

Oxalate Content of Food

The oxalate content of food can vary considerably between plants of the same species, due to differences in climate, soil quality, state of ripeness, or even which part of the plant is analyzed. Variations also may be caused by the different methods used for measuring oxalate in food. Published values for some foods can vary from negligible amounts to moderately high, so the foods have been grouped into broad ranges based on the higher values reported for each food. In using these tables, it is very important to pay attention to the serving sizes listed.

A low oxalate diet is usually defined as less than 80mg oxalate per day. However, dietary oxalate restrictions will vary depending on the underlying condition causing high oxalate levels. The following suggested oxalate restrictions should be used only as a guide. Please check with your health provider to determine the appropriate level of oxalate restriction for you.

- **Very High Oxalate Foods:** all individuals with calcium oxalate kidney stones, including those with Primary Hyperoxaluria are advised to avoid these foods.
- **High Oxalate Foods:** Individuals with calcium oxalate kidney stones and high urine oxalate levels (hyperoxaluria), except those with Primary Hyperoxaluria are advised to avoid these foods.
 - *Note: People with Primary Hyperoxaluria may not benefit from restricting these foods, as this will only limit their intake of other important nutrients without improving the hyperoxaluria.*
- **Moderate Oxalate Foods:** Individuals with Enteric Hyperoxaluria, should avoid these foods and all foods considered Very High Oxalate and High Oxalate. They should also be sure to have a high daily fluid intake.
 - *Note: It may not be necessary for others with kidney stones and hyperoxaluria to restrict these foods, provided they consume adequate calcium at each meal (equivalent of 2/3 cup milk or 1 oz cheese or approximately 200mg calcium) & drink plenty of fluids.*
- **Low Oxalate Foods:** These foods should be safe for most people with calcium oxalate stones regardless of the underlying cause, provided they eat adequate calcium at each meal & drink plenty of fluids.

VERY HIGH OXALATE

All people with Calcium Oxalate Kidney Stones, including those with Primary Hyperoxaluria, should avoid these foods in any amount

All Bran	Chocolate Soy Milk	Rhubarb: cooked or raw
Almonds	Miso	Sesame seeds: raw or cooked
Buckwheat Flower, whole-groat	Mixed nuts without peanuts	Spinach: raw or cooked
Beets: cooked, pickled, or raw	Tahini	Swiss Chard (red/green): raw/cooked

BAKED GOODS

Serving= noted per item

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
Tortilla (flour/wheat): plain (12")	Bagel (Wholegrain wheat) (1 Med)	Biscuit (plain) (2 1/2" diameter)
	Choc. cake w/choc. frosting 1/8 of 18oz cake)	Bread (mixed grain) (1 slice - 1 oz)
	Choc. chip cookies w/nuts (1 oz)	Bread (white) (1 slice - 1 oz)
	Muffins (blueberry): 1 medium	Bread (whole wheat) (1 slice - 1 oz)
	Pie Crust (1/8 of pie)	Cheese crackers (5 crackers)
	Pita Bread (white) (6 1/2" diameter)	Chocolate chip cookies (1 item - 1oz)
		Cornbread (1 piece)
		Croissant (plain) (1 medium)
		Danish pastry (1 medium)
		English muffin (plain-white) (2oz)
		French toast (plain) (1 slice)
		Graham crackers
		Granola bar (no nuts/chocolate)
		Muffins (banana) (1 item)
		Pancakes (plain) (1 item= 4" diameter)
		Pie crust (graham cracker)
		Pop Tarts (1 pastry)
		Pound cake (1/12 of 12 oz cake)
		Ritz crackers (6 crackers)
		Rolls (hamburger/hotdog-plain)
		Saltine crackers (2 crackers)
		Scone (plain) (1 medium)
		Tortilla (corn-plain) (8" diameter)
		Tortilla (flour-white) (8" diameter)
		Vanilla wafers (4 wafers)
		Waffle (frozen) (1 medium= 4" round)
		Waffle (homemade)
		Wheat Thins crackers (6 crackers)

BEVERAGES

Serving= any amount (unless indicated)

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
Latte or Cappuccino w/ soy milk	Hot cocoa/chocolate	Alcohol (distilled)
Mocha or hot chocolate w/ soy milk	Mocha made w/ milk	Beer (regular or light) (12 fl oz)
	Tea (black, green, or white)	Bloody Mary (1/4 cup)
		Carnation Instant Breakfast
		Coffee or Espresso
		Fruit Punch, Hi-C, & Kool-Aid
		Herbal tea (2 cups)
		Latte or Cappuccino made w/ milk
		Lemonade w/ sugar or sugar free
		Soda (cola/non-cola)
		Wine (red, white, and blush)

