

Bone Density Scan (DEXA)

Your doctor has recommended that you have a bone density scan. The reason for this will depend on your condition; your doctor will talk to you about your options. This leaflet explains the procedure and aims to answer the main questions you're likely to have. If you have any additional questions then please feel free to talk about them with your doctor, nurse or radiographer before the procedure.

What is a bone density scan?

A bone density scan, also known as a DEXA (dual energy X-ray absorptiometry) scan, uses X-ray equipment and a computer to measure bone density. A DEXA scan looks for signs of fragile bones (osteoporosis), which have a low density. The results of the scan help to:

- estimate your risk of fractures in different bones, for example hip, wrist or bones of the spine
- monitor how well treatment for osteoporosis is working

The procedure is quick and painless. It involves exposing your body to a small dose of X-ray radiation. A scanning machine projects X-rays onto your bones (usually hip and lower spine). Some of this radiation travels straight through the bones and a certain amount is absorbed by them - how much depends on how dense the bones are.

A detector measures how much radiation passes through your bones and sends the information to a computer. This works out a score of the average density for the bone and can compare it to expected measurements for someone of your age and sex. A low score indicates the bone is fragile and therefore more likely to fracture. You're likely to benefit from having a DEXA scan if:

- you have fractured a bone after only a minor fall or bump
- you're in a high-risk group for osteoporosis

What are the alternatives?

Alternative imaging tests such as ultrasound and computed tomography (CT) scans can be used to assess your fracture risk. However, these aren't usually done because they aren't as reliable as DEXA scans. CT scans also use larger doses of radiation than DEXA scans. Blood tests that claim to predict your risk of osteoporosis are available but experts advise that these aren't reliable. Normal X-rays, also called plain X-rays, are not helpful for diagnosing osteoporosis.

Preparing for your bone density scan

You should tell the doctor or radiographer if:

- you are, or think you could be, pregnant - a DEXA scan isn't recommended for pregnant women, unless there is an urgent medical reason
- you have had a nuclear medicine scan in the past few days
- you have had a barium or Gastrografin swallow, meal or enema in the past few days
- you have had surgery on your hips or spine

If possible you should wear light clothing that doesn't have metal fasteners over your spine and abdominal (tummy) areas. Before the scan you will be asked to put on a gown and remove any items of clothing and jewellery that contain metal.

About the procedure

The scan will be carried out by a radiographer (a health professional trained to perform imaging procedures). He or she will explain the procedure and make sure that you're happy to go ahead with the test. You will be taken to the X-ray room and asked to lie down on the X-ray table. The radiographer will move you into position. If you are having your hip scanned, he or she will rotate your leg inwards and strap it to a support. For a scan of the lower spine, your legs will be supported with a pad.

The X-ray machine will slowly pass over your body and send X-rays through the bones being tested. Two scans will be taken and you will need to remain very still for these. It is usual to scan your left hip and lower spine. However, if you have had surgery in this area, other parts of the body may be used instead, such as your forearm. The test usually takes about 20 minutes but altogether you will be in the radiology department for approximately 30 minutes.

What to expect afterwards?

When you feel ready, you will be able to go home. You can drive if you wish.

Getting your results

A report will be sent to the doctor who requested your test. This can take several days. He or she will discuss the results with you at your next appointment.

What are the risks?

DEXA scans are commonly performed and safe. However, in order to make an informed decision and give your consent, you need to be aware of the possible risks. You will be exposed to some X-ray radiation but the amount you receive isn't considered to be harmful. The level of exposure will depend on the procedure. Talk to your doctor or radiologist for more information. Pregnant women are advised not to have a DEXA scan as there is a risk that the radiation may harm the unborn baby. If you are, or could be, pregnant then please tell your doctor or radiographer. Ask your doctor to explain how these risks apply to you. The exact risks will differ for each person.

There are limitations to the information that can be obtained from DEXA scans. Many people do have fragile bones and have fractures, even though their results don't indicate that they are at risk. This is why it's important that you and your doctor consider other risk factors when deciding whether to have treatment to help prevent fractures.

Contact

If you have any questions or need further information, please contact the Diagnostic Imaging department on +44 (0)20 7460 5746/7 or fax +44 (0)20 7835 2496. The department is open from 8.00am to 8.00pm, Monday to Friday and 9.00am to 2.00pm on Saturday.

Please be punctual for your appointment. If you cannot keep your appointment then contact us immediately.

Bupa Cromwell Hospital
162 – 174 Cromwell Road
London SW5 0TU
+44 (0)20 7460 2000 (hospital switchboard)
info@cromwellhospital.com
bupacromwellhospital.com

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