



# Three serves



osteoporosis australia

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# Three serves

of dairy every day for calcium and good health

## 3 serves of dairy

Eating 3 serves of dairy every day as part of a healthy, balanced diet will provide most people with their average daily requirement for calcium. Calcium is one of the 10 essential nutrients naturally found in dairy foods. One serve of dairy is equal to:

- 1 glass (250mL) of milk
- 1 tub (200g) of yogurt
- 2 slices (40g) of cheese

The table below shows the approximate number of serves of dairy food needed each day to help ensure you meet your Recommended Dietary Intake (RDI) for calcium throughout life, plus a significant amount of many other essential nutrients.

	Age (years)	RDI for calcium (mg)	No. of serves of dairy
Children	1-3	500	
	4-8	700	
Boys	9-11	1000	
	12-13	1300	
	14-18	1300	
Girls	9-11	1000	
	12-13	1300	
	14-18	1300 <sup>+</sup>	
Men	19-70	1000	
	Over 70	1300	
Women	19-50	1000	
	Over 50	1300	
	Pregnant (over 18)	1000	
	Breastfeeding (over 18)	1000	

## Dairy – the richest source of calcium

Dairy foods such as milk, cheese and yogurt are the major source of calcium in the Australian diet providing around 60% of the calcium consumed. The Dietary Guidelines for Australians specifically recommend that milk, yogurt or cheese be included in our daily diet because of their readily available dietary calcium.

## Calcium

Calcium is a mineral that is stored in bones and teeth where it provides structure and strength. Calcium is also involved in helping muscles and nerves to work properly, clotting blood and regulating enzyme activity.

Calcium is probably best known for the essential role it plays in building and maintaining strong healthy bones. Our childhood and adolescent years are when our bones are growing, developing and strengthening the most. We achieve peak bone mass or maximum bone strength in our early twenties.

Consuming adequate calcium during this time is essential to help maximise our bone density and reduce the chance of osteoporosis later in life. Osteoporosis is a condition where the bones lose calcium, become fragile and tend to fracture more easily. It is a major cause of disability in Australia affecting one in two women and one in three men, over the age of 60.

Consuming enough calcium every day is not only important in childhood and adolescence. From middle age, bones tend to gradually lose mineral and strength, eating enough calcium-containing foods throughout adulthood may help slow bone mineral loss and therefore help reduce the risk of osteoporosis.

## Alternative sources of calcium

Foods such as canned fish eaten with the bones, green leafy vegetables, nuts such as almonds, cereals and legumes also contribute calcium to the diet but in much smaller amounts than dairy foods. Few foods provide as much absorbable calcium per serve as dairy foods.

The following table shows the approximate number of portions of a range of different foods that a person would need to consume in order for their body to absorb the same amount of calcium as it would get from one serve of dairy:

<b>Food</b>	<b>Serving size (g)</b>	<b>No. of serves required to absorb same amount of calcium as from 250ml milk</b>
Milk (regular or low-fat)	250	1.0
Yogurt (regular or low-fat)	200	1.0
Cheddar cheese (regular or low-fat)	40	1.0
Almonds (dry roasted)	28	5.9
Beans (red)	172	14.5
Beans (white)	110	5.2
Bok choy	85	2.4
Broccoli	71	5.5
Brussel sprouts	78	8.3
Cabbage (Chinese)	85	2.4
Cabbage (Green)	75	6.2
Canned fish (sardines)	105	1.1
Cauliflower	62	8.6
Sesame seeds	28	13.0
Soy drink (unfortified)	250	31.0
Soy drink (fortified)	250	1.4
Spinach	90	16.2
Sweet potatoes	164	10.2
Tofu (calcium set)	126	1.3

A number of drinks, such as soy or rice drink are marketed as ‘milk substitutes’. Unlike cows’ milk, these drinks are not naturally high in calcium, but sometimes have calcium added. There is evidence to suggest that this added calcium may not be absorbed by the body as well as the calcium that is present in cows’ milk. It is also important to be aware that these drinks may be low in many of the other important nutrients found naturally in milk.

Calcium supplements are sometimes recommended to boost calcium intake, particularly for individuals who cannot meet their calcium RDI through foods. However supplements cannot substitute for the energy, protein, vitamins and minerals found in food. Care should be taken when taking supplements to ensure that other important nutrients found in food groups such as dairy are not missed from the diet.

### **Dairy’s package of nutrients**

Dairy foods are one of the five core food groups recommended for a healthy balanced diet. While dairy foods are well known for their contribution to calcium intakes, they also contain significant amounts of over nine other essential nutrients such as:

- vitamins A, B12 and riboflavin
- phosphorus, potassium, magnesium and zinc
- protein and carbohydrate

These nutrients are important for healthy blood, nervous and immune systems, eyesight, muscle and nerve function, healthy skin, energy levels and growth and repair in all parts of your body.

Research has shown that children and adults who regularly consume dairy foods have better quality diets – they are more likely to have an adequate intake of many of the essential nutrients than those who eliminate dairy foods or only consume them rarely.

### **Beyond bones**

#### **– some of dairy’s other health benefits**

Dairy foods and their unique package of nutrients don’t just contribute to strong healthy bones and

overall good health, but they may also play a role in reducing the risk of other conditions.

The DASH (Dietary Approaches to Stop Hypertension) diet – a low-fat, low-salt diet that is high in fruit and vegetables and includes 3 serves of low-fat dairy products has been found to be helpful in lowering blood pressure. It has also been shown to lower other risk factors for coronary heart disease such as blood cholesterol levels.

Many people reduce their milk and dairy intake when they are dieting. Research suggests the inclusion of three serves of dairy foods as part of a calorie restricted, weight reducing diet may be helpful in weight management. Choosing from the wide variety of reduced and low-fat dairy foods available may help to achieve a calorie restricted diet. Dairy foods also have a low glycaemic index (GI) which is important in managing blood sugar levels for diabetes.

There is good evidence that cheese can play a role in protecting teeth against tooth decay and milk may reduce the risk of certain cancers such as colon cancer.

So no matter what your age, there are now even more reasons to consume the goodness of dairy every day.

### **Getting your 3 serves**

Getting 3 serves of dairy every day is easy and is something the whole family can get involved in. Choose from the wide variety of regular-fat, reduced-fat<sup>+</sup> and low-fat dairy foods to suit your diet and lifestyle.

### **Here are some quick, simple ideas**

- For a calcium boost, top your cereal and milk with fruit flavoured yogurt.
- Every time you have pasta, try to top it off with shaved or grated parmesan or mozzarella cheese.
- Aim to include cheese in most of your sandwiches.
- Enjoy a tasty cheese and fruit platter at the end of a meal.
- Snuggle up with a warm glass of milk before bed.
- For an energizing fruit smoothie throw together some fruit, yogurt and milk.

\* or 3 serves if at least one serve is a calcium-enriched dairy food.

<sup>+</sup> there is no increase in the RDI for 14-18 year old girls who are pregnant or lactating.