



## 病人教育

造影服務部



# 骨質密度 檢查

怎樣進行準備

骨質密度檢查用於評估你的骨頭健康情況和骨折風險。請閱讀本手冊，以瞭解此項檢查是怎樣工作、怎樣進行、怎樣準備、檢查過程中可能會出現哪些情況，以及怎樣獲取檢查結果。

### 什麼是骨質密度檢查？

醫生採用 X 光來查看並評估骨折和肌骨系統的其他損傷。但是普通的 X 光並非評估骨質密度的最好方法。

為準確地檢驗出骨質疏鬆症，醫生採用一種增強式 X 光，叫做雙能量 X 射線吸收測量法 (DXA 或 DEXA)。DEXA 骨質密度測量法是今天用來測量骨骼礦物密度 (BMD) 的標準方法。DEXA 是一種測量骨質損失的快速無痛檢查法。

最經常接受檢查的部位在腰椎和臀部。有時使用移動式裝置來測量手腕、手指或腳跟部位。

### 此項檢查是怎樣工作的？

DEXA 機透過雙能量流，發出細小不可見的低劑量 X 光束，穿過骨頭來測量骨質密度。

所用的放射量很小 - 不到標準胸部 X 光透視所用劑量的十分之一。

### 我應當怎樣為檢查作準備？

- 正常進食，但是在檢查前至少 24 小時不要服用補鈣劑。
- 穿著沒有金屬拉鏈、皮帶或鈕扣的寬鬆舒適衣服。

- 如果你最近接受過鋇餐檢查，或為接受計算機斷層掃描（CT 掃描）或放射性同位素掃描而服用過造影劑，必須告訴你的醫生。你可能需要等 10~14 天才能接受 DEXA 檢測。
- 如果你可能懷孕了，必須告訴你的醫生或 X 光技師。

### 檢查是怎樣進行的？

DEXA 檢查需要 10~30 分鐘時間，取決於所用設備及接受檢查的身體部位。

1. 可能要求你脫去衣服，穿上隔離衣。
2. 然後，你將躺在有墊的枱上，X 光源來自下方或上方的傳感器。
3. 醫生會重點檢查脊椎和臀部的骨質損失情況，這些部位是最容易發生因骨質疏鬆而導致的骨折。檢查脊椎時，你的雙腿被放在一個有墊的箱子上，以使骨盆和腰椎能夠放平。檢查臀部時，技師將你的腳放入一個支架中，使臀部向內旋轉。在這兩種情況下，傳感器都會緩慢地通過檢查部位，拍攝圖片到電腦螢幕上。
4. 四肢 DEXA (pDEXA) 的檢測則更為簡單。你將手指、手、前臂或腳放入一台小型裝置中，幾分鐘便可獲得骨密度讀數。這些測試的敏感度或許不那麼高，特別是對年輕人來說，因此不能被用來評估對治療的反應情況。

### 檢查中我會有何感覺？

DEXA 骨密度檢查是一種簡單的非介入性檢查。你在枱上躺下之後，可能會要求你擺出一種彎扭的姿勢，並要保持一段短的時間，以便讓檢測裝置的手臂經過你的身體進行測量。在檢查過程中，你必須盡可能保持靜止不動，確保圖像清晰可用。檢查是無痛的，所以無需使用麻醉藥，所受到的輻射也很低。

### 誰負責解釋檢查結果？我怎樣獲取結果？

放射醫師接受過訓練，可執行 DEXA 檢查並向你解釋結果，然後給你的家庭醫生發一份報告，家庭醫生與你一同制定一份醫療計劃。放射醫師不會與你討論檢查結果。

## 有問題嗎？

請致電 206-598-6200

你的問題是很重要的。如果你有任何問題或顧慮，請給你的醫生打電話。UWMC 診所的醫護人員可在任何時間提供幫助。

**造影服務部**  
206-598-6200

---

---

---

---

通常幾天之內便有檢查結果，其形式為 2 組數值：

### **T 數值**

此數值顯示你與同性別年輕成年人峰值骨密度相比的骨密度。數值為 -1 以上為正常。數值介於 -1 ~ -2.5 之間為骨質減少症，即骨質損失的第一階段。數值為 -2.5 以下為骨質疏鬆症。此數值被用於評估你的骨折風險。

