失之藥物

## 甚麼是骨質密度檢查？

本部使用之骨質密度檢查器利用少量之X光，掃描脊椎，髖骨或前臂。X光包含兩種能量，按骨質密度不同分別吸收，從而推算骨質的密度。由於最容易發生骨質疏鬆問題造成骨折的位置就是脊椎和髖骨，因此骨質密度檢查多在此兩個部位。

雖然骨質密度檢查使用X光，但其輻射劑量極低，相等於十分之一張肺部X光片之劑量，可謂非常安全。不過，婦女作此檢查時如已懷孕或可能懷孕，必須通知本部之技術人員。

此檢查需時約5至10分鐘，事前無須準備，非常方便。

## 骨質密度檢查提供甚麼重要資料？

骨質密度檢查幫助醫生診斷骨質疏鬆症。此檢查將閣下之骨質密度與正常之年輕成年人及同齡人之骨質密度作出比較，幫助醫生估量因骨質疏鬆症引致骨折的危險。世界衛生組織(WHO)對骨質流失作出以下分類：

正常：	T值(T-Score)在-1以上
骨質流失：	T值在-1及-2.5之間
骨質疏鬆：	T值在-2.5以下

醫生會根據骨質密度檢查提供的T值為閣下診斷骨質疏鬆症。患者並非一定會出現骨折，只是骨折的機會比正常高。醫生作出正確診斷後，便可根據情況對症下藥，防治骨質疏鬆，減低骨折危險。