

# The Leading Voice of Nutrition *in Australia*



## Calcium and Vegan Diets

### What is calcium and why is it important?

Calcium is the most abundant mineral in the human body with 98% found in the bones, 1% in teeth, and 1% in other tissues. Calcium is essential for:

- Bone development and maintenance
- Nerve function
- Cardiovascular (heart) health
- Blood clotting

### What if I don't get enough calcium?

When you don't eat enough calcium, your body may take calcium from the stores in your bones. If this happens for a long time, calcium deficiency can lead to osteoporosis (weak bones). Osteoporosis can increase the risk of broken bones, especially in older people.

### Calcium is particularly important for:

- Pregnant and breastfeeding women - calcium is important for both the baby's skeleton and to maintain the mother's bone strength
- Children and teenagers – calcium is important as you are rapidly growing as peak bone mass is achieved as a young adult

### What are some dietary sources of calcium for vegans?

Dairy foods have a lot of calcium, but you can still get enough calcium without eating dairy. Milk alternatives with added calcium, firm tofu, some green leafy vegetables, legumes and nuts can provide similar amounts of calcium.

FOOD	CALCIUM (mg)*
Soy, oat or rice milk with added calcium, 1 cup (250ml)	240-400 <sup>#</sup>
Nut or coconut milk with added calcium, 1 cup (250ml)	188-300 <sup>#</sup>
Blackstrap molasses, 1 tablespoon (15g)	200
Tofu, firm, set with calcium salts (calcium sulphate (E516) or calcium chloride (E509)), 170g	544 <sup>#</sup>
Soybeans, cooked (1 cup)	175
Tahini, unhulled, 1 tablespoon (20g)	116-156 <sup>#</sup>
Sesame seeds, unhulled, 1 tablespoon (15g)	148
Cabbage or bok choy, cooked (1 cup)	130
Navy beans, cooked, (1 cup)	126
Tofu, firm, set with magnesium salts (magnesium chloride (E511)/nigari or magnesium sulphate (E518)), 150g	115-170 <sup>#</sup>
Amaranth grain, cooked, (1 cup)	116

Baked beans (1 cup)	86
Chickpeas/garbanzos, cooked, (1 cup)	80
Almonds, dry roasted, (30g)	70
Dried Figs, 2 pieces	70
Chia seeds, 1 tablespoon (10g)	63
Kidney beans, cooked, (1 cup)	62
Kale, cooked (1 cup)	50
Black beans, cooked, (1 cup)	46
Lentils, cooked, (1 cup)	38
Broccoli, boiled (1 cup)	35
Quinoa, cooked, (1 cup)	31

\*AUSNUT – Australian Food and Nutrient Database, FSANZ 2011-2013, USDA Food Database, 2009 and Australian Food Composition Database 2019. The data is calculated on averages of the varieties listed.

### How much calcium should I aim for each day?

	Amount of Calcium (mg)
Men	1000
Men over 70	1300
Women	1000
Women over 70	1300
• Pregnant Women	1000
• Breastfeeding Women	1000
• Post-menopausal Women	1300
Children	
• 0-6 months	210
• 7-12 months	270
• 1-3 years	500
• 4-8 years	700
• Boys 9-13 years	1000-1300
• Boys 14-18 years	1300
• Girls 9-13 years	1000-1300
• Girls 14-18 years	1300

\*Nutrient Reference Values for Australia and New Zealand, National Health and Medical Research Council

### How can I get enough calcium?

Eat enough calcium rich foods including dairy alternatives with added calcium. Many things can affect how your body absorbs calcium. To make the most of the calcium in the foods you eat, try:

- **Limit salt** - salt increases how much calcium you lose from the body
- **Timing of caffeine** - caffeine (found in tea, coffee, cola and energy drinks) can affect the absorption of calcium. When consuming calcium-rich foods, avoid drinking tea or coffee at the same time.
- **Get enough vitamin D** - vitamin D helps calcium be absorbed into bones. Make sure you get enough vitamin D through safe sun exposure and foods with added vitamin D (e.g. margarines). See Vitamin D fact sheet for more information.
- **Excessive protein intake can increase calcium lost from the body.** While protein is important, consuming more than you need can affect bone health.
- **Phytates** found in plant foods also limit how much calcium is absorbed. Due to the high amount of plant foods eaten by vegetarians and vegans, your calcium needs may be higher due to the effect of phytates on absorption. In this case, supplementation may be a good option.

### Calcium supplements

You may need supplements if you don't eat enough calcium-rich foods or you have increased calcium needs for some reason. Check with your dietitian or doctor if you think you need a calcium supplement.

#### Key Points: Ways to boost the body's use of calcium from a vegan diet

- Eat a variety of calcium-rich foods including green leafy vegetables, calcium-set tofu and dairy alternatives with added calcium e.g. soy milk
- Include other plant sources of calcium regularly in the diet such as almonds, unhulled tahini, dried figs, broccoli and amaranth
- Make sure you get enough vitamin D through safe sun exposure and fortified foods