

# OSTEOPOROSIS

Bones are responsible for many important functions including movement, organ protection and support for the rest of the body.

Healthy, strong bones are key to leading long, healthy, active and independent lives.

Genes and lifestyle impact how strong bones are. While you can't change your genetics, you can adopt a 'bone-friendly' lifestyle which includes adequate calcium intake, exercise and sufficient vitamin D.

Looking after your bones can help to decrease the risk of fractures and a disease called osteoporosis.



## WHAT IS OSTEOPOROSIS?

Osteoporosis occurs when bones lose calcium and other minerals, making them fragile and more likely to fracture. In Australia, osteoporosis affects 1.2 million people. This number is expected to increase as our population grows older.

Osteoporosis affects more than 1 in 5 women over the age of 65 years, compared with around 1 in 20 men. Women are at greater risk of developing osteoporosis because of the rapid drop in the hormone, oestrogen during menopause.

In men, testosterone levels decline more gradually. As a result, bone mass in men usually remains adequate until later in life. By age 65, both men and women lose bone density at the same rate. It is never too late to start looking after your bones and take steps to reduce the risk of fracture in the future.

## RISK FACTORS FOR OSTEOPOROSIS

Reducing the risk of osteoporosis is a lifetime process. While age, genetics and gender cannot be altered, the following behaviours can help lower the risk of osteoporosis:

- 01** Consuming plenty of calcium-rich foods, such as milk, cheese and yogurt, every day.
- 02** Participating in regular exercise and physical activity.
- 03** Having regular and safe sun exposure for adequate vitamin D production.



## 01 CONSUME PLENTY OF CALCIUM-RICH FOODS

Calcium is essential for building strong bones as well as supporting muscle and nerve function.

Almost 99% of the body's calcium is found in bones, where it combines with other minerals to form the hard crystals that give bones their strength and structure. If we do not eat enough calcium, the calcium within our bones is used for other important body functions. Over a long period of time, bone strength can decline and may increase our risk of osteoporosis.

Milk, cheese and yoghurt are a rich source of calcium in the Australian diet, supplying around 60 per cent of the calcium we eat. While it is true that calcium is found in other foods, meeting calcium needs without dairy foods can be difficult. You need to consume 5 cups of cooked broccoli; 32 brussel sprouts; 165g of almonds; or 5 cups of red beans to provide your body with the same amount of calcium as it will get from one 250ml glass of milk.

The table on the right indicates how many serves of dairy food adults need each day.

Unfortunately, most Australians are missing out on the health benefits that come from consuming milk, cheese and yoghurt as they don't include enough in their diet. It is estimated that 8 out of 10 Australian adults need to increase their intake of the dairy food group in order to meet the Australian Dietary Guidelines.

Some people may be mistakenly missing out on having enough dairy foods as they are watching their weight. Contrary to popular belief, enjoying three to four serves of milk, cheese and yoghurt every day is not linked to weight gain. In fact, for people looking to lose weight, including three to four serves of milk, cheese and yoghurt in a reduced-kilojoule diet can actually help accelerate weight and fat loss, and shrink waist lines.

### MINIMUM RECOMMENDED NUMBER OF SERVES FROM DAIRY FOOD GROUP

	Age (years)	No. of serves per day
<b>MEN</b>	19 – 70	2 ½
	70+	3 ½
<b>WOMEN</b>	19 – 50	2 ½
	50+	4
	Pregnant or breast feeding	2 ½

Adapted from: 2013 Australian Dietary Guidelines. The dairy food group includes milk, cheese, yoghurt and/or alternatives (1 cup [250ml] soy beverage or beverages made from rice or other cereals which contain at least 100mg calcium per 100ml).

### ONE SERVE OF DAIRY IS EQUIVALENT TO:



1 cup milk  
250mL

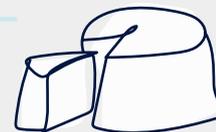


2 slices cheese  
40g

OR



¾ cup yoghurt  
200g



2 slices cheese  
40g

It's recommended that more than 50% of intake from dairy foods is reduced-fat varieties.

\*1 cup (250 ml) soy beverage or beverages made from rice or other cereals which contain at least 100 mg calcium per 100 ml.



## OTHER NUTRITIONAL BENEFITS IN DAIRY FOODS

Besides calcium, dairy foods are also a good source of protein. Protein plays an important role in bone health as it helps build and repair bone tissue and muscles. In fact, our bones are made up of about 50% protein. As people become older, protein requirements increase to help maintain bone and muscle mass and reduce hip fractures.

With a wide variety of dairy foods available, enjoying your recommended amount every day is easy:

- Include yoghurt on your cereal at breakfast time
- Grab a café latte on the way to work
- Try ricotta cheese in a salad sandwich
- Have a smoothie or milkshake for afternoon tea
- For a creamy soup, stir in a generous splash of milk
- Mix together spreadable cream cheese and vanilla yoghurt, then layer onto meringue and berries for a dessert
- Serve curries with a generous dollop of yoghurt
- Toss steamed potato wedges in parmesan cheese before roasting for a great side dish or snack

For recipes and ideas on how to include adequate serves of dairy foods in your healthy eating plan visit [dairyhealth.com.au](http://dairyhealth.com.au)



## 02 PARTICIPATE IN REGULAR PHYSICAL ACTIVITY

Regular physical activity is particularly important for reducing bone loss in adults. Regular activities that can improve bone strength include:

- Weight-bearing exercises
- Progressive resistance training

Aim for at least 30 minutes of various weightbearing and resistance training activities three or more times a week. Visit the Osteoporosis Australia website [osteoporosis.org.au](http://osteoporosis.org.au) for more advice on appropriate exercises.



## 03 HAVE REGULAR AND SAFE SUN EXPOSURE FOR VITAMIN D

Vitamin D plays an important role in bone health. It helps the absorption of calcium from the intestines and also helps to control calcium levels in the blood.

Only a small amount of vitamin D comes from the food we eat, most comes from our bodies producing vitamin D when our skin is exposed to sunlight. Regular and safe sun exposure is recommended depending on the season, where you live and the time of day. For example, moderately fair skinned people with arms exposed, require six to seven minutes of sun exposure mid morning or mid afternoon on most summer days.

Visit: [osteoporosis.org.au](http://osteoporosis.org.au) for more advice on appropriate sun exposure.