



High Calcium Diet: Essential Tips for Strong Bones

Maintaining strong bones and overall health requires a balanced diet; calcium is crucial. Calcium is essential for building and maintaining bones and teeth and ensuring muscles, nerves, and heart function properly. Many individuals find calcium supplements constipating and can best fill their calcium needs through their diet.

Why Calcium Is Important

Calcium is the most abundant mineral in the body. A human adult body contains about 2.2 pounds of calcium. About 99% is stored in the bones and teeth, providing structural support. The remaining 1% circulates in the blood, vital for muscle contractions, nerve signaling, and hormone release. When calcium levels in the blood are low, the body pulls calcium from the bones, which can lead to weakened bones over time.



Recommended Daily Calcium Intake

The amount of calcium you need depends on your age, gender, and life stage. The National Institutes of Health (NIH) provides the following guidelines for daily calcium intake:

- Children (1-3 years): 700 mg
- Children (4-8 years): 1,000 mg
- Teens (9-18 years): 1,300 mg
- Adults (19-50 years): 1,000 mg
- Women (51 years and older): 1,200 mg
- Men (51-70 years): 1,000 mg
- Men (71 years and older): 1,200 mg

Pregnant and breastfeeding women should also ensure they meet their daily calcium needs to support their health and their baby's development.

Best Sources of Calcium

Calcium is found in various foods, and incorporating these into your diet can help you meet your daily calcium needs. Here are some of the best sources of calcium

Dairy Products

Dairy products are among the most well-known sources of calcium. They include:

- Milk: A single cup of milk provides about 300 mg of calcium.
- Cheese: Different types of cheese offer varying amounts of calcium. For instance, an ounce of cheddar cheese provides about 200 mg of calcium.

- Yogurt: A cup of yogurt can provide up to 400 mg of calcium, depending on the type.

Non-Dairy Sources

For those who are lactose intolerant or prefer non-dairy options, several other foods are rich in calcium:

- Leafy Greens: Vegetables like kale, bok choy, and collard greens are excellent sources of calcium.
- Fortified Foods: Many foods, including plant-based milk (almond, soy, rice), orange juice, and cereals, are fortified with calcium.
- Tofu: Tofu made with calcium sulfate is another excellent source, providing up to 860 mg of calcium per half-cup.
- Nuts and Seeds: Almonds, chia seeds, and sesame seeds offer a healthy dose of calcium.
- Fish: Sardines and canned salmon with bones are rich in calcium.

Calcium Absorption and Vitamin D

For calcium to be absorbed effectively, the body needs sufficient vitamin D. Vitamin D helps the intestines absorb calcium from food. Without enough vitamin D, your body cannot form enough of the hormone calcitriol, leading to insufficient calcium absorption from the diet. This forces the body to take calcium from the skeleton, weakening the bones. You can obtain vitamin D through sun exposure, food, and supplements. Foods rich in vitamin D include fatty fish like salmon and mackerel, egg yolks, and fortified foods.

Tips for Increasing Calcium Intake

Incorporating more calcium into your diet doesn't have to be complicated. Here are some practical tips to help you boost your calcium intake:

- Start Your Day with Calcium: Choose calcium-fortified cereals or oatmeal for breakfast, and add milk or yogurt to your morning routine.
- Snack Smart: Snack on calcium-rich foods like cheese, almonds, or yogurt.
- Include a Side of Greens: Add leafy greens, such as spinach or kale, to your meals, like salads and smoothies, or as a side dish.
- Choose Fortified Products: Opt for calcium-fortified foods and beverages, especially if you avoid dairy.

Potential Risks of Too Little or Too Much Calcium

Maintaining balanced calcium levels is crucial, as both deficiencies and excesses can lead to health issues.

Calcium Deficiency

A calcium deficiency, known as hypocalcemia, can lead to:

- Osteoporosis: A condition where bones become weak and brittle, increasing the risk of fractures.

- **Dental Problems:** Lack of calcium can lead to weak teeth and gums, increasing the risk of cavities and periodontal disease.
- **Muscle Cramps:** Low calcium levels can cause muscle spasms and cramps.
- **Heart Issues:** Severe calcium deficiency can affect heart function, leading to arrhythmias.

Excess Calcium

On the other hand, excessive calcium intake, usually from supplements rather than food, can result in:

- **Kidney Stones:** High calcium levels can lead to the formation of kidney stones.
- **Hypercalcemia:** This condition, characterized by high calcium levels in the blood, can cause nausea, vomiting, and confusion.
- **Impaired Absorption of Other Minerals:** Excess calcium can interfere with iron, zinc, and magnesium absorption.

