

Nutrition Information for Older People

How to look after your

Bones



Why is calcium important for bones ?

Osteoporosis is a disease where bones become thin and weak. Osteoporosis mainly affects women and men over the age of 50 because bone loss increases as you get older. Calcium gives bones their strength. When your bones start losing calcium as a natural part of ageing, it becomes even more important to ensure you're getting enough calcium in your diet. Your body cannot make calcium, so calcium in your diet supplies calcium to your bones. A high dietary intake of calcium slows the rate of bone loss.




How do I look after my bones?

3 steps to reduce your risk of developing osteoporosis and fractures:

- Eat a varied diet and have 3 servings of calcium rich food and beverages every day.
- Most days spend about 20-30 minutes outside and let the sun shine on your skin, to make vitamin D.
- Have 30 minutes of weight-bearing physical activity each day.

To maintain bone strength:

- Keep your weight within a healthy range.
 - Limit your intake of alcohol to 2 or less standard drinks a day.
 - Reduce your caffeine intake to less than 6 cups of coffee, tea or cola drinks per day.
 - Be smoke-free.
 - Limit the amount of salt you use in cooking and avoid adding salt to food once served.
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Which foods and beverages are good sources of calcium?

Milk and milk products

Milk and milk products such as cheese, yoghurt, custard and ice-cream are excellent sources of calcium. Although other foods contain calcium, the calcium is best absorbed in milk and milk products. Milk and milk products also contain other nutrients such as protein, phosphorus, zinc and magnesium.

How much is one serving ?

One serving is 1 cup of milk, 1 pottle of yoghurt (150g), 2 slices (40g) of cheese, a bowl of custard or 2 scoops of ice cream (140 g).



Which type of milk should I use?

There are many different types of milk available. Regardless of the brand, the colour of the bottle top or carton helps you identify the type of milk. In general, lower fat milks have more calcium.

- Dark blue top: whole milk.
- Light blue top: reduced fat milk.
- Green top: trim milk.
- Yellow or orange top: calcium enriched milks. These milks are low in fat with a higher protein content and have been enriched with extra calcium.



What if I don't like plain milk ?

- Replace a cappuccino or flat white with a latte or hot chocolate, as these have a larger portion of milk. Make a latte at home. Add half a cup of hot milk to half a cup of strong coffee.
- Drink flavoured milk or flavour plain milk with Milo or Ovaltine.
- Make a milk Milo or hot chocolate using calcium enriched milk.
- Make a fruit smoothie. (See recipe in this leaflet.)
- Enjoy a milk pudding for dessert.



What if I don't drink milk or milk products?

If you avoid milk and milk products, there are alternative sources of calcium:

- Non-dairy milk alternatives fortified with calcium.
- Fish such as canned sardines and salmon eaten with the bones.
- Mussels, fresh or smoked.
- Tofu made with added calcium.
- Almonds (other nuts do not have as much calcium).
- Green vegetables such as broccoli, silver-beet and spinach.



How do I get adequate Vitamin D?

Vitamin D and calcium work together, to strengthen bones. Your body needs vitamin D to absorb calcium into its bones. Food sources of vitamin D are eggs, seafood (sardines, salmon) and some enriched milks, yoghurts and margarines.

It is difficult to get adequate vitamin D from food alone, and the best source of vitamin D is sunshine on your skin. Vitamin D is not made in the skin if you wear sunscreen lotion or if the sun shines through glass. Aim to spend 20 - 30 minutes each day outside in the sunlight. In the summer, this should be before 11.00 am and after 4 pm to avoid sunburn.

If you are unable to get enough calcium from your diet or do not expose your skin to sunlight, you may need a calcium or vitamin D supplement. Discuss with your doctor.

How much calcium and vitamin D do you need?

Recommended Intakes of Calcium and Vitamin D for New Zealanders*

	Age	Calcium (mg)	Vitamin D (µg)
All Children	1 - 3 yr	500	5
All Children	4 - 8 yr	700	5
All Children	9 - 11 yr	1000	5
All Children	12 - 18 yr	1300	5
Women	19 - 50 yr	1000	5
Women	51 - 70 yr	1300	10
Women	71+ yr	1300	15
Men	19 - 50 yr	1000	5
Men	51 - 70 yr	1000	10
Men	71+ yr	1300	15

* Nutrient Reference Values (NRV's) for Australia and New Zealand.

