

Bone health: Preventing osteoporosis

The amazing bone factory we know as the human skeleton is constantly remodeling itself. Some cells remove old bone and others build new bone.

Bone is living tissue whose main ingredient is calcium, the mineral that gives it strength. During the adolescent years (age 11 to 15), your bones are developing quickly. Nearly half of all bone is formed during these years. Your bones store calcium to keep your skeleton strong later in life.

If your body does not get the calcium it needs for other purposes from the foods you eat, it takes it from your bones. This can put you at risk for osteoporosis (brittle bones) later in life.

What is my risk for osteoporosis?

Many factors can put you at risk for osteoporosis. Some factors you can change, and some you cannot. Some are very important, and some are less so.

Your risk is higher if you:

- are Caucasian or Asian
- are female
- have irregular periods
- get little or no exercise
- don't get much calcium in your diet
- drink lots of carbonated beverages such as soda pop
- drink a lot of alcohol

Your risk is **much** higher if you:

- smoke
- are below normal weight
- have a family history of osteoporosis
- have taken corticosteroids and/or had chemotherapy

How can I prevent osteoporosis?

Good bone health starts in childhood. A calcium-rich diet and exercise are two important tools to prevent osteoporosis. We should all use these tools throughout our lives to promote good bone health.

How much calcium do I need?

Calcium and vitamin D are the key to preventing bone loss and maintaining healthy bones. You need them throughout your life. To absorb calcium, your body needs Vitamin D, an ingredient in many multivitamins. It is also found in some milk and food products fortified with vitamin D. Your body can also make Vitamin D from being in the sun.

Age	Calcium needs
Up to 6 months	210 mg
6 months to 1 year	270 mg
1 to 3 years	500 mg
4 to 8 years	800 mg
9 to 18 years	1300 mg
19 to 50 years	1000 mg
51 years and older	1200 mg
If pregnant or nursing:	
Up to 19 years	1300 mg
19 years and older	1000 mg

(Source: National Academy of Sciences)

How can I get calcium?

The best way to get calcium is from food, especially dairy products. You can also look for calcium-fortified foods and calcium supplements.

Ten calcium-rich foods:

Food	Calcium (mg.)
1 cup plain yogurt	400
½ cup ricotta cheese	337
1 cup low-fat milk	300
½ cup firm tofu	258
1 ounce cheddar cheese	204
1 ounce mozzarella cheese	183
1 ounce American cheese	174
½ cup cooked spinach	122
6 ounces Calcium fortified Orange Juice	200
½ cup cooked broccoli	89

(Source: Bowes and Church's Food Values of Portions Commonly Used)

Also look for calcium-fortified foods such as breakfast cereals, orange juice, and tofu.

Supplements:

If you don't like dairy products or calcium-fortified foods, try calcium supplements. Remember your calcium intake goal and supplement accordingly. If you take more than one a day, space them well apart. Your body can only absorb about 500 to 600 milligrams of calcium at a time.

Many calcium supplements are available over-the-counter. Most contain calcium carbonate, calcium phosphate, or calcium citrate. Examples include:

- Calcium carbonate suspension
- Calcium-chews: Viactive®, Flintstone®, L'il Critter® gummy chews
- Caltrate®
- Os-Cal®
- Posture®
- Tums®, Tums EX®, Tums Ultra®

Others are available by prescription.

Do supplements have side effects?

Side effects that **might** occur (usually with higher doses) are:

- constipation
- irritation of the stomach or intestines

Tell your provider if you have kidney and/or heart disease, because you may be more sensitive to calcium supplements.

What else do I need to know?

Exercise also helps prevent early bone loss. Get 20 to 30 minutes of aerobic exercise 3 to 5 days a week to strengthen and maintain your bones.

Questions?

This sheet is not specific to you, but provides general information. If you have any questions, please ask your doctor or dietician.

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