Bone Health and Dexa Scanning

Written by Dr Louise Newson

balance

the menopause support app

This booklet has been written by Dr Louise Newson, GP, menopause specialist and director of the balance app. She is also director of the not-for-profit company, Newson Health Research and Education, and is the founder of The Menopause Charity.

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The health of your bones

Bones in our body are living tissue, made up of cells and blood vessels that help the bone grow and repair itself. The amount of bone tissue you have is known as bone density. By your late thirties, your bone density starts to naturally decrease. This loss of bone density makes your bone weaker, less pliable and therefore more susceptible to breaking. The loss happens at different rates in different people.

Bone health in women

Women are more affected by a loss of bone strength for a number of reasons.

Hormonal changes during the menopause: because of less estrogen in your body (the hormone that helps protect bone cells) bone breakdown occurs at a faster rate than bone can repair itself - leading to a steady deterioration in bone density.

On average, women in their 40's have lower bone density than men and continue lose it at a faster rate. Coupled with the fact that women tend to live longer than men, osteoporosis is a disease that affects women more often.

Assessing bone health

The lower your bone density the higher the risk of breaking your bones. Because of this, it is useful to measure your bone density and the most common way to do this is by scanning your bones to measure the amount of calcium and bone minerals in each area. With the information from the scan and knowledge about other health and lifestyle factors, an overall judgment can be made on how strong your bones are and how likely they are to break. The most common type of scan to measure bone density is a DEXA scan.

DEXA Scanning

Also referred to as a DXA scan, DEXA is short for Dual Energy X-ray Absorptiometry; it is a safe, accurate, painless and non-invasive way of measuring your bone density. It uses a very low dose of radiation, that is less than one tenth of the radiation from a chest X-ray, for example, and not more than every day, background radiation in the street.

The scanner calculates the difference between how much radiation enters and exits the bones; the difference represents

how much radiation has been absorbed by the bone and other tissues - this measurement is known as bone density. It is, therefore, a measure of quantity rather than quality.

The scanner also uses the bone density measurement to compare against people of the same age and sex, giving a good indication as to whether you are at risk of, or have already developed, osteoporosis.

Body composition

The DEXA scan at Newson Health can also be used to determine whether your level of visceral (internal) fat is at a healthy level. It also measures your lean (muscle) mass and bone mass. Body composition (your percentage of fat, muscle and bone) is important because it can give you an indication of your own individual health and potential risks.

A body composition scan is a separate scan to a bone strength scan that measures bone density, and it needs to be booked separately.

Having a DEXA scan at Newson Health clinic

Environment: At Winton House, there is a designated room for carrying out DEXA scans in a safe, private and comfortable atmosphere. There is a private area to leave your belongings and get changed, should you wish.

Clothing and jewellery: Soft or loose-fitting clothing without zips or metal fasteners, such as sportswear, is ideal to wear. Comfortable gowns are available as an alternative. You will be asked to remove any metal piercings (if they are in the area to be measured), jewellery or underwired bras, and to remove your footwear.

Reassurance and comfort: You will be welcomed by the nurse who will fully explain the procedure and answer any questions you may have. She will go through the answers you provided in the questionnaire and ensure your consent is documented.

Reassurance and instruction will be given throughout and at no time will you be left alone during the procedure.

The scan does not involve going into a 'tunnel' like an MRI scan, and no injections are necessary. You will simply be asked to lie down and a scanning arm will slowly be passed over your spine and legs.

The scan itself does not cause any pain. You will be asked to move your legs and spine into various positions and rest them on a cushion. Depending on your mobility, some positions might cause some mild discomfort for a few moments.

Duration: The length of time the scan takes will depend on what type of information has been requested, and how many different positions are necessary. The scan itself may only take 15-20 minutes maximum.

It is recommended that you allow a minimum of an hour, for the whole procedure - then you will not be worried about other time pressures, such as car parking.

Results: Results, or any diagnostic information, will not be available at the time of the scan, as the images will be sent to Professor David Reid, a Consultant Rheumatologist, who specialises in osteoporosis. He will interpret the images and report back to your doctor at Newson Health clinic. You will then receive a full written report, with the findings of the DEXA scan.

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Dr Louise Newson is a GP and menopause specialist in Stratford-upon-Avon, UK and the founder and writer of the balance app and website.

The website and app contain evidence-based, non-biased information about the perimenopause and the menopause. She created both platforms to empower women with information about their perimenopause and menopause and to inform them about the treatments available.

Her aim is for people to acquire more knowledge and confidence to approach their own GP to ask for help and advice about their hormones. She is passionate about improving awareness of safe prescribing of HRT in all stages of the perimenopause and menopause.

Louise is also the director of the not-for-profit company Newson Health Research and Education.