

Osteoporosis and disability

Osteoporosis (thin brittle bones) is a major health concern for people with a disability. It is important for people with a disability and their carers to be aware of the risk factors for osteoporosis. Major risk factors include inadequate nutrition (low calcium intake), inadequate exposure to sunlight and not enough physical activity.

Reducing the risk of osteoporosis

Calcium, vitamin D and physical activity are important factors in helping to reduce the risk of osteoporosis.

Calcium - you need three serves a day

Calcium is important to maintain strong, healthy bones. Many Australians do not get enough calcium from their diet. Research has shown that people with a disability may be at increased risk of poor nutrition, which can result in not having enough calcium in their diet. Dairy foods are the richest source of calcium.

Three serves of dairy food should be consumed every day. One serve of dairy food is equal to one of the following:

- 250mL of milk
- 200g tub of yoghurt
- 1 slice of cheese (30g).

For people who are overweight, reduced fat dairy products are recommended.

Non-dairy sources of calcium

For people who are lactose intolerant or who dislike dairy products, non-dairy sources of calcium include:

- Lactose free milk
- Calcium fortified soy products
- Leafy green vegetables
- Tofu
- Some fish, such as salmon where the bones can be eaten
- Prawns
- Some nuts and seeds (for example Brazil nuts, almonds and sesame seeds).

When the person does not eat dairy foods, contact a dietitian for further information on how to make certain there is enough calcium in the diet.

Vitamin D is important

Vitamin D is important to help the body absorb and use calcium. Even if there is enough calcium in the diet, a low vitamin D level in the blood can result in bones becoming weak, leading to an increased risk of osteoporosis. Several factors affect the amount of vitamin D in the body, including:

- **Sunlight** - in Australia, the majority of the body's vitamin D is formed in the skin when it is exposed to sunlight. Some people with a disability do not receive enough exposure to sunlight and may be at an increased risk of low vitamin D levels. The face and arms should be exposed to 10-15 minutes of sunlight four to six times a week. This should occur before 10am or after 3pm to avoid exposure to harmful UV rays and skin damage.
- **Vitamin D in the diet** - sources of vitamin D in the diet include fatty fish (salmon, herring, mackerel), some meat (liver), eggs, and some foods fortified with vitamin D (such as margarine and fortified milk).

Regular physical activity helps

Regular physical activity, particularly weight bearing exercise, is important to reduce the risk of osteoporosis for three main reasons:

- Physical activity, particularly weight bearing exercise, improves bone density, making the bones stronger and less likely to fracture.
- Physical activity increases muscle strength, so people are less likely to have falls that may result in bone fractures.
- Physical activity can help increase vitamin D levels if it is done outdoors.

Weight bearing exercise

Weight bearing exercise can include:

- **Resistance exercise** - to strengthen bones and muscles. This usually involves lifting weights or moving the body against a source of resistance such as a weight-training machine.
- **Impact exercise** - involves activities where the skeleton is forced to bear high impact upon landing.

People with a disability may be limited in the type and amount of exercise they can participate in. It is important that exercise programs are enjoyable and meet the needs and capabilities of the person.

Different types of weight bearing exercise

Possible group activities include netball, tennis or dancing. Individual activities may include:

- Jumping
- Skipping
- Hopping
- Jogging
- Strength or resistance training exercise programs.

A person who has a physical disability and is confined to a wheelchair may participate in a range of individual or team sporting activity, or undertake exercise programs such as using weights. It is important to remember that any physical activity will help.

It is recommended that some level of physical activity becomes part of a person's daily routine.

If strength or resistance training programs using weights and exercise equipment are chosen, it's important to consult an exercise or rehabilitation expert (such as a physiotherapist) to get an individual assessment and help to develop a program to prevent injury.

Other risk factors for osteoporosis

- **Smoking and alcohol** - smoking and a high consumption of alcohol are factors that contribute to osteoporosis in adults.
- **Some medical conditions and medications** - people with medical conditions such as hypogonadism are at greater risk of osteoporosis. Some medications can play a role in developing osteoporosis: for example, long term use of medications called corticosteroids (such as prednisolone). These medications may be prescribed for people with a disability for important health reasons and should not be stopped without the doctor's advice. In most cases, medications cannot be changed. However, doctors can perform tests to identify if a person is at risk of, or has, osteoporosis and may suggest some management strategies for the person.

Where to get help

- Your doctor
- An accredited practising dietitian, contact the Dietitians Association of Australia
- Osteoporosis Australia www.osteoporosis.org.au
- Australian Physiotherapy Association apa.advsol.com.au

Things to remember

- To help prevent osteoporosis, have three serves of dairy or other calcium-containing foods every day.
- Make some level of appropriate physical activity part of the daily routine.
- Spend 10-15 minutes in the morning sun to get enough Vitamin D.
- Discuss the risk of osteoporosis at your next visit to the doctor.

Want to know more?

Go to More information for support groups, related links and references.

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Better Health Channel

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