

BMD (Bone Mineral Densitometry) with QCT (Quantitative Computed Tomography)

Introduction

A bone density scan, is a special type of X-ray that measures bone mineral density (BMD). It provides information about bone strength or fragility and the risk of fractures or broken bones. The higher the density, generally, the lower the risk of fracture.

The spine and one or both hips are routinely scanned. The forearm might also be scanned if either the hip or spine is unavailable (usually due to surgery). As any condition affecting bone density tends to affect the whole skeleton, a snapshot of a few sites is sufficient to establish the overall bone density. The BMD at the hip and spine has been shown to be the best way of predicting the risk of fracture.

A radiographer will perform the examination.

Preparation

No specific preparation is required for a BMD with QCT.

If you have recently had a Barium study of your stomach or large bowel, you will need to tell staff at the radiology facility.

It is important that you tell your own doctor and staff at the radiology facility if there is any chance you might be pregnant. This is important information, as it will make a difference in the way the BMD is carried out or a different test altogether might be required. Your safety and that of your unborn child is the number one priority.

Bring previous scans (if any) for comparison.

You will be required to change into gown.

You may also be asked to remove your hairclips, earrings, pins, chains or other items of jewellery before the examination, as these can sometimes interfere with examination.

For the scan, you should remain as still as possible. The whole test usually takes 10 to 20 minutes.

Results

A radiologist (a specialist doctor) looks at the images and sends the results to your treating doctor. You need to discuss the results with your treating doctor.

Risks

The dose of radiation used in a QCT scan is generally small and rarely produces harmful effects. The radiation dose will be kept as low as possible.

More Information

InsideRadiology by the Royal Australian and New Zealand College of Radiologists:
www.insideradiology.com.au

RadiologyInfo by the American College of Radiology and Radiological Society of North America: www.radiologyinfo.org

The Australian Radiation Protection and Nuclear Safety Agency: www.arpansa.gov.au

The Alliance for Radiation Safety in Pediatric Imaging: www.imagegently.org

ACI Radiology Network:
www.aci.health.nsw.gov.au