



# Phosphorus

Phosphorus is a mineral found in many foods. When you have kidney disease, phosphorus may build up in your blood. This can weaken your bones over time.



Phosphorus works with calcium to build bone. Your body works best when these minerals are in balance. When calcium and phosphorus are out of balance you may run the risk of bone tissue forming in your heart, liver, and blood vessels. Some common symptoms of high phosphorus include bone & joint pain, weakness, itching, bone weakness and red eyes.

Normal phosphorus level for persons on dialysis is: 3.5 – 6.0

Your phosphorus level is: \_\_\_\_\_

To keep your phosphorus under control:

- If your Doctor has prescribed a phosphorus binder for you, always take as directed with every meal and snack.
- Avoid eating a lot of high phosphorus foods.

Some foods are so high in phosphorus that you will have to limit your intake. Phosphorus intake from food and drinks should be less than 900 mg per day in most people. The following list can help you to help to make lower phosphorus food choices.





If you have questions or concerns about lowering the phosphorus in your diet, or about taking your phosphorus binders be sure to talk to your doctor or dietitian.






# Phosphorus Content of Foods

**Bolded** foods are considered **High** in phosphorus as they have more than 200 mg of phosphorus per serving. Ask your dietitian if these foods are all right for you to eat.

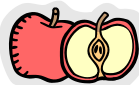
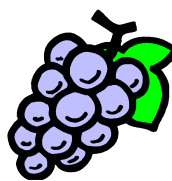
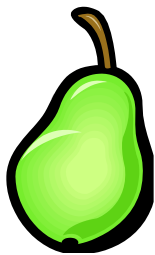
## Meat, Fish & Poultry:

Food Item	Amount		Mg Phosphorus
Beef (80% lean, ground)	3 oz		165
<b>(bottom round)</b>	<b>3 oz</b>		<b>217</b>
Lamb (leg)	3 oz		162
<b>Liver (beef)</b>	<b>3 oz</b>		<b>392</b>
<b>Pork (loin)</b>	<b>3 oz</b>		<b>200</b>
<b>Veal</b>	<b>3 oz</b>		<b>200</b>
Fish:			
Clams (raw)	3 oz		144
<b>Cod</b>	<b>3 oz</b>		<b>200</b>
Crab	3 oz		175
<b>Haddock</b>	<b>3 oz</b>		<b>205</b>
Lobster	3 oz		157
Oysters	3 oz		172
<b>Sardines w/bone</b>	<b>3 oz</b>		<b>420</b>
Scallops	3 oz		186
Shrimp	3 oz		116
<b>Salmon (canned w/bone)</b>	<b>3 oz</b>		<b>280</b>
<b>(fresh, cooked)</b>	<b>3 oz</b>		<b>235</b>
Tuna (light, in water)	3 oz		139
<b>(light, in oil)</b>	<b>3 oz</b>		<b>265</b>
<b>(fresh, cooked)</b>	<b>3 oz</b>	<b>208</b>	
Poultry & Eggs:			
Chicken (white)	3 oz		180
(dark)	3 oz		157
Duck (domestic)	3 oz		173
Turkey (white)	3 oz		184
(dark)	3 oz		171
Egg	1 med		90

## Milk & Dairy Products

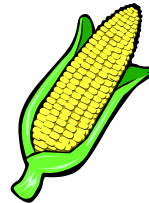
Food Item	Amount	Mg Phosphorus
Milk:		
<b>Whole</b>	<b>1 cup</b>	<b>227</b>
<b>Skim (0 - 1% milk fat)</b>	<b>1 cup</b>	<b>247</b>
<b>Evaporated nonfat</b>	<b>1 cup</b>	<b>499</b>
<b>Non-fat dry solids</b>	<b>1/3 cup</b>	<b>227</b>
<b>Buttermilk</b>	<b>1 cup</b>	<b>218</b>
<b>Chocolate low fat</b>	<b>1 cup</b>	<b>255</b>
<b>Eggnog</b>	<b>1 cup</b>	<b>277</b>
		
