

Calcium and Vitamin D for healthy bones in people over 50 years

Having enough calcium and vitamin D can help keep your bones healthy and prevent osteoporosis. This handout shows you how to increase your intake of calcium and vitamin D.

What is osteoporosis?

Osteoporosis is a disease that affects your bones. Bone is living tissue which is constantly being broken down and rebuilt. If you have osteoporosis, more bone is broken down than is rebuilt or replaced. As your bones become thinner, your risk for fractures or broken bones increases. The bones that are most likely to break are in your hip, spine, rib and wrist.

Osteoporosis is often known as "the silent thief" because bone loss does not have any symptoms.

A bone mineral density test can tell you how strong your bones are. Ask your doctor if you need a bone mineral density test.

Osteopenia is the term used for bones that are less dense than normal, but not as severe as in osteoporosis. A person with osteopenia is at risk for getting osteoporosis.

What is calcium?

Calcium is a mineral that is important at all ages. Calcium helps keep your bones strong. If you do not get enough calcium from the foods that you eat, your body will take calcium out of your bones to get the amount it needs. This can cause you to lose bone.

How much calcium do I need each day?

The Osteoporosis Society of Canada recommends that people over 50 years old need 1200 mg of calcium every day. If you do not get enough calcium from food, you may need to take a supplement.

Here is a simple way to know if you are getting enough calcium from food:

1. Start off by giving yourself 300 mg of calcium for the foods you usually eat every day. This is because there is calcium in a variety of foods including oranges, bread and eggs.
2. Add 300 mg for any of these high calcium foods you eat: such as:
 - 1 cup of milk (all types including whole, 2%, 1%, skim or chocolate)
 - 1 cup of calcium fortified almond, rice or soy beverage
 - 1 cup of fortified (or calcium rich) orange juice
 - $\frac{3}{4}$ cup yogurt
 - 1 cube (1.5 oz or 50 grams) of cheese
 - 2 slices of processed cheese

Write your daily total here _____

If you are not getting 1200 mg of calcium from your food, then you need to increase sources of calcium in your diet (see page 4 for more foods that have calcium) or take a calcium supplement.

What can I do if I am not getting enough calcium from food?

If you are not getting enough calcium from the food you eat, you may need to take a calcium supplement such as calcium carbonate or calcium citrate. Calcium supplements come as tablets, capsules, liquids, soft chews and gummies.

Before you take a calcium supplement, talk with your doctor, nurse, pharmacist or dietitian as too much calcium can be harmful for your health. If you need to take a calcium supplement, do not take more than 500 mg at one time for proper absorption.

Review all over-the-counter vitamins and medications with your pharmacist to see if you are getting other sources of calcium.

Look at the table on page 4 to see some foods that have calcium.

Calcium in some foods

Food	Serving	Calcium (mg)
Milk – 2%, 1%, skim	1 cup	300
Orange juice – fortified with calcium	1 cup	300
Almond, rice or soy drink – fortified with calcium	1 cup	300
Cheese – hard, such as cheddar, gouda, mozzarella	1.5 oz (50 g)	300
Cheese – processed	2 slices	300
Yogurt	$\frac{3}{4}$ cup (175 g) small container (100 g)	200 to 300 90 to 170
Yogurt - Greek	$\frac{3}{4}$ cup (175 g) small container (100 g)	150 to 220 85 to 130
Kefir	$\frac{3}{4}$ cup (175 g)	190
Buttermilk	1 cup	285
Salmon – with bones, canned	$\frac{1}{2}$ can	240
Sardines – with bones	$\frac{1}{2}$ can	200
Soybeans – cooked	1 cup	170
Figs – dried	10	150
Tofu with calcium sulphate	$\frac{1}{2}$ cup (3 oz)	130
Milk pudding	$\frac{1}{2}$ cup	100 to 200
Almonds	$\frac{1}{4}$ cup	95
Muffin – bran	1 medium	84
Ice cream	$\frac{1}{2}$ cup	80
Bok choy	$\frac{1}{2}$ cup	75
Cottage cheese – 2%, 1%	$\frac{1}{2}$ cup	75
Beans – cooked, lima or kidney	1 cup	50
Broccoli – cooked	$\frac{3}{4}$ cup	50
Orange	1 medium	50
Bread – whole wheat	2 slices	40
Instant oatmeal – fortified with calcium	1 pouch	15
Banana	1 medium	10

What is Vitamin D?

Vitamin D helps your body use calcium from food.

If you do not get enough vitamin D, you can lose bone because your body is not able to absorb all the calcium that it needs. The need for vitamin D increases after the age of 50.

You can get vitamin D from sunlight, food or a supplement. However, it is difficult to get enough vitamin D from food alone. Also, it is difficult to get enough vitamin D from the sunlight all year around in Canada as there is less sunlight during October to April. You will most likely need to take a vitamin D supplement. Most calcium supplements contain vitamin D.

How much vitamin D do I need daily?

Adults over 50 years of age, who have osteoporosis or are at risk for osteoporosis, should get 800 to 2000 IU of vitamin D3 or cholecalciferol, every day.

Talk with your doctor, pharmacist, nurse or dietitian about how much vitamin D3 to take in a supplement.

Look at the table on page 6 to see foods that have vitamin D.

Vitamin D in some foods

Food	Serving	Vitamin D (IU)
Salmon – wild, fresh*	3 oz	1000
Salmon – pink, canned	3 oz	530
Mackerel *	3 oz	350
Salmon – farmed, fresh*	3 oz	250
Sardines – canned	3 oz	230
Tuna – light, canned	3 oz	200
Shitake mushrooms – sundried	10 g	166
Shrimp*	3 oz	120
Milk – 2%, 1%, skim, chocolate, buttermilk or lactaid	1 cup	100
Almond, rice or soy drink – fortified with vitamin D	1 cup	100
Orange juice – fortified with vitamin D	1 cup	100
Yogurt drink	200 ml	100
Yogurt made with vitamin D fortified milk	175 g	80 to 100
Yogurt made with vitamin D fortified milk	100 g	40 to 60
Cereals – fortified with vitamin D	3/4 cup	40
Margarine – fortified	1 tsp	30
Egg yolk	1 large	20

* These are approximate values for vitamin D as the content can vary for fresh fish. Frying fish in oil can greatly reduce the vitamin D content.

What decreases calcium and vitamin D absorption?

Cigarette smoking and alcohol intake are associated with bone loss. You may want to talk to your doctor about a smoking cessation program and recommendations for alcohol.

For more information

Visit these websites:

www.osteoporosis.ca

www.dairygoodness.ca

www.dietitians.ca

www.eatrightontario.ca

Metric and Imperial Size conversion chart

This chart may help you with serving sizes:

Metric and Imperial Sizes	
250 ml	= 1 cup
175 ml	= 3/4 cup
125 ml	= 1/2 cup
60 ml	= 1/4 cup
15 ml	= 1 tablespoon (tbsp)
5 ml	= 1 teaspoon (tsp)
30 grams (g)	= 1 ounce (oz)