

Calcium Fact Sheet

New Adequate Intakes for Calcium*

Groups in years:

1 -3.....	500mg
4 - 8.....	800mg
9 -18.....	1300mg
19 - 50.....	1000mg
51 - 70.....	1200mg
19 - 50	1,000mg
pregnant, breast feeding or menopausal.....	1200mg
51 on.....	1,200mg



The tolerable upper limit level was set as 2500mg/day for all age groups.

*As recommended by the Food and Nutrition Board, National Academy of Sciences 1997. This chart was developed by the Calcium Information Center. If you would like more information on calcium nutrition, contact the Calcium Information Center at 1-800-321-2681.

Best Sources of Calcium in the Four Food Groups

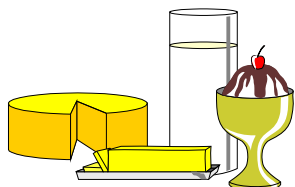
Milk Group	Amount	mg	Fruit and Vegetables Group	Amount	mg
Yogurt, plain lowfat	1 cup	415	Collards, cooked	1/2 cup	168
Milk, nonfat dry	1/4 cup	377	Turnip greens, cooked	1/2 cup	134
Yogurt, fruit-flavored lowfat	1 cup	345	Kale, cooked	1/2 cup	103
Cheese, Parmesan grated	1/4 cup	338	Spinach, cooked	1/2 cup	84
Milk, skim	1 cup	302	Broccoli, cooked	1/2 cup	68
Milk, 1%-2%	1 cup	300	Chard, cooked	1/2 cup	64
Milk, whole	1 cup	291	Orange	1 medium	60
Buttermilk	1 cup	285	Carrot, raw	1 medium	27
Milk, chocolate lowfat	1 cup	284	Dates, chopped	1/4 cup	26
Cheese, swiss	1 oz	272	Raisins	1/4 cup	22
Cheese, monterey jack	1 oz	212	Calcium-fortified orange juice	8 oz	300
Cheese, mozzarella low-moisture part skim	1 oz	207	Calcium-fortified cereals with milk (Total)	1/2 cup	350
Cheese, cheddar	1 oz	204			
Cheese, colby	1 oz	194	Meat Group	Amount	mg
Cheese, American	1 oz	174	Sardines, canned with bones	3 oz	372
Ice cream	1/2 cup	88	Salmon, pink canned with bones	3 oz	165
Cottage cheese, creamed	1/2 cup	63	Tofu, processed with calcium	4 oz	145
			Almonds, shelled	1 oz	66
Grain Group	Amount	mg	Soybeans, cooked	1/2 cup	66
Farina, enriched (instant cooked)	1 cup	189	Dried beans, cooked	1/2 cup	35-48
Tortilla, corn	1 medium	60	(lima, navy and kidney)		
Bread, whole wheat	1 slice	25	Egg	1 large	27
			Peanut butter	2 tbsp	18
Calcium-Fortified Foods	Amount	mg	Beef patty, cooked (21% fat)	3 oz	9
Orange juice/grapefruit juice	8 oz	300			
Calcium-fortified cereals	1 cup	300			

Calcium Booster Ideas

Many people find milk refreshing and never tire of drinking it. However, cooked and prepared foods offer other ways to get calcium into meals.

Breakfast:

- Use milk instead of water when you cook hot cereals.
- For waffles and pancakes, add 2 tbsp of non-fat dry milk into each cup of flour.
- How about buttermilk pancakes instead of plain pancakes?



Lunch and Dinner:

- Add shredded cheese to frozen pizza before baking, salads before tossing, spaghetti sauce, casseroles just before taking out of the oven.
- Choose a cheeseburger instead of a hamburger.
 - Substitute plain yogurt for sour cream on baked potatoes. It decreases calories and increases calcium!
 - Try using marinated raw broccoli as the vegetable choice at your meal. Kids love it!
 - Yogurt is a delicious dip for raw vegetables - good for an evening snack.
 - Hazelnuts are plentiful in the Northwest. Add them to salads, casseroles and meat loaf. Snack on fresh hazelnuts when they are in season.

You can increase the calcium value in many foods that contain fluid milk by adding non-fat dry milk (one tablespoon of dry non-fat milk contains 52 mg of calcium!). Try this when preparing soups, mashed potatoes, cereals and other cooked foods. If you add four tablespoons of non-fat dry milk to each cup of fluid milk, you will

get twice as much calcium and riboflavin as you would when fluid milk is used alone. Dry milk also may be sifted with dry ingredients. The following table may serve as a guide for adding more calcium to recipes with the use of non-fat dry milk.