Milk substitutes:		
Soy milk	1 cup	120
Rice beverage	1 cup	34
Vitamite 100®	1 cup	150
Dairy:		
Butter/Margarine	1 Tbsp	3
<b>Cheese (American)</b>	<b>1 oz</b>	<b>211</b>
(blue)	1 oz	110
(cheddar)	1 oz	145
(mozzarella)	1 oz	149
(swiss)	1 oz	172
(parmesan)	1 Tbsp	40
(cottage, 1% milkfat)	½ cup	151
(cottage, 2% fat)	½ cup	170
<b>(ricotta, skim)</b>	<b>½ cup</b>	<b>225</b>
Cream cheese	1 Tbsp	15
Sour Cream	1 Tbsp	10
½ & ½ cream	1 Tbsp	14
Ice Cream (vanilla)	½ cup	69
Ice Milk (soft serve)	½ cup	106
Sherbert	½ cup	38
<b>Yogurt (skim, plain)</b>	<b>1 cup/13g protein</b>	<b>356</b>
<b>(whole)</b>	<b>1 cup/8g protein</b>	<b>215</b>
<b>(fruit)</b>	<b>1 cup/10g protein</b>	<b>270</b>
		
		

## Fresh Fruit & Fruit Juices

<u>Food Item</u>	<u>Amount</u>		<u>Mg Phosphorus</u>
Apple	1 med		10
Applesauce	½ cup		9
Apple juice	1 cup		17
Apricot	1 med		7
Banana	1 med		24
Blueberries	½ cup		8
Cantaloupe	1/8 melon		12
Cherries, red, sweet	10 each		13
Cranberries, fresh	½ cup		7
Cranberry sauce	1 slice		3
Cranberry juice	½ cup		3
Figs, dried	2 each		26
Grapes	½ cup		11
Grape juice	½ cup		5
Grapefruit	½ fruit		11
Grapefruit juice	½ cup		14
Honeydew	1/8 melon		16
Kiwi	1 med		30
Mango	1 med		23
Nectarines	1 med		22
Orange	1 med		18
Orange juice	½ cup		20
Peach	1 med		12
Pears	1 med		18
Pineapple	½ cup		6
Pineapple juice	½ cup		10
Plums	1 med		7
Prunes, dried	5 each		33
Prune juice	½ cup		32
Raisins	½ cup		71
Raspberries	½ cup		8
Rhubarb	½ cup		9
Strawberries	½ cup		16
Tangerines (mandarin)	1 med		8
Watermelon	1 cup		14

## Fresh Vegetables

Food Item	Amount	Mg Phosphorus
Artichokes	1 med	103
Asparagus	4 spears	32
Avocado	1 med	105
Beans (baked)	½ cup	132
(northern)	½ cup	146
(kidney)	½ cup	126
(lima)	½ cup	100
(refried)	½ cup	109
(green/yellow snap)	½ cup	21
Beets	½ cup	33
Broccoli	½ cup	29
Cabbage	½ cup	8
Carrots	½ cup	24
Cauliflower	½ cup	22
Celery	½ cup	15
Corn (kernel)	½ cup	69
(creamed in can)	½ cup	66
Cucumber	½ cup	11
Lettuce	½ cup	7
Lentils	½ cup	178
Mushrooms	½ cup	37
Okra	½ cup	32
Onions	½ cup	27
Parsnips	½ cup	47
Peas (green)	½ cup	57
(crowder, blackeye)	½ cup	134
Peppers, red or green	1 med	23
Pickle, dill	1 pickle	14
Potato, baked	1 med	141
Potato, boil/mash	½ cup	101
Potato, baked yam	1 med	80
Rutabaga, boil/mash	½ cup	67
Spinach	½ cup	8
Squash, summer/winter	1 cup	45
Tomato	1 med	30
Tomato juice	½ cup	23



