

UniversityHealthServices

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Calcium

*Getting a college degree and eating a calcium-rich diet have one thing in common: **They are an investment in your future.** You can stock up on calcium now for good bone health later.*

Bone Loss

Bone is living tissue that is continually “turning over.” New bone is added and old bone is broken down. Bones stop growing at around age 18, but can become more dense with a calcium-rich diet until age 35. After age 35, there is a slow loss of bone influenced by genetics, lifestyle, and hormonal factors.

This age-related bone loss is accelerated by a calcium-poor diet which leads to “porous bones” or osteoporosis. Osteoporosis affects 20 million older Americans, mostly women. While men are not free from this disease, they have greater bone mass and a slower rate of bone loss than women.

Preventing Bone Loss

The key to preventing osteoporosis is to increase your bone mass now (the only time in your life to “stock-pile” calcium in your bones) and to decrease the rate of bone loss later. A calcium intake of 1000 milligrams (mg)* every day is necessary to increase your bone mass now and to decrease the rate of bone loss.

* National Institutes of Health (NIH) recommend 1000mg/day for men and premenopausal women; 1500mg/day for postmenopausal women.

The Big Three: Calcium, Vitamin D, and Exercise

Eat plenty of calcium-rich foods. These include low-fat milk, yogurt, and cheese. Dark-green leafy vegetables, canned fish with bones, tofu, and fortified orange juice are also good sources of calcium. Get enough vitamin D. Your body needs vitamin D in order to absorb calcium. Adults generally get enough vitamin D from drinking fortified milk and from being outdoors. Sunlight triggers the skin to make vitamin D. Work your bones and look at your lifestyle. Studies show that regular exercise can help build and maintain healthy bones at all ages. To build your bones, you need to engage in weight-bearing exercises. These include weight training, brisk walking, tennis, aerobics, and dancing. Try to exercise for at least 30 minutes a day, three to four times a week.

A Fourth Factor: Lifestyle

Smoking cigarettes and drinking too much alcohol contribute to bone loss. If you smoke, this is another good reason to quit. Women who drink one alcoholic beverage (or less a day) probably don’t need to worry, but if you drink more than that, you should cut down.

Doing Dairy

Getting 1000 mg of calcium every day can be easy if you like dairy products. But whole milk, cheeses, and ice cream are high in fat and calories. To benefit your heart and weight as well as your bones, use nonfat or low fat dairy products as staples in your diet. Limit cheeses and use frozen yogurt or ice milk for an occasional dessert.

If you don't like milk, disguise it! Heat a cup of nonfat milk and add a teaspoon of instant coffee for an instant 86 calorie cafe au lait. For a few more calories, chocolate milk and hot chocolate are tasty beverages. If you still don't like milk or cannot digest milk, there are other foods that supply this nutrient (see the list of calcium-containing foods). But some of these foods contain substances that bind with some of the calcium, so it is not fully absorbed. To get the same amount of absorbable calcium from one cup of milk, you would need to consume:

- 2½ cups of cooked broccoli
- 7 cups of red beans
- 8 cups of spinach

Calcium Supplements

Although it is best to obtain calcium from food sources, calcium supplements offer added protection. Today, several new chewable supplements are on the market. Each bite-size piece delivers 500 mg of elemental calcium, in the form of calcium carbonate, which is nature's most concentrated source of calcium. These products are further enhanced with the addition of Vitamin D to aid in calcium absorption and assist with normal bone formation. However, don't take more than 500 mg at a time. Chew supplements at meal times, as this increases the likelihood of absorption. Most scientists advise that 2500 mg daily of a calcium supplement is the safe upper limit.

If you are taking thyroid hormones, the antibiotic tetracycline, corticosteroids, or iron pills, talk with your health care provider or pharmacist. Calcium can interact with these and other drugs.

Guide to Calcium-Rich Food

	Serving size	Calcium (mg)
MILK GROUP		
Plain nonfat yogurt	1 cup	452
Plain low fat yogurt	1 cup	415
Swiss cheese	1-1/2 oz	408
Chocolate milk shake	10 oz	374
American process cheese	2 oz	348
Fruit-flavored low fat yogurt	1 cup	345
Mozzarella cheese (part skim)	1-1/2 oz	311
Cheddar cheese	1-1/2 oz	306
Fat free milk	1 cup	302
1% Low fat milk	1 cup	300
2% Reduced fat milk	1 cup	297
Whole milk	1 cup	291
Chocolate milk	1 cup	280-287
Soft-serve ice cream	1/2 cup	118
Ice cream, 11% fat	1/2 cup	88
2% reduced fat cottage cheese	1/2 cup	78
MILK, POULTRY, FISH, AND ALTERNATIVE GROUP		
Sardines with bones	3 oz	371
Rice milk (calcium fortified)	1 cup	300
Soy milk (calcium fortified)	1 cup	300
Tofu (processed with calcium sulfate)	1/2 cup	300
Sesame seeds	1 oz	280
Canned salmon with bones	3 oz	167
Green soybeans, cooked	1/2 cup	130
Almonds	1/3 cup	120
Soy nuts	1/4 cup	115
White beans, cooked	1/2 cup	100
Great northern beans, cooked	1/2 cup	60
VEGETABLE GROUP		
Frozen cooked kale	1/2 cup	90
Frozen cooked okra	1/2 cup	88
Fresh cooked beet greens	1/2 cup	82
Bok choy, cooked	1 cup	80
Frozen cooked broccoli	1/2 cup	47
FRUIT GROUP		
Orange	1	52
Orange juice (calcium-fortified)	1 cup	350

GRAIN GROUP

Enriched English muffin	1	96
Pancakes, made with milk (4" diameter)2	72	
Corn tortilla (6" diameter)	1	42
Packet instant oatmeal (non-fortified)	1	19
Ready-to-eat cereal (check labels for calcium content)	1 oz labels)	(check labels)

COMBINATION FOODS

Baked potato with cheese	1	350
Taco salad (small)	1	280
Cheese pizza, slice	1	220
Taco (small, 6 oz.)	1	109

COFFEE BEVERAGES

Caffe latte, 12 oz	1	412
Caffe mocha, 12 oz	1	337
Cappuccino, 12 oz	1	262

Calcium-Fortified Foods. A wide variety of calcium-fortified foods is available, including calcium-fortified juices, fruit drinks, breads, cereals, potato chips, and carbonated beverages. In many cases, these foods are fortified with a level of calcium comparable to that in an 8-ounce serving of milk.

Test Results and Advice Nurse

Please call the nurse for test results and advice: 863-4463

Appointments

Appointments can be made in person or by phone. If you are unable to keep your appointment, please call and cancel. Otherwise you will be charged for the visit.

To schedule or cancel appointments, call: 863-0774

For more information about health care issues, visit the UHS Web site at www.sa.psu.edu/uhs

This publication is available in alternative media on request.

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