



Low Oxalate Diet

Approximately 1 in every 1,000 adults is hospitalized annually in the United States for kidney stones (renal calculi). Although kidney stones can be composed of different substances, more than 75% of the kidney stones in patients in the United States are made of calcium oxalate.

In combination with calcium, the oxalic acid (from the breakdown of oxalate in the body) crystallizes to form kidney stones—small grains that form in either the kidney or the bladder. Small grains are passed, larger ones as you already know may cause painful problems.

Parathyroid disease or malfunction can increase the risk of forming calcium oxalate stones as can surgical intestinal resection. Dietary factors may increase or decrease the risk of forming kidney stones. All further mention of kidney stones below refers only to calcium oxalate containing stones – not to other types.

Why I should follow this diet

A low-oxalate diet and increased water intake (3–4 quarts/liters per day) is often prescribed for people who have increased levels of oxalic acid in their urine or who have a history of forming kidney stones. A low oxalate diet is not always effective in reducing urinary oxalic acid levels because 1) normal individuals don't absorb an overwhelming amount of oxalate after ingesting foods high in it, and 2) most oxalate found in urine is made in the liver and does not come from the diet.

What I need to avoid

We once thought that the greater the oxalate level in a food, the more likely it was to increase the risk of forming a kidney stone. However, we have discovered that consumption of certain oxalate-containing foods is much more likely to significantly increase urinary oxalate. The foods reported by at least one group of researchers to cause a significant increase in urinary oxalate include spinach, rhubarb, beets, nuts, chocolate, wheat bran, strawberries, peanuts, almonds, tea, and powdered coffee. High Vitamin C intake (>4 grams/day), and high calcium intake may also be culprits – again, it is wise to follow the old adage eat and drink in moderation!!

There is no universal consensus on which oxalate-containing foods belong on this list. Nonetheless, we are aware that the important issue for people with a history of kidney stone formation is to avoid those high-oxalate foods most responsible for increasing urinary levels of oxalate.

To avoid oxalate:

- Read food labels carefully when shopping
- When dining out ask about ingredients at restaurants.

The following list is not meant to be all-inclusive:

High Oxalate	Moderately high	Low in oxalate - Eat as desired
(>10 mg / serving):	(2–10 mg / serving)	(0–2 mg / serving)
Beans in tomato sauce	Apple	Apple juice
Beer	Apricots	Avocado
Beets	Asparagus	Bacon
Blackberries	Bottled beer (12 oz limit/day)	Ananas
Black and red raspberries	Broccoli	Beef (lean)
Blueberries	Carrots	Bing cherries
Celery	Chicken noodle soup (dried)	Brussels sprouts
Chard	Coffee (8 oz)	Cabbage
Chocolate	Cola beverage (12 oz limit per day)	Cauliflower
Cocoa	Corn	Cheese
Coffee powder Collards	Cornbread	Eggs
Concord grapes	Cucumber	Grapefruit
Crackers from soy	Lettuce	Green grapes
Currants	Lima beans	Jellies
Dandelion greens	Marmalade	Lamb (lean)
Eggplant	Oranges	Lemonade or lime-aid (without peel)

Escarole	Orange juice (4 oz)	Melons
Fruit cake	Parsnips	Milk
Fruit salad (canned) Green pepper	Peaches	Mushrooms
Grits (white corn)	Pears	Pork (lean)
Berry Juices	Peas (canned)	Poultry
Kale	Pepper (greater than 1 tsp per day)	Preserves
Leeks	Pineapple	Nectarines
Lemon and lime peel	Plums	Noodles
Nuts (especially peanuts, pecans)	Prunes	Oatmeal
Okra	Sardines	Oils
Ovaltine	Soy products (most)	Onions
Parsley	Sponge cake	Peas (fresh)
Rhubarb	Tomatoes	Plums
Rutabagas	Tomato juice (4 oz)	Radishes
Spinach	Turnip	Rice
Strawberries	Watercress	Salad dressing
Summer squash		Seafood
Sweet potatoes		Spaghetti noodles
Tea		White bread
Tofu		Wine
Tomato soup		Yogurt
Wheat germ		