



# Patient Resources

## Calcium

### What is calcium and what does it do?

Calcium is a mineral that is necessary for many reasons. Although most of our calcium is stored in our bones and teeth, calcium carries out additional functions including:

- Building and maintaining strong, healthy bones
- Helping our blood clot
- Allowing our muscles to move
- Allowing nerves to carry messages from our brain to every body part

### How much calcium do I need?

The recommended amount of calcium needed each day depends on your age. The average daily recommended amounts from the Food and Nutrition Board (a national group of experts) for different ages are listed below in milligrams (mg):

Life Stage	Recommended Amount
Birth to 6 months	200 mg
Infants 7-12 months	260 mg
Children 1-3 years	700 mg
Children 4-8 years	1,000 mg
Children 9-13 years	1,300 mg
Teens 14-18 years	1,300 mg
Adults 19-50 years	1,000 mg
Adult men 51-70 years	1,000 mg
Adult women 51-70 years	1,200 mg
Adults 71 years and older	1,200 mg
Pregnant and breastfeeding teens	1,300 mg
Pregnant and breastfeeding adults	1,000 mg

### What kinds of calcium dietary supplements are available?

Calcium can be found in many multivitamin-mineral supplements. Some dietary supplements may only contain calcium, while others contain calcium with other nutrients such as vitamin D. Look at the Supplement Facts label to determine the amount of calcium provided, as it varies by product.

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Adapted from National Institutes of Health: Office of Dietary Supplements  
& the Food and Drug Administration

## What foods provide calcium?

Food is the best source of calcium:

- Milk, yogurt, and cheese are the main food sources of calcium for most people in the U.S.
- Green vegetables such as kale, broccoli and Chinese cabbage have lesser amounts of calcium.
- Fish with soft bones that you eat, such as canned sardines and salmon, have some calcium.
- Some fruit juices, soy and rice beverages, tofu, and breakfast cereals have been fortified, or enhanced, with calcium.
  - If you drink soymilk or other liquids fortified with calcium, be sure to shake the container well as calcium may settle at the bottom.
- Most grains (breads, pastas, and unfortified cereals), while not rich in calcium, can add significant amounts of calcium to the diet because people eat them often or in substantial amounts.

## How do I know if I'm getting enough calcium?

Many individuals do not get the recommended amounts of calcium from the foods they eat, even after supplements are added. Groups of people that may not get enough calcium:

- Post-menopausal women because they experience greater bone loss and do not absorb calcium as well. Bone loss can be slowed down with sufficient calcium intake from food and supplements.
- Women of childbearing age whose menstrual periods stop (amenorrhea) because they exercise heavily, eat too little, or both.
- People with lactose intolerance are unable to digest the natural sugar found in milk and often experience symptoms like bloating, gas and diarrhea when consumed. People with lactose intolerance can usually eat other calcium-rich dairy products that are low in lactose, such as yogurt and cheese.
- Vegans (individuals that do not consume animal products) and vegetarians that do not consume dairy products.

Other factors that may affect individuals getting the recommended amount of calcium include:

- Age; calcium absorption tends to decrease with age.
- Vitamin D; vitamin D increases calcium absorption.

## What happens if I'm not getting enough calcium?

Typically, there are no immediate symptoms of calcium deficiency; overtime low levels of calcium lead to low bone mass and increased risk of osteoporosis and bone fractures. Severe symptoms of calcium deficiency include numbness and tingling in the fingers, convulsions and abnormal heart rhythms that can lead to death if medical attention is not sought.

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### **What are some effects of calcium on health?**

Calcium is being studied for its possible connections to several diseases and medical problems, including: bone health and osteoporosis, cancer (colon or rectum), cardiovascular disease (heart disease and stroke), high blood pressure, preeclampsia, kidney stones and weight loss.

### **Can calcium be harmful?**

Yes. High levels of calcium can may interfere with the body's ability to absorb iron and zinc, increase the risk of kidney stones, and cause constipation.

### **Are there any interactions with calcium that I should know about?**

Like most dietary supplements, calcium may interact or interfere with other medicines or supplements you might be taking. It is very important that you discuss all the medicines and dietary supplements you are taking with your doctor, pharmacist and other health care providers. Examples of interactions include:

- Calcium can reduce the absorption of these drugs when taken together:
  - Bisphosphonates (to treat osteoporosis)
  - Antibiotics of the fluoroquinolone and tetracycline families
  - Levothyroxine (to treat low thyroid activity)
  - Phenytonin (an anticonvulsant)
  - Tiludronate disodium (to treat Paget's disease)
- Diuretics differ in their effects; it is best to speak with a medical professional if you are taking one.
- Antacids containing aluminum or magnesium increase calcium loss in the urine.
- Mineral oil and stimulant laxatives reduce calcium absorption.
- Glucocorticoids (such as prednisone) can cause calcium depletion and eventually osteoporosis when people use them long-term.

### **Where can I found out more about calcium?**

For general information on calcium:

- Office of Dietary Supplements Health Professional Fact Sheet on Calcium
- Calcium and Calcium in Diet, Medline Plus

For more information on food sources of calcium:

- U.S. Department of Agriculture's (USDA's) National Nutrient Database
- Nutrient list for calcium (listed by food or calcium content), USDA

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