

# Calcium and bone health

For people with cancer who are at risk of osteoporosis

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## **This booklet will give you information about:**

- what osteoporosis is
- how cancer and treatment can affect your risk of osteoporosis
- diet and lifestyle changes for good bone health
  - get enough calcium
  - take a vitamin D supplement
  - eat protein foods
  - exercise often
  - avoid smoking
  - limit alcohol
- where to find more information

## What is osteoporosis?

As you get older, your bones naturally get thinner. When your bones get too thin it is called osteoporosis. Thin bones are weak. They can break easily from falls or movements.

## How does cancer affect my risk of osteoporosis?

Some types of cancer and treatment can weaken your bones. This puts you at higher risk for osteoporosis. These include:

- hormone therapies, like aromatase inhibitors (letrozole, anastrozole, exemestane), hormonal injections (goserelin, leuporelin) and certain prostate cancer medications (enzalutamide, apalutamide, abiraterone)
- long-term use of steroid medications (drugs), like prednisone and dexamethasone
- treatments that cause menopause like some chemotherapies, surgery to remove both ovaries, and radiation to the pelvis
- some immunosuppressant medications, like cyclosporine
- bone cancer or cancer that spreads (metastasizes) to your bone

**If you are at higher risk of osteoporosis, take medications recommended by your health-care team. Make lifestyle changes. Follow Canada's Food Guide when you eat. This can help keep your bones healthy.**

## Get enough calcium

Calcium is needed to build bone. Your body absorbs calcium from food the best. Try to eat enough calcium-containing foods to meet your recommended daily intake of calcium.

Recommended daily intake of calcium		
Age	Females	Males
Under 51 years	1000 mg	1000 mg
51-70 years	1200 mg	1000 mg
Over 70 years	1200 mg	1200 mg

Track how much calcium you eat in a day by using this list of calcium-containing foods, reading nutrition facts tables, or going to [osteoporosis.ca/calcium-calculator](https://osteoporosis.ca/calcium-calculator).

If you do not get enough calcium from food, take a supplement to make up the difference. Take 500 mg or less of calcium at a time. For best absorption, spread calcium foods and supplements throughout the day. **Do not take more than 2000 mg of calcium a day from food and supplements.**

Nutrition Facts	
Per ¾ cup (175 g)	
<b>Calories 180</b>	% Daily Value*
<b>Fat / Lipides 9 g</b>	% valeur quotidienne*
Saturated / saturés 6 g	12 %
+ Trans / trans 0 g	32 %
<b>Carbohydrates / Glucides 8 g</b>	
Fibre / Fibres 0 g	0 %
Sugars / Sucres 4 g	4 %
<b>Protein / Protéines 16 g</b>	
<b>Cholesterol / Cholestérol 35 mg</b>	
<b>Sodium 55 mg</b>	4 %
<b>Potassium 250 mg</b>	1 %
<b>Calcium 175 mg</b>	13 %
<b>Iron / Fer 0.1 mg</b>	1 %
*5% or less is a little, 15% or more is a lot	

Approximate amount of calcium per serving in foods*	
500 mg	<ul style="list-style-type: none"> <li>✓ Greek yogurt, plain (¾ cup/175 ml)</li> <li>✓ calcium-fortified tofu (4.5 oz./150 g)</li> </ul>
400 mg	<ul style="list-style-type: none"> <li>✓ Swiss cheese (1.5 oz./50 g)</li> <li>✓ Greek yogurt, fruit flavoured (¾ cup/175 ml)</li> </ul>
300 mg	<ul style="list-style-type: none"> <li>✓ milk (skim, 1%, 2%, whole 3.25% or chocolate) or buttermilk (1 cup/250 ml)</li> <li>✓ skim milk powder (¼ cup/60 ml)</li> <li>✓ yogurt, plain (¾ cup/175 ml)</li> <li>✓ ricotta cheese (½ cup/125 ml)</li> <li>✓ firm cheese, like cheddar, mozzarella, gouda, or paneer (1.5 oz./50 g)</li> <li>✓ nutrition supplement drinks (1 cup/250 ml)</li> <li>✓ calcium-fortified plant-based beverages like soy, almond, or rice (1 cup/250 ml)</li> <li>✓ calcium-fortified orange juice (1 cup/250 ml)</li> </ul>
200 mg	<ul style="list-style-type: none"> <li>✓ kefir, plain (¾ cup/175 ml)</li> <li>✓ yogurt, fruit flavoured (¾ cup/175 ml)</li> <li>✓ blackstrap molasses (1 Tbsp./15 ml)</li> <li>✓ salmon with bones, canned (3 oz./100 g)</li> <li>✓ sardines with bones, canned (1.5 oz./50 g)</li> </ul>
150 mg	<ul style="list-style-type: none"> <li>✓ drinkable yogurt (¾ cup/175 ml)</li> <li>✓ tempeh (4.5 oz./150 g)</li> <li>✓ sesame paste (1 Tbsp./15 ml)</li> <li>✓ collard green, cooked (½ cup/125 ml)</li> </ul>

