



# Bones, Muscles & Joints

## CALCIUM: WE ALL NEED IT

**D**oes your body need more calcium? Can you get enough in your daily diet, or do you need a supplement? Do you think the only people who need calcium are children and older women with osteoporosis?

Calcium is a mineral we all need to regulate heart rhythm, help muscles contract, and keep bones strong. It is found throughout the body and stored in your bones. The role of calcium is so critical to our body's functioning that if we do not get enough of it through our diet or supplements, it is taken from our bones to maintain levels in the blood. This happens throughout our lives, from childhood to old age.

Calcium requirements vary by age group. Typically children, young adults and women need 1000 mg/day - more for women who are pregnant, breastfeeding or post-menopausal without estrogen replacement. Men generally require 1000 mg/day. Your rheumatologist can further assess your calcium status through urine or blood tests.

**Dietary sources of calcium:** Many foods contain calcium. If you are already eating three to four servings of calcium rich foods a day, you may not need a supplement.

DIETARY SOURCES OF CALCIUM	MILLIGRAMS OF CALCIUM
Milk, 1 cup: Skim	302
1%	300
2%	297
Whole	219
Yogurt, 1 cup: Low-fat	415
Low-fat with fruit	314
Cottage Cheese, 1/2 cup creamed	116
Cheese, 1 oz: Cheddar	204
Swiss	272
Parmesan, grated	390
American	174
Tofu, 4 ounces	145
Sardines, with bones, 3 ounces	372
Salmon, with bones, 3 ounces	166
Ice cream, vanilla, 1/2 cup	137
Broccoli, 1/2 cup	88

If we treat you, we help you for a day.  
If we teach you, we help you for a lifetime.

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## WHAT KIND OF CALCIUM SUPPLEMENT SHOULD I TAKE?

Have you looked at the calcium selection in your local pharmacy lately? There are many to choose from - calcium carbonate, calcium lactate, calcium gluconate, calcium citrate, and calcium citrate malate. It is important that you read labels carefully to be sure that you are getting your needed calcium supply in elemental calcium. If the label indicates elemental calcium, you need no further calculation. If you are unsure, bring your label to the office with you and ask your rheumatologist.

Calcium carbonate is available in Tums, Caltrate, and Oscal. However, for some people calcium carbonate causes constipation or gas. Calcium citrate (Citracal) may be more easily tolerated. A liquid alternative is calcium citrate malate found in calcium fortified orange and grapefruit juices. There's also a chewable calcium.

## ABSORBING CALCIUM: USE IT OR LOSE IT

Eating enough calcium rich foods is just half the job. Your body needs to be able to absorb it or it will simply be excreted.

Vitamin D is essential for absorbing calcium and remodeling/repairing bones. It comes from the sun. Just 20 minutes of sun exposure during midday can provide the daily requirement of Vitamin D. If you are unable to be in the sun or if you routinely use sunscreen, be sure to supplement with 400-800 units of Vitamin D. Milk usually has 400 units added per quart. Multi-vitamins also usually contain Vitamin D, as do some calcium supplements. Check the labels carefully. Excessive amounts of this vitamin are not helpful.

The body absorbs calcium better in the presence of lactose, found in milk and other dairy products. Acid is also needed in calcium absorption. Stomach acid decreases as we get older so taking your calcium with foods rich in Vitamin C (e.g., citrus fruit and juices) can help its absorption. Regular exercise also helps your body absorb calcium.

Your body will absorb calcium better if you take it in divided doses throughout the day. Taking one dose with the evening meal might give you added benefit because of the bone-building process that occurs at night during sleep.

## IN A NUTSHELL:

1

BE SURE YOU ARE GETTING ADEQUATE CALCIUM AND VITAMIN D FROM YOUR DAILY DIET OR SUPPLEMENTS.

2

PROMOTE ABSORPTION OF CALCIUM BY TAKING IT WITH DAIRY FOODS AND FOODS RICH IN VITAMIN C.

3

HELP YOUR BODY ABSORB CALCIUM WITH REGULAR EXERCISE.

4

IF YOU HAVE QUESTIONS ABOUT YOUR CALCIUM NEEDS, ASK YOUR RHEUMATOLOGIST.