BREAKFAST CEREALS

Serving= noted per item

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
40% bran (3/4 cup)	Cocoa Krispies (1 cup)	Apple Jacks
Cream of wheat (1 cup)	Oats: raw (1/2 cup)	Cheerios
Granola (1/3 cup)	Oatmeal: cooked (1 cup)	Corn Flakes
Grits: cooked (1/2 cup)		Rice Krispies
Raisin Bran (3/4 cup)		Special K
Shredded Wheat (3/4 cup)		Total
		Wheat Chex

FATS & OILS

Serving= any amount

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
- NONE -	- NONE -	1000 Island dressing
		Blue cheese dressing
		Butter (regular & low fat)
		Caesar dressing
		Crisco lard or shortening
		French dressing
		Italian dressing
		Margarine
		Mayonnaise or Miracle Whip
		Ranch dressing
		Sour cream
		Vegetable oils- all kinds

FRUIT JUICE

Serving= 1/2 cup

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
		Apple juice
		Cranberry Juice Cocktail
		Grape juice (red or white)
		Grapefruit juice
		Lemon or lime juice
		Orange juice
		Papaya
		Pineapple juice
		Prune juice
		Tomato juice (1 can- 6 fl. oz)

FISH & SEAFOOD

Serving= any amount (unless indicated)

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
- NONE -	- NONE -	Bluefish (4 oz)
		Clam: canned
		Clams
		Cod: cooked
		Crab: cooked
		Fish (white- fried w/flour) (4oz)
		Fish (white-pre breaded) (4oz)
		Halibut: baked
		Lobster
		Mackerel: baked (4 oz)
		Oysters
		Salmon (Atlantic): cooked
		Shrimp
		Snapper: baked
		Sole: baked
		Tuna salad w/mayo (1/2 cup)
		Tuna: canned in oil or water (1/2 cup)

GRAINS & PASTA

Serving= noted per item

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
Barley: raw (1/2 cup)	Bulgar: dry (1/2 cup)	Cornstarch (1/2 cup)
Cornmeal (yellow) (1/2 cup)	Egg Noodles: dry (1 cup)	Hominy (1 cup)
Flour (wheat/whole grain) 1/2 cup	Macaroni (elbow): dry (1/2 cup)	Oat bran: raw (1/4 cup)
Rice flour (brown) 1/2 cup	Macaroni salad w/mayo (1/2 cup)	Rice (white-long grain): raw (1/3 cup)
Spaghetti (whole wheat): dry (2 oz)	Rice (brown): cooked (1 cup)	Rice (white): cooked (1 cup)
Wheat bran: crude (2 Tbs)	Rye Flour (medium) 1/2 cup	Rice noodles: fresh (1 cup)
	Spaghetti/pasta: dry (2 oz)	Semolina: raw (1/4 cup)
		Cornstarch (1/2 cup)

FRUIT

Serving= 1/2 cup

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
Apricot: dried	Blackberries: fresh	Apples: fresh w/ skin
Figs: canned or stewed	Blueberries: fresh or frozen	Applesauce
Figs: raw or dried (1 medium)	Fruit cocktail	Apricots: fresh and canned (1 item)
Kiwi: raw (1 item)	Lemon peel: raw (1 tsp)	Avocados: raw
	Mandarin oranges	Banana: fresh
	Mango: fresh (1 medium)	Cantaloupe
	Orange peel: raw (1 tsp)	Cherries: sweet, fresh, or canned
	Oranges: fresh (1 small)	Coconut: fresh
	Prunes: dried	Cranberries: dried or sweetened
	Strawberries: frozen	Cranberry Sauce: fresh or canned
		Grapefruit: fresh (1/2 medium)
		Grapes (red or green): raw
		Lemons: raw (without peel)
		Litchi (lychee)
		Melons (all types)
		Nectarine: fresh
		Olives (ripe): canned
		Oranges: fresh (1 medium)
		Papaya
		Passion fruit
		Peaches: fresh or canned
		Pear: fresh (1 medium)
		Pears: canned
		Pineapple: fresh or canned
		Plums (green or yellow): fresh
		Raisins
		Raspberries: fresh
		Strawberries: fresh
		Tangerines: fresh (2 medium)
		Watermelon

LEGUMES

Serving= 1/2 cup

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
Black beans: boiled 1/4 cup	Adsuki beans: boiled 1/4 cup	Black-eyed peas: cooked
Chili beans : cooked	Adsuki beans: boiled 1/4 cup	Garbanzo beans: cooked 1/4 cup
Great northern beans: boiled 1/4 cup	Baked beans: canned or plain	Lentils: boiled
Navy beans: boiled 1/4 cup	Kidney beans: boiled	Lentils: dried 1/4 cup
Pink beans: raw 1/4 cup	Pinto beans: raw 1/4 cup	Lima beans: boiled
White beans: boiled 1/4 cup		Refried beans (Pinto) 1/4 cup
		Split Peas: boiled