### **Z 數值**

此數值反映你與同齡組且身材與性別相同的其他人相比的骨密度。如果數值過高或過低，均說明可能需要接受進一步的醫學測試。

UNIVERSITY OF WASHINGTON  
**MEDICAL CENTER**  
UW Medicine

**Imaging Services**

Box 357115  
1959 N.E. Pacific St. Seattle, WA 98195  
206-598-6200

© University of Washington Medical Center  
Bone Densitometry  
Chinese  
03/2005  
Reprints: Health Online





# Bone Densitometry

*How to prepare for your procedure*

**Bone densitometry is used to assess your bone health and fracture risk. Read this handout to learn about how this exam works, how to prepare for the exam, how the exam is performed, what to expect during the exam, and how to get your results.**

## **What is bone densitometry?**

Doctors use X-rays to view and assess bone fractures and other injuries of the musculoskeletal system. A plain X-ray, however, is not the best way to assess bone density.

To detect osteoporosis accurately, doctors use an enhanced form of X-ray called Dual-Energy X-ray Absorptiometry (DXA or DEXA). DEXA bone densitometry is today's standard for measuring bone mineral density (BMD). DEXA is a quick, painless exam for measuring bone loss.

The lower spine and hips are the most frequently measured sites. Mobile devices that measure the wrist, fingers or heel are sometimes used for screening.

## **How does the exam work?**

The DEXA machine sends a thin, invisible beam of low-dose X-rays through your bones via two energy streams to measure bone density.

The amount of radiation used is small – less than one tenth the dose of a standard chest X-ray.

## **How should I prepare for the exam?**

- Eat normally, but don't take calcium supplements for at least 24 hours before the exam.
- Wear loose, comfortable clothing without metal zippers, belts, or buttons.

- Tell your doctor if you have recently had a barium exam or have received a contrast material for a computed tomography (CT) or radioisotope scan; you may have to wait 10 to 14 days before having a DEXA test.
- Tell your doctor or X-ray technologist if there is any chance you may be pregnant.

### **How is the exam performed?**

The DEXA exam takes between 10 and 30 minutes, depending on the equipment used and the parts of the body being examined.

1. You may be asked to undress and put on a gown.
2. You will then lie on a padded table with an X-ray source below and a sensor above.
3. Doctors tend to focus on bone loss in the spine and hip, where most osteoporosis-related fractures occur. During an exam of the spine, your legs will be supported on a padded box to flatten your pelvis and lower spine. To assess your hip, the technologist will place your foot in a brace that rotates the hip inward. In both cases, the sensor is slowly passed over the area, making pictures on a computer screen.
4. The peripheral DEXA (pDEXA) test is even simpler. You place your finger, hand, forearm or foot in a small device, and a bone density reading is obtained within a few minutes. These tests may not be as sensitive – especially in younger people – and cannot be used to assess response to treatment.

### **What will I feel during the exam?**

DEXA bone densitometry is a simple, non-invasive exam. Once on the table, you may be asked to hold an awkward position for a short period of time, while the arm of the machine passes over your body to take measurements. You must stay as still as you can during the exam to ensure a clear, useful image. No anesthesia is required. The exam is painless, and radiation exposure is very low.

### **Who interprets the results and how do I get them?**

A radiologist, trained to conduct and review DEXA exams, will interpret your results. The radiologist will send a report to your primary care doctor, who will work with you to create a treatment plan. The radiologist will not discuss the results with you.

## Questions?

Call 206-598-6200

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC Clinic staff are also available to help at any time.

**Imaging Services**  
**206-598-6200**

---

---

---

---

Usually ready within a few days, your test results will be in the form of two scores:

### *T Score*

This number shows the amount of bone you have compared to a young adult of the same gender with peak bone mass. A score above -1 is considered normal. A score between -1 and -2.5 is classified as osteopenia, the first stage of bone loss. A score below -2.5 is defined as osteoporosis. It is used to estimate your fracture risk.

### *Z Score*

This number reflects the amount of bone you have compared to other people in your age group and of the same size and gender. If it is unusually high or low, it may show a need for further medical tests.

UNIVERSITY OF WASHINGTON  
**MEDICAL CENTER**  
UW Medicine

**Imaging Services**

Box 357115  
1959 N.E. Pacific St. Seattle, WA 98195  
206-598-6200