

Calcium and Vitamin D For Bone Health

Calcium ^(2,3)



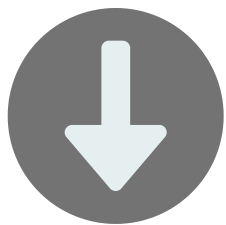
- A mineral that keeps bones strong.
- Our bodies cannot make calcium, so we need to get it from foods, drinks and supplements (when needed).

How much calcium you need each day ⁽¹⁾

Ages 19 to 50	1,000 mg
Ages 51 to 70	Men: 1,000 mg Women: 1,200 mg
Ages 71 and older	1,200 mg

(mg = milligrams)

What happens if you get...



Too little calcium ^(2,3)

- Increased risk of **osteoporosis**.
 - A disease that weakens bones, making them easy to break.
- Muscle pain, spasms, or tingling.
- Numbness in hands and feet.



Too much calcium ^(2,3)

- (from supplements) can cause kidney stones and other issues.
- **Upper limit** for calcium is **2,500 mg/day** for adults aged 19–50, and **2,000 mg/day** for adults over 50.

Vitamin D ^(2,3)



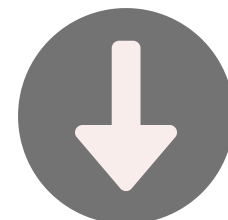
- Helps your body use calcium.
- It is like a "key" that unlocks the benefits of calcium for your bones.
- Supports muscle function and balance, reducing risk of falls and fractures.

How much vitamin D you need each day ⁽¹⁾

Ages 19 to 70	600 IU
Ages 71 and older	800 IU

(IU = International Units)

What happens if you get...



Too little vitamin D ^(2,3)

- Thin and weak bones.
- Mood changes, like depression.
- Muscle weakness, aches, or cramps.



Too much vitamin D ^(2,3)

- Can cause a buildup of calcium in blood, leading to:
 - Nausea and vomiting.
 - Kidney problems (ex. calcium stones).
 - Upper limit for vitamin D is **4,000 IU** for people aged 9+.

Where you can get vitamin D ^(2,3)

- Found in **very few foods**, like:
 - **Fortified milk.**
 - **Fortified orange juice.**
 - **Eggs.**
 - **Fatty fish.**
- Most people can benefit from a supplement.

Where you can get calcium ^(2,3)

Get most of your calcium from foods, like:

- **Dairy** (milk, cheese, yogurt, kefir).
- **Fish** (salmon/sardines canned with bones).
- **Green leafy vegetables** (kale, bok choy, nappa cabbage, broccoli).

Common Foods with Calcium and/or Vitamin D ^(2,3)

Dairy & Alternatives



Food Item	Amount	Calcium (mg)	Vitamin D (IU)
Milk (skim, 1%, 2%, whole)	1 cup (size of a coffee mug)	300	100
Plain yogurt	3/4 cup (size of a tennis ball)	300	60
Soy beverage (fortified)	1 cup	*80-500	*85-120



Meat & Alternatives



Paneer	3.5 oz (size of a soap bar)	103	40
Sardines	3 oz (size of your palm)	325	120
Tofu (made with calcium)	5 oz (size of a Gala apple)	235	0
Salmon (with bones, canned)	3 oz	160	410
Legumes like kidney beans, chickpeas, or lentils (cooked/canned)	3/4 cup	100	0



Vegetable & Fruit



Orange juice (fortified)	1 cup	310	100
Kale (frozen, cooked)	1/2 cup (size of a golf ball)	95	0
Broccoli (cooked)	1/2 cup	33	0
Almonds	1 oz (one handful)	90	0

References:

1. Government of Canada. (2023). Dietary reference intakes tables. Health Canada.

2. National Osteoporosis Foundation. (2018). *Boning up on osteoporosis*.

3. Public Health Agency of Canada. (2023). *Osteoporosis and related fractures in Canada: Report from the Canadian Chronic Disease Surveillance System 2020*.

*Nutrient amounts can be different depending on the food's brand.

Fortified means when extra vitamins or minerals are added to a food product.

To see if you are getting enough of a nutrient, keep a daily list of the foods you eat and the amounts. Then, add them up.

What eating enough calcium can look like in a day

(for a 45 year old aiming to get 1000 mg each day)



1 cup 2% milk

300 mg



3/4 cup plain yogurt

300 mg



1 oz almonds

90 mg



3 oz sardines

230 mg



1/2 cup kale

95 mg

Total calcium

1015 mg

What eating enough vitamin D can look like in a day*

(for a 45 year old aiming to get 600 IU each day)



1 cup 2% milk

100 IU



3 oz salmon canned with bones

410 IU



1 cup fortified orange juice

100 IU

Total vitamin D

610 IU

Did you know?

- **Not all foods with calcium are fully absorbed by the body.**
 - Foods like rhubarb, Swiss chard, and spinach contain oxalates, which stick to calcium and prevent it from being absorbed.
- **Taking calcium supplements? Make sure you don't consume more than 500 mg of calcium at one time, whether it's from food or supplements. We can only absorb about 500 mg of calcium at once.**
- **Your skin can make vitamin D from sunlight. But...**
 - How much you make depends on where you live, the season, and your skin type.
- ***Most of us need a vitamin D supplement or multivitamin to meet our daily needs, especially since it's so hard to get enough from food alone.**
 - For adults over 51, Health Canada recommends taking **400 IU** of vitamin D daily in addition to food sources.
 - For most adults, a common and safe dose is **1,000 IU/day**.
 - Take it with food since vitamin D is **absorbed better with fat**.
- **Unsure about how much vitamin D you need? You can get a blood test to check your levels. This usually costs around \$45 unless you have osteoporosis or osteopenia, in which case it might be covered.**