

OXALATE

What is Oxalate?

Oxalate is a mineral found in food. It can be measured in urine, along with calcium and uric acid. An imbalance in these minerals can lead to the formation of kidney stones.

Why is Oxalate important for people with CKD or Kidney Stones?

Limiting the amount of oxalate in your diet to 40-50 milligrams per day, and drinking water may help to prevent kidney stones.

How do I lower Oxalate in my diet?

1. Eat fewer high-oxalate foods.

The more oxalate you eat, the more oxalate will be in your urine. A few high-oxalate foods to limit are spinach, bran flakes, rhubarb, beets, potato chips, French fries, nuts and nut butters.

Increase your consumption of fruits and vegetables as these are high in potassium and may help prevent stone formation.

2. Increase the amount of calcium in your diet.

A diet rich in calcium helps reduce the amount of oxalate being absorbed by your body, so stones are less likely to form. Calcium binds oxalate in the intestines, Eat calcium-rich foods and beverages every day (2-3 servings) from dairy foods or other calcium-rich foods. If you take a calcium supplement, calcium citrate is the preferred form.

3. Limit your Vitamin C intake.

Oxalate is produced as an end product of Vitamin C (ascorbic acid) metabolism. Large doses of Vitamin C may increase the amount of oxalate in your urine, increasing the risk of kidney stone formation. If you are taking a supplement, do not take more than 500 mg of Vitamin C daily.

4. Drink enough fluids every day.

Your goal should be 10-12 glasses a day. At least 5-6 glasses should be water.

5. Eat the proper amount of protein daily.

Eating large amounts of protein may increase the risk of kidney stone formation. Your daily protein needs can usually be met with 2-3 servings a day, or 4 to 6 ounces. Eating more than this may put you at risk for kidney stone formation.

6. Reduce the amount of sodium in your diet.

Reduce the amount of sodium in your diet to 2-3 grams per day. Limit eating processed foods such as hot dogs, deli meats, sausage, canned products, dry soup mixes, sauerkraut, pickles, and various convenience mixes. Read labels.

For more information, go to these websites:

www.kidney.org/nutrition/Kidney-Disease-Stages-1-4 • www.davita.com/diethelper
www.usda.gov • ChooseMyPlate.gov

OXALATE

All servings are 3.5 ounces (100 g) unless otherwise noted

Low Oxalate

These have less than 2 mg of oxalate per serving. Eat as many as you like.

Higher Oxalate

These have 2-6 mg of oxalate per serving. Don't eat more than 3 of these per day.

High Oxalate

These have more than 7 mg of oxalate per serving. Avoid these foods.

Drinks

Apple juice
Beer, bottled or canned
Cider
Distilled alcohol
Ginger ale
Grapefruit juice
Lemon juice
Lemonade/limeade (made without the peel)
Lime juice
Milk (skim, 2%, whole)
Orange soda
Pineapple
Root beer
Tea, instant
Water
Wine

Coffee (limit to 8oz/day)
Cola (limit to 8oz/day)
Cranberry juice
Grape juice
Orange juice
Orangeade

Any juice made from high-oxalate fruits
Beer, draft
Chocolate, plain
Chocolate milk
Cocoa
Coffee powder (instant)
Ovaltine
Tea, brewed

Dairy

Milk (skim, 2%, whole)
Buttermilk
Yogurt with allowed fruit
Cheese

None

Chocolate milk

Meat

Beef, lamb, pork
Eggs
Fish/shellfish
Poultry

Beef kidney
Liver

None

Meat Substitutes, Beans, Nuts, and Seeds

Eggs
Lentils
Water chestnuts

Garbanzo beans, canned
Lima beans
Split peas, cooked

Almonds
Baked beans canned in tomato sauce
Cashews
Green beans, waxed and dried
Peanut butter
Peanuts
Pecans
Sesame seeds
Sunflower seeds
Tofu (soybean curd)
Walnuts

Fats and Oils

All

None

None

Breads and Starches

Bread
Breakfast cereal
Noodles, egg or macaroni
Rice, white or wild

Barley, cooked
Corn bread
Corn tortilla
Cornmeal
Cornstarch
Flour, white or wheat
Oatmeal
Rice, brown
Unsalted saltine or soda crackers
Spaghetti in tomato sauce
Sponge cake

Fig Newtons
Fruit cake
Graham crackers
Grits, white corn
Kamut
Marmalade
Soybean crackers
Wheat germ

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Fruit

Apple, peeled
Avocado
Banana
Cantaloupe
Casaba
Cherries, bing
Coconut
Cranberries, canned
Grapes, green
Honeydew
Mangoes
Nectarines
Papaya
Raisins
Watermelon

Apples with skin
Apricots
Black currants
Grapefruit
Oranges
Peaches
Pears
Pineapple
Plums
Prunes

Blackberries
Black raspberries
Blueberries
Red currants
Dewberries
Figs, dried
Grapes, purple
Gooseberries
Kiwi
Lemon peel
Lime peel
Orange peel
Red raspberries
Tangerines
Any juice made from above fruits

Vegetables

Acorn squash
Alfalfa sprouts
Cabbage
Cauliflower
Peas, frozen and fresh
Peppers, red
Radishes
Turnips, roots
Zucchini
Squash

Asparagus
Artichokes
Brussels sprouts
Broccoli
Carrots
Corn
Cucumbers, peeled
Kohlrabi
Lettuce
Lima beans
Mushrooms
Onions
Potatoes, white
Peas, canned
Snow peas
Tomato, fresh
Tomato sauce

Beans (green, wax, dried)
Beets (tops, roots, greens)
Celery
Chives
Collards
Dandelion
Eggplant
Escarole
Kale
Leeks
Mustard greens
Okra
Parsley
Parsnips
Peppers, green
Pokeweed
Rutabagas
Sorrel
Spinach
Summer squash
Sweet potatoes
Swiss chard
Tomato soup
Vegetable soup
Watercress
Yams

Condiments

Any not listed

Basil, fresh
Malt, powder
Pepper

Cinnamon, ground
Parsley, raw
Pepper, more than 1 tsp a day
Ginger
Soy sauce