

## VITAMIN D AND CALCIUM - THE RECIPE FOR HEALTHY BONES

### VITAMIN D

Vitamin D is essential for bone health. AAP recommends that exclusively and partially **breastfed infants** receive supplements of 400 IU/day of vitamin D shortly after birth and continue to receive these supplements until they are weaned and consume  $\geq 1,000$  mL/day (approx 32 oz = 1 qt.) of vitamin D-fortified formula or whole milk because breast milk is a very poor source of Vitamin D. (All formulas sold in the United States provide  $\geq 400$  IU vitamin D<sub>3</sub> per liter, and the majority of vitamin D-only and multivitamin liquid supplements provide 400 IU per serving.) Similarly, all **non-breastfed infants** ingesting  $< 1,000$  mL/day (approx 32 oz = 1 qt.) of vitamin D-fortified formula or milk should receive a vitamin D supplement of 400 IU/day.

AAP also recommends that older **children and adolescents** who do not obtain 400 IU/day through vitamin D-fortified milk and foods should take a 400 IU vitamin D supplement daily.

#### Selected Food Sources of Vitamin D

Food	IUs per serving*
Cod liver oil, 1 tablespoon	1,360
Salmon (sockeye), cooked, 3 ounces	794
Mushrooms that have been exposed to ultraviolet light to increase vitamin D, 3 ounces	400
Mackerel, cooked, 3 ounces	388
Tuna fish, canned in water, drained, 3 ounces	154
Milk, nonfat, low fat, whole, vitamin D-fortified, 1 cup	115-124
Orange juice fortified with vitamin D, 1 cup (check product labels, as amount of added vitamin D varies)	100
Margarine, fortified, 1 tablespoon	60
Sardines, canned in oil, drained, 2 sardines	46
Liver, beef, cooked, 3.5 ounces	46
Cereal, fortified with Vit D, 0.75-1 cup	40
Egg, 1 whole (vitamin D is found in yolk)	25
Cheese, Swiss, 1 ounce	6

\*IUs = International Units.

### CALCIUM

Calcium is a mineral needed by the body for healthy bones, teeth, and proper function of the heart, muscles, and nerves. The body cannot produce calcium; therefore, it must be absorbed through food. Good sources of calcium include

- Dairy products—*low fat or nonfat milk, cheese, and yogurt*
- Dark green leafy vegetables—*bok choy and broccoli*
- Calcium fortified foods—*orange juice, cereal, bread, soy beverages, and tofu products*
- Nuts, especially Almonds

#### Calcium Requirements

Age	Daily Calcium recommendation (mg.)
0-6 months	210
6-12 months	270
1-3years	500
4-8years	800
9-18	1300
19-50 years	1000

#### Selected Food Sources of Calcium

Food	Calcium Content (mg.)
Fortified oatmeal, 1 pack	350
Sardines	324
Cheddar cheese, 1½ oz. shredded	306
Milk, nonfat, 1 cup	302
Yogurt, plain, low-fat, 1 cup	300
Soybeans, cooked, 1 cup	261
Orange juice, fortified with calcium, 6 oz	200-260 (varies)
Almonds ½ cup	162
Baked beans, 1 cup	142
Cottage cheese, 1% milk fat, 1 cup	138
Spaghetti, lasagna, 1 cup	125
Cheese pizza, 1 slice	100
Fortified waffles, 2	100
Broccoli, raw, 1 cup	90
Ice cream, vanilla, ½ cup	85
Soy/rice milk, fortified with calcium, 1 cup	80-500

#### Selected supplements

Age Range	Product	Dose	Vit D (IU)	Calcium (mg.)
Infant	Tri Vi sol/lor	1 ml	400	0
	Poly Vi sol/lor	1 ml	400	0
Child	Flinstones Complete	1 chew	400	100
	Flinstones + Calcium	1 chew	400	200
Teen	Centrum Jr	1 tab	400	108
	One A day Teen - For HIM	1 tab	400	200
	One A day Teen - For HER	1 tab	800	300
	ViActiv	1 chew	500	500
	Tums	1 tab	0	200