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. A hereditary condition can increase the risk of forming calcium oxalate stones. Intestinal resection, parathyroidism, and other more rare conditions also may cause renal calculi, and dietary factors can increase or reduce the risk of forming kidney stones. All further mention of kidney stones in this section refers only to calcium oxalate stones. The information provided here does not apply to other forms of kidney stones.

Why do people follow this diet?
A low-oxalate diet 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 treatment program including a low-oxalate diet and plenty of fluids reduces the risk of stone formation. A low oxalate diet is not always effective in reducing urinary oxalate levels because most oxalate found in urine is made in the body and does not come from the diet. People with a predisposition to stones are also encouraged to drink plenty of fluids (3–4 quarts [liters] per day).

What do I need to avoid?
Scientists 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, researchers have discovered that consumption of only certain oxalate-containing foods is 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, and tea. Not every study has found tea to significantly increase urinary oxalate. There remains no universal consensus on which oxalate-containing foods belong on this list. Nonetheless, there is a growing awareness that the important issue for people with a history of kidney stone formation is to avoid certain high-oxalate foods—those that are most responsible for increasing urinary levels of oxalate.

To avoid oxalate ask about ingredients at restaurants and others’ homes, and read food labels. The following list is not complete. Consult with a healthcare professional before making any significant changes to your diet.

These foods are high in oxalate (greater than 10 mg per serving):

- Beans in tomato sauce
- Beer
- Beets
- Blackberries
- Black and red raspberries
- Blueberries
- Celery
- Chard
- Chocolate
- Cocoa
- Coffee powder (Nescafe)
- Collards
- Concord grapes
- Crackers made from soy flour
- Currants
- Dandelion greens
- Eggplant
- Escarole
- Fruit cake
- Fruit salad (canned)
- Green bell pepper
- Grits (white corn)
- Juices containing berries
- Kale
- Leeks
- Lemon and lime peel
- Nuts (especially peanuts and pecans)
- Okra
- Ovaltine
- Parsley
- Pokeweed
- Rhubarb
- Rutabagas
- Spinach
- Strawberries
- Summer squash
- Sweet potatoes
- Tea
- Tofu
- Tomato soup
- Wheat germ

These foods are moderately high in oxalate (2–10 mg per serving):
- Apple
- Apricots
- Asparagus
- Bottled beer (12 oz [360 ml] limit/day)
- Broccoli
- Carrots
- Chicken noodle soup (dried)
- Coffee (8 oz [240 ml])
- Cola beverage (12 oz [360 ml] limit per day)
- Corn
- Cornbread
- Cucumber
- Lettuce
- Lima beans
• Marmalade
• Oranges
• Orange juice (4 oz [120 ml])
• Parsnips
• Peaches
• Pears
• Peas (canned)
• Pepper (greater than 1 tsp [2 grams] per day)
• Pineapple
• Plums
• Prunes
• Sardines
• Soy products (most)
• Sponge cake
• Tomatoes
• Tomato juice (4 oz [120 ml])
• Turnip
• Watercress

**Best bets**
These foods are low in oxalate (0–2 mg per serving); eat as desired:
• Apple juice
• Avocado
• Bacon
• Bananas
• Beef (lean)
• Bing cherries
• Brussels sprouts
• Cabbage
• Cauliflower
• Cheese
• Eggs
• Grapefruit
• Green grapes
• Jellies
• Lamb (lean)
• Lemonade or limeaid (without peel)
• Melons
• Milk
• Mushrooms
• Pork (lean)
• Poultry
• Preserves
• Nectarines
• Noodles
• Oatmeal
• Oils
• Onions
• Peas (fresh)
• Plums
• Radishes
• Rice
• Salad dressing
• Seafood
• Spaghetti
• White bread
• Wine
• Yogurt

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