Calcium and vitamin D counter

Type of food	Approx serving size	Calcium (mg)	Vitamin D (µg)
Yellow / orange top: calcium enriched milk	1 glass (200ml)	400	1
Dark blue top: whole milk	1 glass (200ml)	232	-
Light blue top: reduced fat milk	1 glass (200ml)	280	-
Green top: trim milk	1 glass (200ml)	290	-
Soy milk, calcium enriched	1 glass (200ml)	248	-
Almond milk	1 glass (200ml)	240	-
Calcium enriched juice	1 glass (200ml)	70	2
Skim milk powder	2 Tablespoons	186	-
Cheese	2 slice (40gm)	260	-
Cottage cheese	½ cup	73	-
Yoghurt / dairy food	1 pottle (150gm)	210	-
Ice cream	2 scoops	130	-
Rice pudding, canned	1 can (220gm)	246	-
Salmon, canned	1 small can (85gm)	80	8

Sardines, canned	4 sardines	264	3
Tuna, canned	1 small can (85gm)	6	-
Mussels	Smoked (85 gm)	143	2
Tofu	¼ cup	68	-
Peanuts, roasted	¼ cup	22	-
Walnuts	¼ cup	37	-
Almonds	¼ cup	97	-
Lentils, boiled	1 cup	26	-
Baked beans in tomato sauce	1 cup	34	-
Broccoli, boiled	½ cup	30	-
Spinach, boiled	½ cup	40	-
Silverbeet, boiled	½ cup	57	-
Bread, wholegrain	2 med slices	66	-
Dried figs	2	64	-
Prunes	5	22	-
Vitamin D enriched margarine	2 teaspoons (10g)	-	1
Egg	1	-	0.9

- nil or negligible amount

How to add more calcium to your diet

Breakfast

- Make your own 'enriched milk' by adding 4 tablespoons of skim milk powder to a litre of milk. Use this milk in hot drinks, with cereal and in cooking.
- Make porridge with enriched milk instead of water, then serve with yoghurt and fruit.
- Look out for breakfast cereals that are calcium enriched, then add enriched milk.
- Sprinkle 1 tablespoon of skim milk powder onto muesli, before serving with milk and extra yogurt. Fruit yoghurt is delicious with any cereal.
- Pancakes with fruit, maple syrup and yoghurt are a yummy treat breakfast.
- Try savoury crepes filled with grated cheese, mushroom, ham and fresh herbs.
- If using non-dairy milks ensure they contain calcium.

Lunch or Dinner

- Toast wholegrain bread and top with cheese, canned sardines or salmon.
- Add grated cheese to scrambled egg or an omelette.

- Add 2 tablespoons of skim milk powder to each portion of mashed potatoes or other mashed vegetables.
- Add skim milk powder or grated cheese to meat loaf or hamburger mixtures.
- Enhance salads with crumbled feta cheese, grated cheddar cheese or toasted almonds.
- Try substituting evaporated or calcium enriched milk for half the water, when making condensed or packet soups. Or add 2 tablespoons of skim milk powder per serve of soup.
- Make your own salad dressing using plain yoghurt, lemon juice and herbs or a little grainy mustard. Add garlic if desired.
- Add plain yoghurt to a curry or soup after cooking.
- Make fish pie with a white sauce and sliced boiled egg, top with mashed potato and grated cheese.
- Add finely sliced spinach or silverbeet to salads or coleslaws.

- Make mini pizzas topped with mozzarella cheese or crumbled feta and a small single serve can of flavoured salmon, tuna or sardines.
- Add cheese or white sauce to vegetables or pasta. Combine with salmon and mushrooms.

Dessert

- Enjoy milk puddings, instant puddings or mousses, rice pudding, bread and butter pudding, custard, yoghurt or ice cream. Milk puddings such as custard and rice pudding can be bought ready prepared from the supermarket.

Snacks

- Yoghurt, dairy food, or custard.
- A handful of figs, prunes or almonds.
- Cheese scones or muffins.
- Toasted English muffins with grilled cheese.
- Cheese and crackers.

Recipe

Fruit Smoothie

Make 1 large serving providing 500 mg calcium

Ingredients

200 ml milk (you can use calcium enriched milk)

½ cup yoghurt

½ cup fruit - banana, fresh or frozen berries or canned apricots or peaches

1 teaspoon honey

Method

1. Blend all ingredients together using a blender or food processor.
2. Serve chilled.



What physical activity should I be doing for 30 minutes a day ?

Physical activity helps you maintain a healthy body weight, which helps keep bones strong. Physical activity that is weight bearing and/or improves balance is useful to decrease your risk of falling and fracturing bones. Walking, dancing, golf, tennis, cycling, gardening, low impact aerobics and tai chi all help strengthen bones. Strength training with weights is particularly helpful.

Other pamphlets in the Nutrition Information for Older People series:

- Healthy Eating for Older People
- Fibre and Fluid for Healthy Bowels
- How to Overcome a Poor Appetite
- Quick Easy Meals
- Shopping and Cooking for One
- Are You Drinking Enough?
- How to Eat More Vegetables and Fruit
- How to Gain Weight

Health New Zealand
Te Whatu Ora

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For further copies of this brochure contact Community Health Information Centre, PO Box 1475, Christchurch.