Nuffield Health
FOR THE LOVE OF LIFE®

Undergoing Bone Densitometry

DEXA

Information Sheet

Nuffield Health York Hospital Haxby Road Radiology Department 01904 715100

DEXA scans are often used to diagnose osteoporosis (when the bones become weak and fragile, and are more likely to break).

They can also be used to assess the risk of developing osteoporosis

As well as being quick and painless, a DEXA scan is more effective than normal X-rays in identifying low bone mineral density.

Osteoporosis

If you're over 45 years of age, you may need to have a DEXA scan if you're at risk of developing osteoporosis particularly if there are other associated risk factors, such if you have had a previous fracture.

Such risk factors are used in the World Health Organization (WHO) 10-year Fracture Risk Assessment Tool (FRAX) which applies to both men and women between 50 and 90 years of age.

The tool can be used to assess if a DEXA scan is appropriate, and also uses what is known as the DEXA femoral neck bone mineral density T score to calculate the risk of fracture.

Osteoporosis can affect people of both sexes and all ages, although older, post-menopausal women are particularly at risk. This is because after the menopause the level of oestrogen declines, resulting in a decrease in bone density.

The denser your bones, the stronger and less likely they are to fracture. Osteoporosis doesn't cause any symptoms until a bone is broken. It used to be difficult to measure bone density and identify those at risk of developing osteoporosis until a fracture occurred.

However, by using bone densitometry techniques such as DEXA scans, it's now possible to measure bone density before someone gets a fracture

Measuring bone density

During a DEXA scan, X-rays will be passed through your body. Some radiation will be absorbed by the bone and soft tissue, and some will travel through your body.

Special detectors in the DEXA scanner measure how much radiation passes through your bones, and this information is sent to a computer.

Safety

DEXA scans use a much lower level of radiation than standard X-ray examinations, which means that the radiographer can stay in the scanning room with you during the scan.

The amount of radiation used during a DEXA scan will vary depending on the area of the body being examined, but is very low and less than two days' exposure to natural background radiation

What happens during a DEXA scan?

The scan will usually take between 10 and 20 minutes

The radiographer may ask you to remove certain items of clothing or to wear a gown. You will lie on a padded table during the scan. The radiographer may position different parts of your body to obtain the images. For example, to assess your hip, he or she may secure your foot to rotate your hip inwards. It’s important to lie very still as each area is scanned. This will help to prevent a blurred image

Your results

A DEXA scan compares your bone density with the bone density expected for a young healthy adult or a healthy adult of your own age, gender and ethnicity. Although BMD results provide a good indication of bone strength, the results of a DEXA scan won't necessarily predict whether you will get a fracture, many other things need to be taken into consideration.

Results will be sent to your doctor and will be available within 2 weeks, follow up consultation is recommended so results and treatment can be discussed.

Intervertebral Analysis (IVA)

If your doctor thinks you may be at risk of or suffering from an osteoporotic spinal fracture you made be sent for an additional IVA scan. This is a very low dose scan of your whole spine.