

Calcium, Vitamin D and Bone Health



UHN

Information about getting enough calcium and vitamin D

What is calcium?

Calcium is a mineral that the body needs to maintain life. Calcium helps to build strong bones and teeth. Vitamin D helps your body take up calcium from the foods you eat.

What happens if I do not have enough calcium?

If you do not have enough calcium you are at risk of getting osteoporosis (os-tee-oh-puh-roe-sis). Osteoporosis is a disease that causes bones to become brittle and weak.

If you have osteoporosis and you have a fall, you can easily get a fracture or broken bone. People with osteoporosis usually get fractures in the wrists, shoulders and hips when they fall.

Also, if you do not have enough calcium this may cause muscle pain, spasms, tingling or numbness in your hands and feet.

To find out if you have osteoporosis, your doctor or nurse practitioner may recommend a test called bone mass density (BMD) to check your bone health.

Where do I get calcium and vitamin D from?

You can get your daily calcium needs from foods such as yogurt, skim milk, cheese, green leafy vegetables such as spinach and kale, and also from fish, like sardines.

Please visit the UHN Patient Education website for more health information:

www.uhnpatienteducation.ca

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Most of your calcium should come from the food you eat everyday. But, you can also get calcium supplements in tablet or pill form.

While you are taking calcium, your doctor or nurse practitioner may recommend that you also take vitamin D. Vitamin D helps your body take up calcium by as much as 30 to 80 percent. Most foods have little vitamin D. Fortified milk is a main food source of vitamin D.

During the summer months, the sun is a main source of vitamin D. So, if you have enough exposure to the sun, then you might not need to take any vitamin D supplements during this time. But, you will need to take vitamin D during the winter months.

How much calcium and vitamin D do I need each day?

Most people need 1000 milligrams (mgs) of elemental calcium and 2000 international units (IU) of vitamin D every day. Your need for calcium and vitamin D may be different. Your doctor or nurse practitioner will recommend the best dose for you.

Please look at the chart below to see how much calcium there is in some recommended foods.

Commonly recommended foods that have calcium

Food	Serving Size	Calcium per serving
Yogurt	8fl. oz	488 milligrams
2% milk	1 cup	314 milligrams
Skim milk	1 cup	306 milligrams
Kale, frozen cooked	1 cup	179 milligrams
Turnip greens, boiled	1 cup	197 milligrams
Broccoli, chopped, cooked	1 cup	61 milligrams
Cauliflower, boiled	1 cup	20 milligrams
Spinach, cooked	1 cup	291 milligrams

To know if you have met your calcium needs each day, keep track of the foods you eat, including the number of servings, and then add the total.

- For example, if you are 20 years old and not taking calcium supplements, you will need to take in 1000 milligrams of calcium each day.

Examples of what you can have are:

- 1 cup 2% milk = 314mgs + 1 cup kale = 179mgs + 1 cup turnip greens = 197mgs + 1 cup cauliflower = 20mgs + 1 cup spinach = 291mgs = Total 1001 mgs calcium.
- You can also double or half your servings as long as they total 1000 milligrams each day.

What happens if I take too much calcium and vitamin D?

Too much calcium may lead to kidney stones, mineral imbalances, or heart arrhythmias (abnormal heart beat). To prevent any of these problems, please only take the amount of calcium that your doctor or nurse practitioner has given you.

Too much vitamin D can lead to too much bone loss because calcium will be pulled from the bones and removed from your kidneys. The only way to take too much vitamin D is by taking too many vitamin D supplements. To prevent any of these problems, please only take the amount of vitamin D that your doctor or nurse practitioner has given you.

Will other medications interact with calcium?

Some medications will have an effect on how calcium is absorbed and removed from your body, for example, thyroid medications. Tell your doctor or nurse practitioner whenever you start or stop a medication.

Who can I talk if I have questions about calcium and vitamin D?

If you have questions about calcium and vitamin D, please talk to your doctor or nurse practitioner.

Useful link

Osteoporosis Canada - Education and Support for the Risk-reduction and Treatment of Osteoporosis: www.osteoporosis.ca