Calcium Myths Debunked

There are several myths surrounding calcium that can lead to confusion. Let's clear up some of the most common misconceptions:

- **Myth:** "Only dairy products are good sources of calcium."
 - **Truth:** While dairy is an excellent source of calcium, many non-dairy foods, such as leafy greens, tofu, and fortified products, are also rich in calcium.
- **Myth:** "Calcium supplements are always necessary."
 - **Truth:** Most people can meet their calcium needs through a balanced diet. Supplements should be considered if dietary intake is insufficient, but it's best to consult a healthcare provider first.

Center for Digestive Health & Nutrition

725 Cherrington Parkway • Moon Township, PA 15108
412.262.1000 • www.gihealth.com

HIGH CALCIUM FOOD LIST

| DAIRY | SERVING SIZE | CALCIUM (MG) |
|-----------------|--------------|--------------|
| Parmesan | 1 slice | 314 |
| Yogurt, low fat | 1 cup | 311 |
| Milk | 1 cup | 305 |
| Kefir | 1 cup | 300 |
| Condensed Milk | 100gr | 284 |
| Buttermilk | 1 cup | 284 |
| Greek yogurt | 1 cup | 230 |
| Ricotta | 100gr | 207 |
| Cheddar cheese | 1 slice | 201 |
| Yoghurt, nonfat | 1 cup | 199 |
| Feta cheese | 1 slice | 187 |
| Custard | 100gr | 139 |
| Ice Cream | 100gr | 128 |
| Sour Cream | 100gr | 110 |
| Cottage Cheese | 100gr | 83 |
| Whey | 100gr | 47 |
| Butter | 100gr | 24 |

| NON DAIRY MILK | SERVING SIZE | CALCIUM (MG) |
|----------------|--------------|--------------|
| Pea milk | 100ml | 180 |
| Hazelnut Milk | 100ml | 125 |
| Almond Milk | 100ml | 120 |
| Oat Milk | 100ml | 120 |
| Cashew Milk. | 100ml | 120 |
| Coconut Milk | 100ml | 120 |
| Macadamia Milk | 100ml | 120 |
| Soy Milk | 100ml | 120 |
| Rice Milk | 100ml | 118 |

| VEGETABLES | SERVING SIZE | CALCIUM (MG) |
|----------------|--------------|--------------|
| Kale | 100 g | 250 |
| Turnip greens | 1 cup | 197 |
| Nopales | 100 g | 164 |
| Spinach | 100 g | 99 |
| Baby bok choy | 100 g | 80 |
| Edamame | 100 g | 63 |
| Broccoli | 100 g | 47 |
| Snow peas | 100 g | 43 |
| Cabbage | 100 g | 40 |
| Sweet potatoes | 100 g | 30 |

| SEEDS AND NUTS | SERVING SIZE | CALCIUM (MG) |
|----------------|--------------|--------------|
| Almond | 100gr | 264 |
| Chia seed | 2 tbsp | 178 |
| Brazil Nuts | 100gr | 160 |
| Kidney bean | 100gr | 143 |
| Hazelnuts | 100gr | 114 |
| Chickpea | 100gr | 105 |
| Pistachio | 100gr | 105 |
| Walnuts | 100gr | 98 |
| Sesame seeds | 1 tbsp | 87 |
| Flaxseed | 2 tbsp | 50 |
| Beans, black | 100gr | 27 |
| Lentil | 100gr | 19 |

| FRUITS | SERVING SIZE | CALCIUM (MG) |
|---------------|--------------|--------------|
| Dried figs | 100gr | 162 |
| Rhubarb | 100gr | 86 |
| Blackcurrants | 100gr | 57 |
| Prickly pears | 100gr | 56 |
| Grapefruits | 1 cup | 50 |
| Papaya | 1 cup | 46 |
| Prune | 100gr | 43 |
| Oranges | 100gr | 40 |
| Mulberries | 100gr | 39 |
| Kiwi | 100gr | 34 |
| Lemon | 100gr | 26 |
| Strawberries | 1 cup | 24 |
| Apricot | 100gr | 13 |
| Apples | 1 piece | 10 |

| SEAFOOD | SERVING SIZE | CALCIUM (MG) |
|----------|--------------|--------------|
| Sardines | 100 g | 382 |
| Anchovy | 100 g | 232 |
| Octopus | 100 g | 106 |
| Clams | 100 g | 89 |
| Shrimp | 100 g | 69 |
| Crab | 100 g | 91 |
| Lobster | 100 g | 63 |
| Trout | 100 g | 55 |
| Snapper | 100 g | 40 |
| Squid | 100 g | 32 |