

Strong Bones and Healthy Nutrition

PATIENT/FAMILY INFORMATION SHEET

How Do I Maintain Strong Bones?

Eating foods rich in calcium and vitamin D are both needed to maintain strong bones.

What is Calcium?

Calcium is an important mineral that helps keep bones strong. Your body needs a certain amount of calcium every day. If you do not eat enough calcium, your bones may become weak and break more easily.

How Much Calcium Do I Need?

The amount of calcium you need every day depends upon your age and stage of life.

Group	Amount (mg/day)	Group	Amount (mg/day)
<i>Children</i>		<i>Adults</i>	
0-6 months	500	19-50 years	1000
7-12 months	500	51+ years	1200
		<i>Pregnancy and Lactation</i>	
1-3 years	500	under 18 years	1300
4-8 years	800	over 19 years	1000
9-18 years	1300		

*Source: National Academy of Sciences (NAS), National Osteoporosis Foundation,
www.nof.org/prevention/calcium.htm

What Foods are Good Sources of Calcium?

Calcium is found in many foods. Dairy products like milk, cheese, or yogurt are excellent sources but some vegetables, nuts, and fish are good sources. A Registered Dietitian (R.D.) can help you select foods to meet your calcium needs.

Calcium-rich foods are listed in the table below:

Food	Serving	Calcium (mg)
<i>Dairy Foods</i>		
Milk (whole, low fat, skim)	8 oz	300
Cottage cheese	1 cup	155
Mozzarella cheese (part skim)	1 oz	200
Yogurt	8 oz	300
Cheddar cheese	1 oz	204
American cheese	1 oz	211
Ricotta cheese	1/2 cup	337
<i>Non Dairy Foods</i>		
Orange juice (calcium fortified)	8 oz	300
Soy milk (calcium fortified)	8 oz	300
Almonds	1/2 cup	184
Collard greens (cooked)	1 cup	220
Sardines (canned, with bones)	3 oz	382
Black beans (cooked)	1 cup	120

Source: National Institutes for Health

How Can I Increase Calcium in My Diet?

- Choose at least 2-3 servings of low fat dairy foods such as milk, cheese, or yogurt each day
- Limit sodium and caffeine intake because excessive amounts can increase calcium excretion
- Limit foods high in oxalic acid such as spinach, rhubarb, chard, beet greens, and sweet potatoes because they can block calcium absorption
- Consume calcium-rich foods throughout the day instead of all at once because your body can best handle about 500 mg at a time

What is Vitamin D?

Vitamin D is a hormone that helps the intestinal tract to absorb calcium and helps to maintain normal blood levels of calcium. By doing this, vitamin D helps form and maintain strong bones.

How Much Vitamin D Do I Need?

The amount of Vitamin D you need every day depends on your age and stage of life.

Group	Amount (IU/day)
Children	
0-18 years	200
Adults	
19-50 years	400 - 800
51+ years	800 - 1000
Pregnancy and Lactation	
under 18 years	200
over 19 years	200

National Institute for Health, <http://ods.od.nih.gov>
& National Osteoporosis Foundation, www.NOI.org

What Foods Are Good Sources of Vitamin D?

Vitamin D can be found in foods such as fatty fishes, fortified dairy products, and fortified cereals. The table below lists some vitamin D rich foods.

Food	Serving	Vitamin D (IU)
Dairy Foods		
Milk (whole, low fat, skim); fortified	8 oz	98
Swiss Cheese	1 oz	12
Mozzarella cheese (part skim)	1 oz	200
Non Dairy Foods		
Cod liver oil	1 Tbsp	1350
Salmon (cooked)	3 1/2 oz	360
Mackerel (cooked)	3 1/2 oz	90
Sardines (canned)	1 3/4 oz	70
Egg Yolk	1	20
Beef Liver (cooked)	3 1/2 oz	15

Source: National Institutes for Health

Adequate intake of calcium and vitamin D throughout a lifetime will promote strong bones. Some individuals may not be able to meet their calcium and vitamin D needs through foods. When this is the case, supplements of calcium with vitamin D can supply the daily need for these nutrients. Discuss with your doctor the supplement type and dose that you should take.

References:

Institute of Medicine. *Dietary reference Intakes for Vitamins and Minerals*. Washington, DC: National Academy Press; 2002

Bowe's and Church's Food Values of Portions Commonly Used. Lippincott, Williams, and Wilkins; 1998

National Institutes of Health, Office of Dietary Supplements <http://ods.od.nih.gov/>

National Osteoporosis Foundation, www.nof.org

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