

OSTEOPOROSIS

WHAT IS OSTEOPOROSIS?

Bone is constantly being broken down and built up as part of a natural turnover process but after middle age (35-55) bone loss increases as a natural part of the ageing process. Bones become more fragile and vulnerable to fracture.

The risk of osteoporosis is greater if you have:

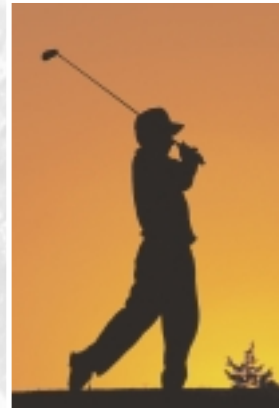
- Had a previous low-trauma fracture
- A family history of osteoporosis (eg. parents with fractures, severe height loss or spinal curvature)
- Had an early menopause (or ovaries and/or womb removed before age 45)
- Are of a slight stature/bodyweight
- Have taken steroids for a long time.

GENERAL ADVICE

- While walking does offer many health benefits it only helps to maintain bone strength and not to increase it, so it is important to make sure do some activity which involves weight resistance. A postural stability instructor will be able to give you more advice (see back page)
- Avoid losing weight if you are of normal or less than normal weight. Body weight loads bone and therefore stimulates it to improve in strength.
- Avoid smoking because it inhibits oestrogen and so increases the risk of osteoporosis. High intakes of antioxidants such as vitamins E and C may help to offset this to some extent.
- Make sure you have a good dietary intake of calcium (about 1 gram per day) and vitamin D which are both required for optimal bone health.

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Further information

- Activities in which you bear weight are the most useful as they increase bone strength but the types of exercise differ according to the individual (see the 'What type of activity is best?' table inside). Activities suitable for reducing future risk of osteoporotic fracture in the young and robust will be totally unsuitable for older individuals who already have low bone mineral density.
- Find activities that you enjoy because these need to be practised regularly and incorporated permanently into the lifestyle. Improvements take months and years to become established and need to be maintained.
- If stress incontinence inhibits you from taking exercise speak to your GP/practice nurse or contact the National Osteoporosis Society who will give you advice about managing or curing this problem.

Qualified instructors

Teaching older patients or those with osteoporosis requires special training. It is highly recommended that you should seek the advice of a trained Postural Stability Instructor who will help give you individual advice on the most effective forms of activity. They will also be able to guide you towards local programmes and classes. You can find a qualified Instructor who will be local to you by telephoning the Later Life Training number below.

Remember: The more active you are, the more benefits you will get.

Be active - be safe - have fun!

For more information

- Later Life Training 020 8998 7672 or e-mail info@laterlifetraining.co.uk
- BBC Online Health www.bbc.co.uk/health/50plus/health_osteo.shtml
- National Osteoporosis Society 0845 4500230 or www.nos.org.uk
- NHS Direct 0845 4647 or www.nhsdirect.co.uk
- SportEX Health - information on physical activity www.sportex.net

Local information

PHYSICAL ACTIVITY AND OSTEOPOROSIS

How does physical activity help prevent osteoporosis?

- Weight resisted exercise helps to stimulate bone to improve in strength which therefore reduces the long-term risk of osteoporotic fracture.
- Physical activity also helps improve balance and muscle function which reduces your risk of falling and suffering a fracture.
- An additional benefit of physical activity is that it helps reduce a number of risk factors in heart disease including high blood pressure, high blood cholesterol, being overweight and the risk of developing diabetes.
- It also helps reduce anxiety, depression and stress, and improve your overall feeling of well-being as well as helping you sleep better.

What type of activity is best?

For young individuals including pre-menopausal women

Jumping or skipping (50 x daily)

Field or racquet sports (3 x a week)

High impact dancing (Irish, Scottish or tap, 3 x a week)

Jogging (for 10-20 minutes 3 x a week)

For post-menopausal women and older men

Weight-training (using high resistance and few repetitions)

Intermittent jogging (for 10-20 minutes 3 x a week)

Stair-climbing (10 flights a day)

Exercise classes (with a variety of weight-bearing activities including some with brief high impact)

Activities to avoid

Spinal flexion should be avoided. This includes toe-touching with straight knees, some yoga exercises and sit-ups. There are ways of improving abdominal strength without doing sit-ups.

Non-effective activities

Non-weight-bearing forms of exercise such as swimming and cycling, which are excellent for reducing the risk of heart disease or diabetes, are not effective for reducing the risk of osteoporosis. Nor does walking more than 10 minutes a day provide any extra benefit.

How much and how often?

Frequency Your main aim is to build up to 30 minutes of moderate intensity activity on 5 or more days of the week. If this seems too much to start with, try starting with 3 x 10 minute sessions of activity spread throughout the day and work towards 2 x 15 minute sessions and then 30 continuous minutes. One goal is to try and increase your activity by 2 minutes each day.

Intensity Moderate intensity means breathing harder and getting warmer than normal. It does not need to be hard. You should be able to talk and be active at the same time.

Advice Whatever your chosen activity, it should be performed at a gentle intensity which gradually increases until after about 10 minutes you have reached the level you can maintain for your chosen period of activity. This gets the blood flowing to your muscles and allows your heart rate to increase gradually. When you are nearing the end of your activity you should also slowly decrease the level of activity over 5-10 minutes to allow your heart rate to slow down gradually.

Remember Set yourself realistic goals and don't worry if you miss one day. Just make sure that the next day you pick up where you left off.

Staying safe

- Physical activity is safe if you start slowly and build up gradually to the recommended levels.
 - If you do not know how much physical activity you can do safely or you have other medical concerns such as arthritis, ask a medical professional for advice.
 - Weight bearing activity is most important for your bone to benefit, raised heart rates are important for gaining some of the other health benefits mentioned.
 - Do not exercise if you are unwell, have a temperature, chest infection, or an inflamed or swollen joint.
 - Wear sensible, flat laced-up shoes and loose cotton clothes.
 - Always start with a warm up using gentle exercise to mobilise the joints.
 - Take plenty of rest periods.
- If you get any of the following problems stop and ask for medical advice from your GP or by contacting NHS Direct (see next page)
- Discomfort in your chest or upper body brought on by physical activity.
 - Uncomfortable or severe breathlessness, dizziness or nausea.
 - Fainting or palpitations (a very fast or irregular heart beat) during activity.