Building Strong Bones:

Why Calcium Counts

As you grow, you need calcium and other minerals and vitamin D to build strong bones and a healthy body.

Did you know?

- Most young people in the United States don't get enough calcium in their diets.
- Your body's need for calcium is at its highest point between the ages of 9 years and 18 years.
- If you don't get enough calcium when you're young, this can affect the strength of your bones later in life. So you need to take steps now to build strong bones.

What is calcium?

Calcium is a mineral that many parts of your body need. Its main job is to build strong bones and teeth, which contain 99% of your body's calcium. Calcium also helps your muscles move and helps control your blood pressure.

What if I don't get enough calcium?

If you don't get enough calcium, your bones will weaken. This is because your body will take calcium from your bones to meet its needs.

When you are young, your body can store calcium in your bones. As you age, you lose the ability to store calcium in your bones. By the time you reach young adulthood, your bones reach their peak bone density. That means your bones are as dense (or packed) with calcium as they will get—for life. Then your body mainly withdraws calcium from what is stored in your bones.

People who do not have enough calcium stored in their bones can get osteoporosis when they age. Osteoporosis is a disease that can make bones so fragile that they break from the stress of just bending over. People with osteoporosis may not know they have the disease until one or more bones fracture. By this time, it is usually too late to undo the damage to their bones.

Is calcium all I need for strong bones?

Calcium does not work alone. As you grow, your body also needs other minerals, such as phosphorus and magnesium, and vitamins, such as vitamins D and K. Physical activity is important too. Studies show that regularly doing weight-bearing activities such as walking, running, jumping, and playing tennis, basketball, or soccer helps you build strong bones. And if you do these activities outdoors, your body can make vitamin D when your skin is exposed to sunlight. (Remember to put on sunscreen.)

How much calcium do I need?

How much calcium your body needs varies by age. You need the most calcium between the ages of 9 years and 18 years. See "American Academy of Pediatrics Recommended Daily Intake of Calcium" chart.

American Academy of Pediatrics Recommended Daily Intake of Calcium

Age (years)	Calcium Need (mg per day)	Servings of Low-fat Dairy Products to Meet Need
4–8	800	3
9–18	1,300	4
19–50	1,000	3–4

How can I get calcium?

The best way to get the calcium that you need is by eating and drinking foods that naturally contain calcium. If you have a medical condition, talk with your doctor about the foods and beverages that would benefit you the most.

Sources of calcium include

- Low-fat milk, yogurt, and other dairy and soy beverage products.
- Flavored milks, such as chocolate and strawberry, have as much calcium as plain milk. Keep in mind that they may have more calories.
- Dark-green, leafy vegetables such as kale and turnip greens are low in calories and high in calcium. However, spinach is not a good source of calcium.
- Broccoli, tofu, chickpeas, lentils, split peas, and fish with bones, such as canned salmon and canned sardines. You can add these foods to salads.
- Calcium-fortified juices. Remember to limit yourself to 4 to 8 ounces (½–1 cup) of juice a day.
- Calcium-fortified cereals.

At the end of this publication are tables that list the specific amounts of calcium in foods.

How do I check calcium on food labels?

The US Food and Drug Administration (FDA) requires that calcium be listed on Nutrition Facts labels. You may see amounts of calcium listed in the old or new format. The old format lists calcium as a percentage (Percent Daily Value). The new format lists calcium as a percentage and includes the milligrams (mg) per serving. For information about changes to the Nutrition Facts label, visit the FDA Web site at www.fda.gov/Food/LabelingNutrition/default.htm.

In general, a food that lists a daily value of 20% or more for calcium is high in calcium. Any food that contains less than 5% of the daily value is low in calcium. The calcium information on a Nutrition Facts label should be used only as a general guide about the amount of calcium in a food or beverage. It is based on a 2,000-calorie daily diet for an adult.

Nutrition Facts

Serving Size 2/3 cup (55g)
Servings Per Container About 8

Amount Per Serving

Calories 230	Calories from Fat 72
	% Daily Value*
Total Fat 8g	**12%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 37g	**12%**
Dietary Fiber 4g	**16%**
Sugars 1g	
Protein 3g	
Vitamin A	10%
Vitamin C	8%
Calcium	20%
Iron	45%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Nutrition Facts

8 servings per container
Serving size **2/3 cup (55g)**

Amount per serving
Calories **230**

	% Daily Value*
Total Fat 8g	**10%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 37g	**13%**
Dietary Fiber 4g	**14%**
Total Sugars 12g	
Includes 10g Added Sugars	**20%**
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Sample of an old Nutrition Facts label (top) and sample of a new Nutrition Facts label (bottom) created by the US Food and Drug Administration for illustrative purposes only.

