

# Am I Eating Well for My Bones?

Eating well helps to keep your bones strong, and to prevent and manage osteoporosis. Osteoporosis (os-tee-oh-puh-roh-sis) is when bones become weak. Weak bones break (fracture) more easily.

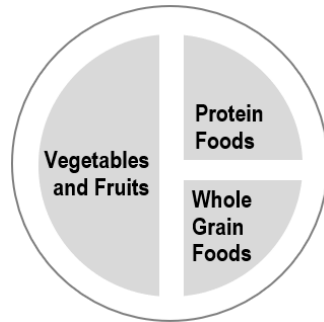
To eat well for strong bones, eat a variety of foods, get enough calcium and protein, and take a vitamin D supplement.

## Eat well

Eating a variety of foods each day from [Canada's food guide](#) promotes bone health.

At each meal:

- Have plenty of vegetables and fruits
- Eat protein foods
- Choose whole grain foods



## Protein

### Eat protein foods at each meal

Protein helps build and repair bones. It also helps you maintain muscle mass and body weight, which are important for bone health and to prevent falls.

### Which foods have protein?

- yogurt, cheese, cottage cheese
- eggs, meat, poultry, fish
- milk, fortified soy beverage
- beans, lentils, nuts, seeds, tofu



To learn more, visit [www.ahs.ca/nutritionhandouts](http://www.ahs.ca/nutritionhandouts) and search 'Protein'.

If you lose weight without trying or have a poor appetite, talk to your healthcare provider about ways to add calories and protein to your diet.

## Calcium

Calcium helps to build bones and to keep them strong. Make sure you get the right amount of calcium each day.

Age	Recommended calcium from food and supplements
19–50 years	1000 mg (milligrams) per day
Over 50 years	1200 mg per day

Osteoporosis Canada, 2010

Spread out your calcium throughout the day to help you absorb more. There is no benefit to getting more calcium than the amounts in the table above.

### Try to get the calcium you need from food first

Food sources of calcium have other important nutrients for bone health.

### Read food labels to find out how much calcium is in food

This  $\frac{3}{4}$  cup (175 g) serving of plain yogurt has 340 mg calcium:

Nutrition Facts	
Per $\frac{3}{4}$ cup (175 g)	
<b>Calories</b> 100	<b>% Daily Value*</b>
<b>Fat</b> 4 g	5 %
Saturated 2 g	10 %
+Trans 0 g	
<b>Carbohydrate</b> 10 g	
Fibre 0 g	0 %
Sugars 10 g	10 %
<b>Protein</b> 7 g	
<b>Cholesterol</b> 15 mg	
<b>Sodium</b> 105 mg	6 %
Potassium 350 mg	7 %
<b>Calcium</b> 340 mg	<b>26 %</b>
Iron 0.3 mg	0 %
*5% or less is <b>a little</b> , 15% or more is <b>a lot</b>	

## Which foods have calcium?

### Best Sources: About 300 mg or more

Milk, lactose-reduced milk, buttermilk, and goat's milk	1 cup (250 mL)
Fortified plant-based beverages such as soy, almond, or oat	1 cup (250 mL)
Hard cheese such as cheddar, Gouda, mozzarella, or Swiss	1 ½ oz (50 g)
Plain yogurt	¾ cup (175 mL)
Fortified plant-based yogurts such as coconut	¾ cup (175 mL)
Ricotta cheese	½ cup (125 mL)
Skim milk powder	¼ cup (24 g)
Tofu made with calcium	¾ cup (150 g)

### Good Sources: About 200 mg

Flavoured yogurt	¾ cup (175 mL)
Camembert or feta cheese	1 ½ oz (50 g)
Kefir	¾ cup (175 mL)
Paneer	1 ½ oz (50 g)
Parmesan cheese, shredded	3 Tbsp (15 g)
Pudding made with milk	½ cup (125 mL)
Salmon or sardines, canned with bones	2 ½ oz (75 g)
Soup made with milk	1 cup (250 mL)
Blackstrap molasses	1 Tbsp (15 mL)

### Sources: About 100 mg

Almonds, Brazil nuts	¼ cup (60 mL)
Almond butter	2 Tbsp (30 mL)
Bok choy, kale, and collard or mustard greens, cooked	½ cup (125 mL)
Calcium-fortified orange juice	½ cup (125 mL)
Chia seeds	2 Tbsp (30 mL)
Cottage cheese	½ cup (125 mL)
Evaporated milk	2 Tbsp (30 mL)
Seaweed	1 cup (250 mL)
Sesame or poppy seeds	1 Tbsp (15 mL)
White beans, navy beans, or soybeans, cooked	¾ cup (175 mL)

Nutrient amounts from Canadian Nutrient File, 2015

## Many other foods have small amounts of calcium

Most people get at least 300 mg of calcium per day from eating a variety of foods.

### Calcium sample day of eating

#### Breakfast

¾ cup (175 mL) yogurt topped with fresh, frozen, or canned fruit, cereal, and nuts



#### Lunch

Wrap filled with chicken, 1 ½ oz (50 g) cheese, cucumber, bell pepper, cabbage and dressing



#### Supper

Salmon, green beans and potatoes, 1 cup (250 mL) milk or fortified soy beverage



## Do I need a calcium supplement?

You may need a calcium supplement if:

- you don't include any milk or dairy foods in your diet
- you don't get enough calcium from food
- your healthcare provider recommends you take a calcium supplement

Talk to your healthcare provider before taking a calcium supplement.

