

Healthy bones

You can do many simple things to keep your bones strong and healthy throughout your life.

Around 1.2 million Australians – mostly women – live with osteoporosis, which means they have fragile, brittle bones that can fracture easily. This is expected to increase to over 3 million by 2021, according to Osteoporosis Australia.

A further 6.3 million men and women have osteopenia, meaning they've lost some bone density or strength, and may be at increased risk of a fracture in the future.

The good news is that bone loss can be prevented or slowed, says Jean Hailes endocrinologist Dr Sonia Davison.

“Taking care of your bones doesn't require a lot of effort; it's never too late to do something to help maintain bone strength. You just need to think about your bone health and make it a priority,” advises Sonia. “By keeping them dense, you ensure your bones are in optimum condition to support you every day.”

“Many things that are important for strong bones, such as exercise, adequate calcium in your diet, and getting enough vitamin D through sun exposure, are important for our general health, too.”

What can you do to maintain strong bones and reduce your risk of osteoporosis or osteopenia at different life stages?

Younger Women

Bones are at their thickest and strongest when we are young, and reach their peak density during our mid-20s until around the age of 30.

“Whatever we can do until that point is critical for bone mass,” says Sonia.

“A key message at this age is to do plenty of weight-bearing exercise, so run, dance, walk and keep moving. Use your skeleton as it was designed to be used.”

As load or weight is placed on our skeleton it increases bone formation where the load is greatest. However, too much exercise can be detrimental, so maintain a balance.

“Excessive running and high-intensity exercise for long durations can cause stress fractures and thin the bones,” says Sonia.

Younger women who develop eating disorders also reduce bone mass, putting themselves at greater risk of osteoporosis. A healthy balanced diet with plenty of fresh fruit and vegetables, lean meat and fish and whole grains, is important.

Smoking is a risk factor for osteoporosis and smokers lose bone strength more quickly than non-smokers. If you're a smoker, the best thing you can do for your bone health and your general health is – quit!

Tips for better bone health

- Maintain bone density with at least 15 minutes of weight-bearing exercise four times a week.
- Have 1,000mg/day of calcium: around three serves of dairy; smaller amounts of calcium are also found in kidney beans, canned sardines, tofu, almonds, brazil nuts and tahini.
- Get enough vitamin D – sunlight is the simplest source of vitamin D, but avoid peak UV times. Your doctor can check vitamin D levels with a blood test.
- Follow safe alcohol drinking levels and avoid excess caffeine.

Midlife

As women go through menopause, bone loss accelerates quickly due to a fall in the hormone, oestrogen. Bones lose calcium and minerals and 1% – 5% bone loss occurs each year after menopause.

“Oestrogen has a major role in maintaining bone mineral density but density declines sharply around menopause,” says Sonia.

At midlife our body also becomes less efficient at absorbing and preserving calcium. This speeds up bone loss.

“At menopause, it’s important to present to a doctor for normal screening – cholesterol, blood pressure, fasting blood glucose, mammogram and Pap smear,” she adds.

“Also discuss any family history of fracture and other risk factors for loss of bone density, such as excess alcohol or coffee consumption, smoking, low calcium or dairy intake, low vitamin D level and limited weight-bearing exercise.”

Tips for better bone health

- Discuss a DXA scan with your GP: this non-invasive scan measures bone density and identifies if you have osteoporosis or osteopenia.
- Continue weight bearing exercise at least four times a week.
- If under 50, have 1,000mg of calcium daily. After 50, increase calcium to 1,300mg daily.
- HRT is an option for women under 60 as it will help to maintain bone mineral density.
- Expose face, arms, hands or legs to the sun for 10 minutes a day in summer; 15–20 minutes in spring and autumn; and half an hour during winter. Vitamin D helps increase the absorption of calcium.



Senior years

After the age of 60, 1 in 2 Australian women and 1 in 3 Australian men will sustain a fracture due to osteoporosis. But there is still much that can be done to reduce the risk of fracture in later years.

Essentially, we need more of the same – more exercise, calcium, vitamin D.

“Continue to use the skeleton and maximise your peak bone mass. It will slow the decline in bone density,” advises Sonia.

“We tend to be bigger as we age and vitamin D absorption and production is less in bigger individuals. Vitamin D production goes down with age too, so adequate sun exposure is important. If you can’t get enough sun, your GP may recommend a vitamin D supplement.”

At this stage women need 1,300mg of calcium each day. Sonia cautions that if you are advised to take a calcium supplement, take the minimum because there can be a cardiovascular risk associated with too high doses as it may increase calcification of the arteries. “Increase calcium through food as much as possible,” she says.

Physical activity is still important for bones, balance and posture but you may need to discuss safe and suitable types of exercise with your GP to minimise the risk of any falls and injuries.

“Aim to do some exercise every day. Weight-bearing exercise will help slow bone loss and it’s also good for balance and general fitness,” says Sonia.

“It’s never too late to do something to help maintain strong bones.”

Tips for better bone health

- Discuss how often you should have a further DXA scan to monitor bone density and bone loss.
- Continue with weight bearing exercise at least four times a week.
- Have 1,300mg of calcium daily and a supplement if required (keeping supplements to a minimum).
- Maintain daily sun exposure. Older people are at increased risk of vitamin D deficiency, so you may need to top up your levels with a supplement – talk to your doctor about this.

Where to find more information

Jean Hailes healthy bones website
bonehealthforlife.org.au

Osteoporosis Australia
osteoporosis.org.au

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Reducing the risk of falls

As we age, the risk of a fall can increase, but there are practical ways of reducing that risk.

- Ensure your home has adequate lighting – turn on lights when getting up at night
- Remove rugs
- Arrange furniture to reduce the risk of tripping over objects
- Try to eliminate the need to use stairs
- Be aware that some medications can affect balance – blood pressure medications, sedatives (sleeping tablets), narcotics or sedating pain killers
- Have regular eye checks
- Install rails in the shower, toilet and hallways if needed
- Use non-slip mats in the bathroom
- Wear shoes that adequately support your feet
- Exercise to improve balance and strength