100 mg	<ul style="list-style-type: none"> <li>✓ cottage cheese (½ cup/125 ml)</li> <li>✓ parmesan cheese (2 Tbsp./30 ml)</li> <li>✓ ice cream (½ cup/125 ml)</li> <li>✓ soy yogurt, plain (¾ cup/175 ml)</li> <li>✓ almonds (¼ cup/60 ml)</li> <li>✓ sesame seeds (1 Tbsp./15 ml)</li> <li>✓ navy beans (¾ cup/175 ml)</li> <li>✓ spinach, rapini, bok choy, beet green, or turnip greens, cooked (½ cup/125 ml)</li> </ul>
50 mg	<ul style="list-style-type: none"> <li>✓ chickpeas, kidney, pinto, black, lima (butter), mung, soy (edamame), or snap beans (¾ cup/175 ml)</li> <li>✓ textured vegetable protein, cooked (½ cup/125 ml)</li> <li>✓ Brazil nuts (¼ cup/60 ml)</li> <li>✓ almond butter (1 Tbsp./15 ml)</li> <li>✓ chia seeds (2 tsp/10 ml)</li> <li>✓ amaranth, cooked (½ cup/125 ml)</li> <li>✓ winter squash (acorn, butternut) or sweet potato, cooked (½ cup/125 ml)</li> <li>✓ kale, Swiss chard, okra, gai lan, or cabbage, cooked (½ cup/125 ml)</li> <li>✓ spring mix, fennel, Brussels sprouts, raw (1 cup/250 ml)</li> <li>✓ figs, dried (4 fruits)</li> <li>✓ orange, raw (1 medium fruit)</li> </ul>

\*Calculated using Canadian Nutrient File data when available.

## **Take a vitamin D supplement**

Vitamin D helps your body absorb calcium. Only a few foods contain vitamin D. Do not rely on sunshine to get vitamin D.

Your health-care team may recommend you take 1000 IU (International Units) a day of vitamin D as a supplement if you are at higher risk of osteoporosis.

**Do not take more than 4000 IU of vitamin D from food and supplements in a day.**

**Talk to your pharmacist about which supplements are right for you.** Ask your pharmacist:

- Which supplement(s) should I take?
- How much should I take? Calcium and vitamin D you get from food and/or a multivitamin-mineral supplement count toward your intake.
- When should I take my supplement?
- Will my supplement interact with my other medications or cancer treatments?

## **Eat protein foods**

Protein helps build and repair bones and muscles. Eat a high-protein food at each meal and snack.

High-protein foods include meat, poultry, fish, eggs, soy (like tofu), legumes (like dried beans, peas, and lentils), nuts and seeds. Dairy products, like milk, yogurt, cheese, and kefir, are a good source of protein and calcium.

## Exercise often

Exercise helps to harden bones, increase muscle strength, coordination, and balance. This can reduce your risk of a fall.

Build up to doing 150 minutes of exercise each week. Choose exercises that:

- improve balance, like Tai chi and standing on 1 foot
- build strength, like lifting weights or resistance bands
- make it easier to do daily tasks (functional exercise), like climbing stairs or going from sitting on a chair to standing

### **Talk to your doctor before you start a new exercise.**

Wellspring Cancer Support ([wellspring.ca](https://wellspring.ca)) offers free exercise programs to people living with cancer. Visit [sunnybrook.ca/exerciseandcancer](https://sunnybrook.ca/exerciseandcancer) for more information.

## Avoid smoking

Smoking makes your bones weaker. Quitting smoking may reduce your risk of osteoporosis. Talk to your health-care team or visit [sunnybrook.ca/smoking](https://sunnybrook.ca/smoking) for support if you want to quit smoking.

## Limit alcohol

Limit drinking alcohol. Drinking too much alcohol can weaken your bones. If you choose to drink alcohol, follow [Canada's Guidance on Alcohol and Health](#) from the Canadian Centre on Substance Use and Addiction.

# Where can I find more information?

When you search for information, make sure to look for trustworthy sources. The following websites offer reliable information based on scientific research.

- Osteoporosis Canada: [osteoporosis.ca](https://osteoporosis.ca)
- Canadian Cancer Society: [cancer.ca](https://cancer.ca)
- Cancer Care Ontario: [cancercareontario.ca](https://cancercareontario.ca)

## Notes from my health-care team:

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Talk to your health-care team if you have questions about your bone health.

**Call the Odette Cancer Centre at 416-480-5000,  
Monday to Friday 9:00 a.m. - 4:30 p.m.**

This resource should be used for information and does not replace medical advice. For questions, concerns, or additional information, contact your health-care team. This resource is for personal use only.