Calcium, Vitamin D and Bone Health

Information for patients and families

Read this brochure to learn about:

• Getting enough calcium and vitamin D
• How to get calcium and vitamin D in your diet
• How much you need
• Who to ask if you have questions

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

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

What happens if I do not have enough calcium?

Not having enough calcium puts you at risk of getting osteoporosis. Osteoporosis is a disease that causes bones to become brittle and weak. If you have osteoporosis and you have a fall, you can easily break a bone. People with osteoporosis usually get fractures in the wrists, shoulders and hips when they fall. Also, if you do not have enough calcium you may have muscle pain, spasms, tingling or numbness in your hands and feet.

To find out if you have osteoporosis, your doctor or nurse practitioner may do a test called bone mineral density (BMD).

Where do I get calcium and vitamin D from?

You can get your daily calcium needs from foods such as yogurt, skim milk, cheese, or green leafy vegetables such as spinach and kale, and also from fish, like sardines. Most of your calcium should come from the food you eat every day. But, you can also get calcium supplements in a 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 get enough sun, then you might not need to take any vitamin D pills. 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 calcium and 2000 international units (IU) of vitamin D every day. Your doctor or nurse practitioner will recommend the best amount for you. This chart shows how much calcium there is in some commonly recommended foods.

<table>
<thead>
<tr>
<th>Food</th>
<th>Serving Size</th>
<th>Calcium per serving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yogurt</td>
<td>8 ounces</td>
<td>488 milligrams (mgs)</td>
</tr>
<tr>
<td>2% milk</td>
<td>1 cup</td>
<td>314 milligrams (mgs)</td>
</tr>
<tr>
<td>Skim milk</td>
<td>1 cup</td>
<td>306 milligrams (mgs)</td>
</tr>
<tr>
<td>Kale, frozen cooked</td>
<td>1 cup</td>
<td>179 milligrams (mgs)</td>
</tr>
<tr>
<td>Turnip greens, boiled</td>
<td>1 cup</td>
<td>197 milligrams (mgs)</td>
</tr>
<tr>
<td>Broccoli, chopped, cooked</td>
<td>1 cup</td>
<td>61 milligrams (mgs)</td>
</tr>
<tr>
<td>Cauliflower, boiled</td>
<td>1 cup</td>
<td>20 milligrams (mgs)</td>
</tr>
<tr>
<td>Spinach, cooked</td>
<td>1 cup</td>
<td>291 milligrams (mgs)</td>
</tr>
</tbody>
</table>

To know if you are getting enough calcium 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 pills, you will need to take 1000 milligrams of calcium a day.

Examples of what you can have are:

1 cup 2% milk (314 mgs)  
1 cup kale (179 mgs)  
1 cup turnip greens (197 mgs)  
1 cup cauliflower (20 mgs)  
1 cup spinach (291 mgs)  
= 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?

Too much calcium may lead to:

- kidney stones
- mineral imbalances
- abnormal heart beat

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 pills.

To prevent any of these problems, take the amount of calcium and 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.

Useful website

Osteoporosis Canada

- Education and support to help you lower your risk of osteoporosis and information about treatment
- Website: [www.osteoporosis.ca](http://www.osteoporosis.ca)