

What is a DEXA scan?

Essential information
on the diagnosis
tool for osteoporosis



sponsored by an educational grant from



MERCK SHARP & DOHME

Ireland (Human Health) Limited

Your doctor has referred you for a DEXA scan (Dual Energy X-ray Absorptiometry) because he/she considers that you may be at risk of osteoporosis. The DEXA scan will allow him/her to measure your current bone density (bone strength) and recommend treatment to prevent bone fractures in the future.

What is osteoporosis?

Osteoporosis is a thinning and weakening of the bones which increases the risk of fractures (usually the hip, wrist and spine) causing pain, disability, curvature of the spine and loss of height. Osteoporosis affects 1 in 3 women over 50 and between 1 in 5 and 1 in 8 men over 50. Often the first sign of osteoporosis is a bone fracture as a result of a small bump or fall.

A DEXA scan will help your doctor detect osteoporosis at a much earlier stage in the development of osteoporosis (osteopenia) so that action can be taken to prevent further fractures.

A number of risk factors are associated with osteoporosis such as:

- **In women, if you were over 16 years before your first period, missed menstrual periods for more than 6 months and were not pregnant, had an early menopause or had a hysterectomy**
- **In men, low levels of the male hormone testosterone (hypogonadism) which can cause loss of sex drive, loss of erections, depression and fatigue**
- **Low body weight, history of an eating disorder such as anorexia**
- **Psychological stress**
- **Long term use of corticosteroid tablets (such as asthma medication)**
- **Maternal history of a hip fracture**
- **Malabsorption, inflammatory bowel disease (Coeliac disease, Crohn's disease, ulcerative colitis) and gastric surgery**
- **Lack of exercise, long-term immobility or excessive exercise**
- **Heavy drinking**
- **Smoking**

Your doctor has assessed your history against these risk factors and recommended you have a DEXA scan to measure your bone density.

What is a DEXA scan?

A DEXA scan is a special X-ray which determines bone density. It is fast and accurate and is carried out with the patient lying, fully clothed (apart from your shoes) on a padded examination table. A DEXA scan takes approximately 15 minutes to scan the lumbar (lower) spine and the hip. It is simple, painless and uses an extremely low dose of radiation.

Going for your DEXA scan

DEXA scans are usually performed in a hospital setting, private clinics and some GP surgeries also have DEXA scanners. The Irish Osteoporosis Society has a list of centres where DEXA scans are available. The list is available on their website at www.irishosteoporosis.ie or by telephoning the Society on **01 677 4267**.

When you are brought in to the room for scanning it is important to advise the technician if any of the following information is relevant to you:

- **If you are pregnant or think you may be pregnant**
- **If you have a metal implant in an area that may be scanned (hip implant)**
- **If you have had any fracture in the past**
- **If you have had a previous DEXA scan (so the results can be compared)**

The technician will measure your height and weight and you will then be asked to lie fully clothed on the padded examination table. The most common areas to be scanned are the lumbar spine and hips. An electronic arm will slowly travel over the area of your body being scanned. It is important that you lie completely still so that the images are clear and accurate.



What about the results?

The DEXA scan will generate a computerised printout with pictures and results for you and your doctor to discuss. The results will be available to you immediately or within a short period of time, depending on the centre.

Different models of DEXA scanners will interpret data differently but a broad guideline is that your scan results will be compared to peak bone mass (normal bone density in healthy men and women aged between 23 to 35). This is called a T-score. Your scan results will also be compared to the bone density of people in your own age group. This is called a Z-score. Osteoporosis is clinically diagnosed from the comparison to peak bone mass using the T-score.

Normal	a T-score value greater than -1 means your bone density level is normal and you do not have osteoporosis
Osteopenia	a T-score value of between -1 and -2.5 indicates osteopenia which is the state of bone health prior to osteoporosis
Osteoporosis	a low trauma fracture or a T-score value less than -2.5 indicates osteoporosis

If you are found to have osteoporosis or osteopenia your doctor will recommend a plan of action, which may include medication and the following lifestyle changes;

- **Stop smoking**
- **Weight bearing exercise for 30 minutes per day such as walking, stair climbing and jogging**
- **A well balanced diet**
- **Calcium and vitamin D supplements if you have inadequate levels in your diet**
- **Reduced amount of cola drinks and caffeinated drinks (coffee, tea)**
- **Reduce alcohol intake if excessive**
- **Follow-up DEXA scans to assess any changes in bone health (18 months to two years)**

Depending on the findings of your DEXA scan your doctor may decide to put you on a treatment that will help to increase bone density or slow down or stop bone loss. Today there are a range of medications available from your doctor.

Who needs a DEXA scan?

Anyone, at any age, male or female with one or more of the risk factors for osteoporosis should have a DEXA scan.

The earlier osteoporosis is identified the more that can be done to prevent it progressing, therefore it is useful for women in their early to late 30s to have a baseline scan for comparison in the years to come.

Avoiding osteoporosis

Younger men, women and even children can get osteoporosis and action should be taken to avoid the development of the disease as early as possible.

Here are five things you can do at any age to help prevent osteoporosis:

1. Eat a balanced diet.
2. Take regular weight bearing exercise (30 minutes per day).
3. Ensure you have an adequate intake of calcium and vitamin D.
4. Assess your risk of osteoporosis against the risk factors included in this leaflet and if you are concerned speak to your doctor.
5. If your doctor prescribes a medication for osteoporosis make sure to take it as directed.



For further information on any of the issues discussed in this leaflet please talk to your doctor or contact the following:



Irish Osteoporosis Society

33 Pearse Street, Dublin 2

Tel: 01 677 4267

e-mail: info@irishosteoporosis.ie

www.irishosteoporosis.ie



European Institute of Women's Health

33 Pearse Street, Dublin 2

Tel: 01 671 5691

e-mail: info@eurohealth.ie

www.eurohealth.ie

sponsored by an educational grant from



MERCK SHARP & DOHME

Ireland (Human Health) Limited