



Exercise for bone health

- Exercise helps keep bones strong, prevent falls and fractures and can help you recover faster after a fracture
- Doing a variety of different exercises is best as it exercises the bone in different ways

We all know exercise is important and has many health benefits. It can improve the fitness of our heart and lungs, reduce body weight and reduce the risk of developing conditions such as diabetes. It also improves sleep, energy levels and mental wellbeing.

Exercise is also vital for the health of our bones. Like muscle, bone is living tissue that responds to exercise by becoming stronger. People who exercise regularly have higher bone density than those who don't.

Our bones

Our bones are constantly growing, rebuilding, replacing and repairing.

From birth to about 25 years of age, we build more bone than we lose. Our bones are not only getting bigger as we grow during this time, but they're developing their density. This determines how strong they are.

From about 25 to 50 years of age our bones break down and rebuild at about the same rate. They're in a state of balance. This is when we've achieved our 'peak bone mass'. Our bones are at their strongest.

After about 50 years of age, we start to break down more bone than we rebuild. While this means that we'll all experience some bone loss – it doesn't mean that everyone will develop osteoporosis.

Women commonly experience a period of rapid bone loss after the onset of menopause. After this time there's a steady but less rapid loss of bone.

It's important during all of these stages that we do everything we can to improve our bone health - including exercise.

Types of exercise for bone health

Exercise must be regular and ongoing to have a significant benefit. Doing a variety of different exercises is best as it exercises the bone in different ways.

The types of exercise that benefit bone health include:

- weight bearing: such as brisk walking, climbing stairs, tennis, netball. Your body is carrying its own weight and gravity is exerting a force. Our bones become stronger because they're coping with the force placed on them.
- high impact: such as running, jumping or skipping. These exercises place high stresses on the bones of the spine and legs as your feet hit the ground.
- resistance training: also known as strength training. It involves the use of machines (e.g. leg press) or free weights (e.g. dumb bells). The strong muscle contractions required to move a heavy weight place stress on the bone where the muscle attaches. When bone feels this strain repeatedly, it responds by becoming stronger.
- balance training: exercise such as tai chi and yoga improve balance and mobility, and can reduce a fear of falling. This is important for reducing fractures.



Before beginning an exercise program speak with your health professional. Not every type of exercise will be suitable for all people. This is especially important if you have other health conditions including osteoporosis. A physiotherapist or exercise physiologist can assist you with an exercise program that targets your specific needs and reduces your risk of injury.

Regular and ongoing exercise

It's important that your exercise program - whether you have osteoporosis or not - is regular and ongoing. Some strategies to help you maintain your exercise program include:

Exercise with a group or a partner - this can improve your motivation to exercise. It also provides an opportunity for socialising with others.

Variety - vary where you exercise and the type of exercise. Include recreational activities such as bush walking or dancing. This will help keep your mind fresh and your motivation high. Find activities that are enjoyable to you so that you'll be motivated to continue doing them.

Exercise within your capabilities - often people drop out of exercise programs because they exercise at a level beyond their current capabilities. By ensuring your exercise program suits your current abilities, you'll decrease your risk of injury and enhance your enjoyment and motivation to continue your exercise program.

Set goals - set long-term, short-term and daily goals.

Long-term goals are an end-point that you'd like to achieve, for example walking 60 minutes without stopping by the end of 6 months.

Short-term goals break down the long-term goal into smaller, more achievable pieces, for example walk 30 minutes without stopping by 3 months. These smaller goals help you build up until you reach your long-term goal.

Daily goals break down the goals even further and are the everyday things you need to do to achieve your short-term goal. For example walk for 10 minutes on three days during weeks 1 and 2, 20 minutes on four days during week 4 and so on.

Goals need to be realistic, measurable and have a timeframe. Constantly evaluate your goals, adjust them as needed and reward yourself for your successes.

Stop if you have pain - don't continue exercising if you experience pain or severe discomfort.

Where to get help

- Your doctor
- Physiotherapist
- Exercise physiologist
- Musculoskeletal Australia
MSK Help Line: 1800 263 265

How we can help

Call our MSK Help Line and speak to our nurses. Phone 1800 263 265 or email helpline@msk.org.au.

We can help you find out more about:

- osteoporosis and musculoskeletal conditions
- ways to live well with these conditions
- managing your pain
- upcoming webinars, seminars and other events.

More to explore

- Australian Physiotherapy Association
www.physiotherapy.asn.au
- Exercise and Sports Science Australia
www.essa.org.au
- Osteoporosis Australia
www.osteoporosis.org.au

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