### Add up your daily calcium

Fill in the blanks below to see how much calcium you get every day.

My calcium recommendation is _____mg/day	
My calcium intake from eating a <b>variety of foods</b>	300 mg/day
+ My calcium intake from <b>Food Sources of Calcium</b>	_____mg/day
+ My calcium intake from <b>supplements</b>	_____mg/day
Use the label on the supplement bottle	
= My <b>total daily</b> calcium	_____ mg/day

### Does your total daily calcium match your calcium recommendation?

If not, you may need to increase the amount of calcium you get from food or supplements.

## Calcium supplements

If you need to take a calcium supplement, look at the amount of calcium in one dose. To absorb more calcium, don't take more than 500 mg of calcium at one time.



Calcium affects how some medicine works. Your pharmacist can tell you the best times of the day to take your medicine and supplements.

### Types of calcium supplements

**Calcium carbonate:** Take this type of calcium with food so it is better absorbed by your body.

**Calcium citrate:** Take this type if you take medication to reduce stomach acid or prevent gastric reflux. It can be taken at any time of day, with or without food. It's often suggested for older adults.

## Vitamin D

### What does vitamin D do for my body?

Vitamin D helps your body to:

- absorb and use calcium from your diet and calcium supplements
- increase muscle strength (which may reduce your risk of falling)

### Where can I get vitamin D?



**Sunlight:** Our skin makes some vitamin D from sunlight. However, people living in Alberta get little or no vitamin D from sunlight from October to March.



**Food:** Some foods have vitamin D. Most of us do not get much vitamin D from food.



**Supplements:** Vitamin D supplements are recommended for all Albertans. Supplements come in many forms such as tablets, softgels, sprays, and drops.

## Take a vitamin D supplement

### How much vitamin D do I need to take?

#### 19–50 years at risk of osteoporosis:

400–1000 IU (10–25 µg) per day

#### 19–50 years with osteoporosis:

800–2000 IU (20–50 µg) per day

#### Everyone over 50 years:

1000–2000 IU (25–50 µg) per day

Osteoporosis Canada, 2010 and Towards Optimized Practice, 2016

### My healthcare provider suggests

\_\_\_\_\_ IU vitamin D a day.

(IU = International Units, µg = micrograms)

### Look for a supplement that has vitamin D<sub>3</sub>.

Vitamin D<sub>3</sub> is the best choice for most people. The label on your supplement will say what form of vitamin D it has. Choose vitamin D<sub>2</sub> if you're looking for a vegan form of vitamin D.

**Don't take more than 2000 IU (50 µg) of vitamin D a day** from supplements unless your healthcare provider tells you to take more.

## What other factors affect bone health?

### Too much sodium, caffeine, and alcohol can harm your bones

- **Limit sodium (salt) intake to less than 2300 mg a day.** Eat less processed and packaged foods. Read labels to find foods lower in sodium. Choose fresh foods and foods with no salt added.
- **Limit caffeine to 400 mg or less a day.** One cup (250 mL/ 8 oz) of coffee has about 100–150 mg of caffeine. Caffeine is also found in coffee-based drinks, colas, tea, and energy drinks.
- **Drinking less alcohol is better for your health.** More than 2 drinks a day increases your risk of breaking a bone. Talk to your healthcare provider if you have questions about alcohol and your health.

## Physical activity and exercise

Being active slows bone loss and can prevent falls and fractures. The best exercises are:

- strength training such as using body weight, resistance bands, or weights.
- posture awareness and exercises to improve endurance in the back muscles.
- balance training such as Tai Chi, holding poses, or walking in a pattern.
- weight-bearing aerobic exercises such as walking, dancing, and stair climbing.

If you've had a fracture or have pain, talk to your healthcare provider before starting a physical activity program.

## Quit smoking

Smoking is a risk factor for osteoporosis.

## Take home messages

- Eat a variety of healthy foods each day
- Eat protein foods at each meal
- Try to get the calcium you need from food
- Take a vitamin D supplement each day

## My action plan

Making changes to your diet and lifestyle will take time and can make a difference in your bone health.

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## More information

### Nutrition and bone health

Osteoporosis Canada

[www.osteoporosis.ca](http://www.osteoporosis.ca)

- Calcium Calculator  
[osteoporosis.ca/calcium-calculator/](http://osteoporosis.ca/calcium-calculator/)
- Recipes  
[osteoporosis.ca/recipes/](http://osteoporosis.ca/recipes/)

### Free or low-cost food

- For information on where to find free food in Alberta visit [Free Food in Alberta](#).

### 211 Alberta

- Free and confidential service.
- Provides information on community services, food hampers, and free or low-cost meals.
- Call, text, or phone 211 Alberta:
  - dial 211
  - text INFO to 211
  - visit [www.ab.211.ca](http://www.ab.211.ca) and click "live chat"

## More support



- [Health Link](#) has dietitians to answer nutrition questions.
- Call 811 and ask to talk to a dietitian or complete a [self-referral form](#) on [ahs.ca/811](http://ahs.ca/811).