

## Welcome to the: Orthopaedic Opinion Online Website

The website for the answer to all your Orthopaedic Questions

- **Orthopaedic Opinion Online** is a website designed to provide information to patients who have orthopaedic and musculoskeletal problems and are undergoing treatment.
- **Patient information** is provided in the form of downloadable information sheets.
- **Orthopaedic advice** and second opinions can be provided by our expert internationally renowned Consultant Orthopaedic Surgeons.
- **Online review** of patients' X rays or MRI scans can also be provided and any proposed treatment plans reviewed.
- **Book a clinical consultation** with one of our internationally renowned consultant orthopaedic surgeons in Bristol or London.
- **Orthopaedic reports** can be provided for Injury or Accident Claims and Medical Negligence claims.

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## Osteoporosis and Exercise for Bone Health

### OSTEOPOROSIS

Osteoporosis is the weakness of bones due to a loss in bone density. It is often age related and the risk of osteoporosis can be reduced by eating plenty of calcium and Vitamin D. Osteoporotic bones are more susceptible to fracture and can be strengthened with regular exercise.

### EXERCISE

Exercise stimulates bone to increase its calcium content and in turn become more dense. The stress on bone through exercise encourages it to produce more calcium, and thereby reducing the risk or scale of osteoporosis later in life.

Exercise throughout adulthood will increase bone density and people of all ages should exercise to keep their bones in good health.

Any form of exercise will encourage an increase in calcium in the bones, the ideal regimen being weight-bearing and resistance exercises. Weight-bearing exercises, such as walking and jogging, are the best way to increase bone density. Even household work and gardening will help. Resistance exercises, e.g. with weight machines, will also strengthen bones and exercises should be focused on the major muscle groups of the trunk and limbs.

Weight bearing exercises for 30 minutes a day, 3-4 days a week, is the recommended amount, and 2-3 times a week for resistance exercises. Allow at least one day between exercises to allow your muscle and bones to rebuild themselves.

Too much exercise can wear bone down so if in doubt contact your doctor for advice.

### WHAT ELSE CAN I DO TO KEEP MY BONES HEALTHY?

A well balanced diet is important to good bone health. Children through to young adults require more calcium than older people. Foods such as green, leafy vegetables, tofu, dairy

products, almonds and shellfish are ideal and some foods are fortified with calcium, ie some bread, cereal and orange juice. Some people do not meet the recommended intake of calcium and in this case calcium supplements may help.

### **TIPS FOR BEGINNING AN EXERCISE PROGRAM**

Before you start - Consult your doctor and orthopaedist to ensure that there are no medical or musculoskeletal problems that may place restrictions on your exercise program. Select an activity that you like and that works with your lifestyle. Try to vary your exercise routine in order to keep it interesting.

For cardiovascular or aerobic activities (such as walking, jogging, or swimming). Begin at a low level and gradually build your intensity and duration. Warm up for 5 minutes before any activity, start slowly for the first 5 minutes of the activity, and finish with a 5 minute cool-down (walking and stretching). Gradually increase your workout duration from 5 minutes to 30 minutes. Slowly increase your intensity so that your heart rate increases to 60% to 80% of your maximum heart rate (maximum heart rate equals 220 minus your age).

For resistance exercises (free weights, weight machines). Begin each exercise with very low weights and minimal repetitions. Slowly increase weight, no more than 10% per week. Gradually increase the number of repetitions to several sets of 10 to 12 repetitions, with a rest period of 30 to 60 seconds between sets. Warning signs - It is normal to feel mild soreness or stiffness after exercising. If you have pain or feel tired throughout the day after exercising, you did too much. You should decrease the intensity and/or the duration of your exercise. If you experience severe pain, swollen joints or limping, contact your doctor.

### **REFERENCES**

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