MEAT & POULTRY

Serving= any amount (unless indicated)

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
- NONE -	- NONE -	Bacon
		Beef (all kinds)
		Bologna
		Bratwurst (no bun)
		Chicken (all parts)
		Chicken nuggets (6 nuggets)
		Hot dogs (no bun)
		Lamb: cooked
		Liver (beef/pork/chicken) (4oz)
		Luncheon meat (ham or turkey)
		Meatloaf (beef) (4 oz)
		Organ meats (4 oz)
		Sausage
		Turkey (all parts)

NUTS & SEEDS

Serving= 1/4 cup

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
Cashew nuts: raw	Macadamia nuts: raw	Coconut meat: dried
Hazelnuts or filberts	Peanut Butter (JIF) (1 Tbs)	Coconut meat: raw
Mixed nuts with peanuts	Pistachio nuts: raw	Flax seed
Peanut butter (generic) (2 Tbs)	Walnuts, English	Pumpkin & squash seeds: dried
Peanuts		Sunflower seeds
Pecans		

SNACK FOODS

Serving= noted per item

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
	Potato chips (1 cup or small bag)	Cheese puffs (corn based) (1 oz)
	Wafer w/ peanut butter or choc cover (2 oz)	Corn chips (1 cup or 1 small bag)
		Fig bar
		Fruit cereal bar (1 bar)
		Popcorn (1 cup)
		Pretzels (1 oz or 1 small bag)
		Tortilla chips (1 cup or 1 small bag)

SOUPS, SAUCES, & GRAVIES

Serving= 1 cup (unless indicated)

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
Lentil & potato soup	Bean (mixed) soup	Cheese sauce (1/4 cup)
	Black bean soup	Cheese soup
	Clam chowder	Chicken broth (home prepared)
	Cream of mushroom soup	Chicken noodle soup (1 cup)
	Cream of potato soup	Fish broth
	Minestrone soup	Gravy (beef- made w/drippings)
	Miso soup	Gravy (turkey- made w/ drippings)
	Ramen noodle (any flavor): dry (1/2 pack)	Green pea soup
	Ramen noodle soup	Hollandaise sauce
	Spaghetti/marinara sauce (1/2 cup)	Ketchup (regular) (3 Tbs)
	Vegetable soup w/ allowed vegetables	Lentil soup
		Mustard
		Salsa (1 Tbs)
		Split pea soup
		Tobasco Sauce
		Tomato soup
		White sauce (1/4 cup)
		Worcestershire sauce (1 Tbs)

SOY PRODUCTS

Serving= noted per item

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
Chili (meatless- made with TVP) (1 cup)	Edamame (1/2 cup)	Bacon bits (imitation) (1 Tbs)
Ground meat substitute (3 oz)	Latte or Cappucino (soy milk) (1 cup)	Natto (fermented soybeans) (1 Tbs)
Hot chocolate (soy milk) (1 cup)	Soy cheese (1 oz)	Soy bacon (1 oz)
Mocha (soy milk) (1 cup)	Soy crackers (6 crackers)	Soy cream cheese (1 Tbs)
Soy burger (2 1/2 oz)	Soy ice cream (1/2 cup)	Soy flour (defatted) (1 Tbs)
Soy hot dog/sausage (1 item)	Soy ice cream bar (1 bar)	Soy sauce (1 Tbs)
Soy nuts: roasted (1/4 cup)	Tofu (cheese) (1 oz)	Teriyaki sauce (1 Tbs)
Soy protein concentrate (1 oz)	Tofu (firm) (1/4 cup)	
Soy yogurt (1 cup)		
Soybeans: boiled (1/2 cup)		
Soybeans: dry roasted (1/4 cup)		

SPICES & HERBS

Serving= any amount (unless indicated)

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
Poppy seed	Black pepper	Balsamic vinegar (1 Tbs)
Turmeric: ground	Caraway seed	Basil: fresh (1 Tbs)
	Cloves	Capers: canned
	Cumin seed	Chili powder
	Curry powder	Cilantro (coriander): raw (9 sprigs)
		Cinnamon: ground
		Cream of tartar
		Dill weed: fresh
		Garlic: raw or powder
		Ginger root: raw
		Horseradish: prepared
		Marjoram: dried
		Mustard
		Nutmeg: ground
		Onion powder
		Oregano: dried
		Parsley: fresh
		Peppermint: fresh
		Sage: ground
		Salt
		Savory: ground
		Sugar (brown or white)
		Thyme: dried
		Vanilla extract
		Vinegar (distilled)
		White pepper
		Yeast (bakers-dry) (1 packet)