Adapted from Nutrition Facts label programs and materials. US Food and Drug Administration Web site. https://www.fda.gov/food/labelingnutrition/ucm20026097.htm. Updated April 2, 2018. Accessed June 11, 2018.

What is lactose intolerance?

Some young people have significant lactose intolerance, which means they have trouble digesting lactose (the sugar in milk). In most people, lactose intolerance is of a mild form. These people can digest dairy products in small amounts with a meal. Cheeses and yogurts in which the lactose is partially broken down can provide good sources of calcium for them. There are preparations of the enzyme lactase that make lactose easier to digest. Also available is milk with reduced lactose. Nondairy beverages including soy milk that are rich in calcium, as well as calcium-fortified foods, can also be good choices for people who have lactose intolerance.

In some cases, your doctor may recommend a calcium supplement.

Do I need to take calcium and vitamin D supplements?

Certain medical conditions, diets, or lifestyle choices can make it hard for you to get enough calcium and vitamin D by eating the right foods. In some cases, your doctor may recommend a supplement, such as a daily dose of a calcium-containing antacid or another type of calcium supplement. You should not take more than a total of 1,000 mg of calcium supplements a day. Usually a supplement with 400 IU per day of vitamin D is enough. Check with your doctor to see what is best for you.

What decreases my calcium intake?

Here are some things that can hurt your bone health.

- **Drinking a lot of soda (pop or soft drinks)**—Studies show that this may make you more prone to bone fractures. This may be because sodas often take the place of milk or other calcium-rich drinks.
- **Certain diets**—Some diets may not provide enough calcium, such as a vegetarian diet that excludes dairy products. Before you start any diet, check with your doctor to make sure it includes enough calcium.
- **Alcohol and tobacco**—Alcohol and tobacco use can cause you to lose calcium from your bones.
- **Certain medicines and diseases**—Some medicines and kidney and intestinal diseases can cause you to lose calcium from your bones. Ask your doctor if any of the medicines you are taking affect your bones and what you can do to protect them.

Which foods have calcium?

The following table shows the amount of calcium in a variety of foods. The information is from the US Department of Agriculture. Calcium amounts may vary. Check nutrition labels on products for exact amounts.

Food Group	Serving Size	Calcium (mg)
Milk Group		
Milk,[a] regular or low-fat	1 cup	245–265
Yogurt, nonfat or fruit	1 cup	260
Cheese	1-ounce slice	200
Cheese, pasteurized	3/4-ounce slice	145
Ice cream	1/2 cup	90
Ice cream, soft serve	1/2 cup	115
Frozen yogurt	1/2 cup	105
Pudding, instant	1/2 cup	150
Soy milk,[b] calcium-fortified	1 cup	200–500
Protein Group		
Almonds, chopped	1 ounce	65
White beans, cooked or boiled	1 cup	160
Salmon, canned with bones	3 ounces	205
Tofu, firm or calcium-fortified	1/2 cup	205
Vegetables or Fruits		
Broccoli, cooked	1 cup	60
Collards, cooked	1 cup	265
Tomatoes, canned or stewed	1 cup	85
Orange juice, calcium-fortified	1 cup	300
Orange	1 medium	50
Grains		
English muffin, plain or enriched	1	95
Pancakes (made with milk)	1	80
Corn tortilla	1	45
Selected breakfast cereals, calcium-fortified	3/4–1 cup	100
Instant oatmeal (made with water), calcium-fortified	1/2 cup	65

[a] Low-fat milk has as much or more calcium than whole milk.

[b] If you drink nondairy beverages that contain calcium, keep in mind that some beverages labeled with the word *milk,* such as almond milk, are often low in calcium.

From Your Doctor

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The American Academy of Pediatrics (AAP) is an organization of 67,000 primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists dedicated to the health, safety, and well-being of infants, children, adolescents, and young adults.