To Prepared Food:

Breads, cakes, cookies, biscuits, pancakes, waffles	Sift 2 tbsp into each cup of flour
Meatloaf, sausage, hamburger	Mix 6 tbsp with each pound of meat
Cooked cereals	Mix 4 tbsp with each cup of cereal before cooking
Gravy, white sauces, cream soups	Use 3 tbsp with each cup of fluid
Custards, puddings, cocoa, eggnog	Add 3 tbsp to each cup of milk
Whipped cream	Add 2 tbsp to each cup of cream

Add Non-Fat Dry Milk:

How to Choose a Calcium Supplement

In general, we recommend using a calcium supplement in individuals who do not meet their daily requirements through diet alone. We suggest choosing a national brand to ensure USP (United States Pharmacopeia) standards are met so that dissolution and absorption are optimal. Avoid bone meal, oyster shell or dolomite as they may contain toxic ingredients.

There are three major choices for calcium supplements: calcium carbonate, calcium citrate, and calcium phosphate:

Calcium carbonate contains the highest amount of elemental calcium. When properly taken, it is well absorbed. Calcium carbonate is probably the most cost-effective supplement. It must be taken on a full stomach to be properly absorbed, since hydrochloric acid is excreted in response to eating which enhances

absorption. In some individuals, calcium carbonate may cause gas or constipation. In such cases, the usual measures such as increased fluid intake and increased activity are recommended. If these measures are unsuccessful, then switching to another calcium formulation is recommended.

Calcium phosphate is a well-absorbed supplement that does not cause gas and constipation. It can be taken without regard to food. Calcium phosphate tends to be more expensive than calcium carbonate, but less expensive than calcium citrate.

Calcium citrate is the most easily absorbed supplement and is 50% bioavailable. The only disadvantages are the higher cost and lower percent of elemental calcium. Calcium citrate is the salt that is used to fortify breakfast cereals and orange juices.

How to Take Calcium Supplements

Calcium is best absorbed if consumed throughout the day. However, taking it all at once is better than not taking it at all. We recommend that you choose a particular hour or meal and take the supplement regularly, thereby establishing a habit.

Certain substances in foods, such as spinach, rhubarb, and whole grains, may reduce the amount of calcium your body can absorb. However, these foods are

important sources of other vitamins and minerals. They should be included in a balanced diet, but not at the same time as when a calcium supplement is taken.

Certain aluminum-containing antacids and prescription medications may also interfere with absorption and retention. Consult your physician about the possibility of such an interaction.

Over-the-Counter Calcium Supplements

Calcium Carbonate

Provides 40% elemental calcium¹

Product Name	Type	Strength per tab in mgs	Elemental calcium in mgs
Alka-Mints	calcium carbonate	850	340
Caltrate	calcium carbonate	1500	600
OsCal	calcium carbonate	625 or 1250	250 or 500
Rolaids ²	calcium carbonate	550	220
Titralac Tablets	calcium carbonate	420	168
Titralac Liquid (1 tsp)	calcium carbonate	1000	400
Tums and Tums E-X ²	calcium carbonate	500 or 750	200 or 300
Tums Ultra and Tums 500 ²	calcium carbonate	1000 or 1250	400 or 500

¹ Calcium carbonate provides 40% elemental calcium. Therefore, a product which is 1250 mg calcium carbonate would yield 500 mg elemental calcium.

² Can be used safely as an antacid or calcium supplement. It does not contain other medication, only calcium carbonate.

Calcium Citrate

Provides 21% elemental calcium¹

Product Name	Type	Strength per tab in mgs	Elemental calcium in mgs
Citracal Liquitabs	calcium citrate	2376 mg/tab	500
Citracal 950	calcium citrate	950 mg/tab	200
Citracal 1500	calcium citrate	1500	315
Citracal 1500-D	calcium citrate	1500	315 + 200 I.U. vitamin D ₃

Calcium Phosphate (tribasic)

Provides 39% elemental calcium¹

Calcium Phosphate (dibasic)

Provides 30% elemental calcium¹

Product Name	Type	Strength per tab in mgs	Elemental calcium in mgs
Posture	calcium phosphate	1500 mg/tab	600 mg
Posture-D	calcium phosphate	1500 mg/tab	600 + 125 I.U. vitamin D ₃

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Clinic Nurse **510-643-7197** for advice