SWEETS, CANDY, & DESSERTS

Serving= noted per item

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
3 Musketeers bar (2 oz)	7 layer bar (chocolate & coconut) (1.5 oz)	Angel food cake (1 1/2 oz)
Butterfinger candy bar (2 oz)	Apple pie (1/8 of a pie)	Butter cookies (1 oz)
Chocolate chips (semisweet) (1/4 cup)	Cherry pie (1/8 of a pie)	Butterscotch confectioner coating
Dark chocolate (plain) (1 1/2 oz)	Chocolate Cake (1/8 of 18oz cake)	Corn syrup
Dark chocolate w/ nuts (1 1/2 oz)	Chocolate pudding (1/2 cup)	Doughnut (cake/raised-plain) (1.75 oz)
Dark chocolate w/ peanut butter (1 1/2 oz)	Chocolate syrup	Gelatin (with or without sugar)
Milk chocolate (plain) (1 1/2 oz)	Granola bar (chocolate chip) (1.5 oz)	Ginger snap cookies (1 oz)
Milk chocolate candy w/ nuts (1 1/2 oz)	Peanut Brittle (1 oz)	Hershey's kisses (milk chocolate) (1 item)
Milk chocolate w/ peanut butter (1 1/2 oz)	Toffee bar (1.5 oz)	Honey
Pie (chocolate cream) (1/8 of a pie)		Jelly beans or Lifesavers candy
Snickers bar (2 oz)		Jelly or Jam w/ allowed fruits
		Molasses
		Nutter Butter cookies
		Oatmeal cookies (1.5 oz)
		Oatmeal raisin cookies (1 oz)
		Pancake syrup
		Powdered sugar
		Rice Krispie treat bar
		Sugar cookies
		Vanilla pudding
		White cake (not frosted) (1/8 of 18oz cake)

VEGETABLES

Serving= 1/2 cup

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
Collard greens: cooked	Baked beans	Artichokes: boiled
Mustard greens	Carrots: cooked	Asparagus: cooked
Okra: cooked	Celery: raw	Avocado: fresh
Potato (French fries- 4oz)	French Fries	Broccoli: raw or cooked
Potato: fried	Green beans: fresh or cooked	Brussel sprouts: cooked
Sweet potato: baked	Kidney beans: cooked	Cauliflower: raw or cooked
Sweet potato: canned	Pinto beans: cooked	Chili Peppers: raw hot or green
Tomato: canned or paste	Potato Salad (w/mayo)	Chives: raw
	Potato: boiled w/o skin (medium)	Coleslaw (with mayo dressing)
	Potato: mashed w/milk & fat	Corn: fresh or canned
	Refried beans: canned/reg/fat free	Cucumber
	Summer squash: cooked	Garlic: cooked
	Tomato sauce (no salt added)	Green pepper: raw and cooked (1/4 cup)
	Tomatoes: raw (1 medium)	Guacamole
	Tomatoes: red, ripe, canned	Hominy
	V-8 Juice	Lettuce: iceberg or romaine
	Winter squash	Lima Beans: cooked
		Mung beans: sprouted or canned
		Mushrooms: cooked or boiled
		Onions: cooked
		Onions: raw green
		Peas: fresh, boiled, or canned
		Pickles: crunchy
		Pumpkin: canned
		Red Pepper: raw or cooked
		Sauerkraut
		Squash: Zucchini
		String beans: canned
		Tomato Juice
		V-8 Splash
		Water chestnuts: canned

MIXED MEAL EXAMPLES

Serving= 1 cup (unless indicated)

HIGH OXALATE 26-99mg per serving	MODERATE OXALATE 10-25mg per serving	LOW OXALATE 5-10mg per serving
Beef stew w/ potato	Cheese pizza (1/4 of 12" pizza)	Bacon, egg, and cheese biscuit
Burrito w/ bean & cheese (5 oz)	Chicken casserole w/ creme sauce	Enchilada or taco sauce
Chicken pot pie	Chicken chow mein	Fried rice w/ meat, poultry, or fish
Chili (meatless w/ TVP)	Chili (meatless)	Hamburger and bun (plain)
Lasagna w/ meat (whole wheat) (11 oz)	Chili w/ beef and beans	Lamb: curried w/ no vegetables
Tamales w/ meat (4 oz)	Enchilada (chicken) (7 oz)	Meatloaf w/ ground beef (4oz)
Tofu & broccoli stir fry	Lasagna w/ meat sauce	Quesadilla (oz)
	Macaroni and cheese	
	Macaroni salad w/ mayo (1/2 cup)	
	Meat Pizza (1/4 of 12" pizza)	
	Pad Thai	
	Quesadilla w/ cheese (5.1 oz)	
	Taco w/ beef and cheese (4 oz)	
	Tostada w/ beans and cheese (6 oz)	
	Veggie Pizza w/ allowed Vegetables (1/4 of 12" pizza)	

