

Calcium and Vitamin D

Why is calcium important to my diet?

Eating a balanced diet with enough calcium and vitamin D will help prevent osteoporosis (weakening of the bones).

How much calcium do I need?

This depends on your age, gender, drugs, and bone density. For most people, a daily intake between 1000 and 1500 mg of calcium is safe and effective.

What foods are rich in calcium?

Dairy products are good sources of calcium. An 8-ounce glass of milk contains about 300 mg of calcium. Two slices of a firm cheese, such as American, Swiss, cheddar, or mozzarella have about as much calcium as a glass of milk. Soft cheeses like cottage cheese have one half to one third of this amount of calcium per serving. Other calcium-rich foods are yogurt, salmon, tofu, almonds, and beans. Orange juice and soy milk come in calcium-fortified forms. The average American gets about 200 mg of calcium per day from non-dairy foods.

Milk Products	Calcium (mg)	Vegetables / Fruit	Calcium (mg)
Plain yogurt, 2%, 1 cup	415	Rhubarb, 1 cup	348
Nonfat dry milk, 1/4 cup	377	Collard or mustard greens, 1/2 cup	179
Skim milk, 1 cup	302	Kale, 1 cup	179
Buttermilk, 1 cup	285	White beans, 1 cup	170
Mozzarella cheese, part skim, 1 oz	207	Beet greens, 1 cup	165

Ricotta cheese, part skim, 1/4 cup	168	Broccoli, 1/2 cup	89
Cottage cheese, 2%, 1 cup	155	Okra, 1/2 cup	88
Pudding (with skim milk), 1/2 cup	150	Rutabagas, 1 cup	72
Parmesan cheese, 1 tbsp	69	Green beans, 1 cup	58
		Lima beans, 1 cup	55
Bean/Grain Products		Orange, 1 medium	52
Waffle/pancake (milk, egg added)	179	Cabbage, 1 cup	50
Tofu, 3 oz	150		
English muffin	96	Seafood	
Soybeans, 1/2 cup cooked	88	Salmon, 3-4 oz	225
Corn muffin	66	Oyster, 3 1/2 oz	100
Pita bread, 1 pocket	49	Clams, 1/2 cup	74
Fortified whole wheat cereal	48	Shrimp, 3 1/2 oz	50
Corn tortilla, one 6 inch	42	Haddock, 3 1/2 oz	42
Whole wheat dinner roll	34		
Brown rice, 1 cup	33	Nuts	
		Almonds, 2 oz	100

What do I need to know about calcium supplements?

If you are not able to get enough daily calcium from foods, supplements are another way to get calcium. Here are a few tips for choosing a supplement:

- Read the label. A supplement 'serving' may contain 400 mg of calcium, but that 'serving' may be two tablets.
- Calcium supplements are absorbed better if you take 500 mg of calcium or less at a time. You may need to split your dose over the course of the day.
- Chewable tablets are absorbed better than pills that are swallowed whole.
- If you use a non-chewable pill, you can test to see if it can dissolve well. Place the pill in a glass of warm water for 30 minutes, and then stir. If the pill dissolves in the water, it should also dissolve in your stomach.
- Some people taking calcium supplements are concerned about lead content. Lead-free calcium supplements include Tums, Walgreen's, Equate, Nature Made, Sundown (all calcium carbonate), and Citracal (calcium citrate). Two well-known calcium supplements that contain lead are Caltrate and OsCal.

Should I be taking calcium carbonate or calcium citrate?

- In general, calcium carbonate costs less, and is just as effective.
- Calcium carbonate is absorbed better when taken with meals. Calcium citrate can be taken at any time.
- Calcium citrate (Citracal) may be a better choice if constipation is an issue.
- Most experts suggest that patients taking drugs that block stomach acid take calcium citrate rather than calcium carbonate. Stomach acid blocker drugs include Pepcid, Prilosec, Protonix, Zantac, and others.

Vitamin D

How much vitamin D do I need?

If you have been told to take a vitamin D supplement, a dose of 800-1000 International Units (IU) per day is safe and effective. Most older patients should

take 1000 IU per day. Most multivitamins contain 400 IU/day. Vitamin D supplements are sold at drug stores, food stores, and health food stores. Many calcium supplements also contain vitamin D in the right amount.

Can I get my vitamin D requirements from foods?

Very few foods are naturally rich in vitamin D. Milk is fortified with 125 IU of vitamin D per 8-ounce glass. There is vitamin D in eggs, liver, and fish such as salmon, sardines, and herring. Vitamin D is also made in the skin after direct exposure to sunlight. Getting sunlight on your hands, face, and arms for 10 to 30 minutes, 2 to 3 times per week can help produce vitamin D during the summer months.

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Patient Education Handout Associated with UMHS Clinical Care Guideline

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