## Grains & Starches

Food Item	Amount	Mg Phosphorus
Bagel	3 ½ ”	60
Biscuit	2 ½ ” round	98
Bread (corn)	2”x2” square	110
(Indian fry)	5” bread	141
(7 grain)	1 slice	46
(pumpernickel)	1 slice	57
(rye)	1 slice	40
(white)	1 slice	24
Cake, white, no frosting	2”x2” square	69
Cereals (Cheerios®)	1 cup	100
(cornflakes)	1 cup	14
<b>(raisin bran)</b>	<b>1 cup</b>	<b>259</b>
(Rice Krispies®)	1 cup	37
<b>(All bran®)</b>	<b>½ cup</b>	<b>339</b>
(shredded wheat)	2 biscuits	168
<b>(bran flakes)</b>	<b>1 cup</b>	<b>209</b>
(granola)	½ cup	175
(cream of wheat)	1 cup	100
(malt o meal)	1 cup	24
(oatmeal)	1 cup	178
(farina)	1 cup	28
Crackers (saltines)	4 crackers	13
(whole-wheat)	4 crackers	47
(graham)	4 crackers	29
Croissants	1 croissant	60
English Muffin	1 muffin	76
Noodles, egg	1 cup cooked	110
Pancakes, plain, frozen	1 pancake	134
Rice (white)	½ cup	37
(brown)	½ cup	81
Buns, hamburger/hotdog	1 bun	38
Muffin <b>(blueberry)</b>	<b>1 med</b>	<b>222</b>
<b>(oat bran)</b>	<b>1 med</b>	<b>424</b>
(plain)	1 med	88
(corn)	1 med	192
Spaghetti	1 cup cooked	76







## Combination Foods & Others

Food Item	Amount	Mg Phosphorus
Alcoholic beverage, beer	12 fl oz	43
Beef Stew, canned	1 cup	128
Candy Bar, (chocolate)	1 bar	95
Carbonated beverages:		
(coola)	12 fl oz	44
(club soda)	12 fl oz	0
(root beer)	12 fl oz	0
(pepper-type)	12 fl oz	40
Cheese Sauce, canned	¼ cup	99
Chicken Pot Pie	1 sm pie	119
Chili Con Carne w/ Beans	1 cup	193
Cocoa mix <b>(made w/milk)</b>	<b>1 cup</b>	<b>255</b>
(made w/water)	1 cup	89
Coffee/Tea	1 cup	5 or less
Gelatin desserts	½ cup	30
Granola bar, plain, soft	1 bar	62
Gravy, beef/chicken	¼ cup	17
Honey	1 Tbsp	1
Hot Dog on Bun, beef	1 med	110
Jelly/Jam	1 Tbsp	1
<b>Macaroni &amp; Cheese (mix)</b>	<b>1 cup</b>	<b>400</b>
<b>(homemade)</b>	<b>1 cup</b>	<b>322</b>
Mustard/Catsup	1 pkt	5 or less
Nuts		
(almonds)	1 oz/24 nuts	134
(cashews)	1 oz/18 nuts	151
(macadamia)	1 oz/10-12 nuts	56
(mixed)	1 oz	132
(peanuts)	1 oz/28 nuts	101
(pecans)	1 oz/20 halves	79
(walnuts)	1 oz/14 halves	98
Oil, any kind	any amount	0
Pastry		
(fruit danish)	1 danish	63
(cake doughnut)	1 med	126
(yeast doughnut)	1 med	56
Peanut Butter	1 Tbsp	55



## Combination Foods & Others

Food Item	Amount		Mg Phosphorus
Pies (homemade apple)	1/8 pie		43
(homemade cherry)	1/8 pie		54
(pumpkin)	1/8 pie		152
(lemon meringue)	1/8 pie		53
(pecan)	1/8 pie		115
Potato Salad	1/2 cup		75
Potatoes Au Gratin	1/2 cup		138
<b>Processed Meat:</b>			
(bologna)	2 slices		52
(ham, lean)	2 slices		124
(salami)	2 slices		65
<b>Pudding, instant</b>			
(chocolate)	1/2 cup		<b>350</b>
(vanilla)	1/2 cup		<b>279</b>
<b>Pudding, homemade</b>			
(chocolate)	1/2 cup		136
(vanilla)	1/2 cup		116
<b>Refried Beans, canned</b>	<b>1 cup</b>		<b>217</b>
<b>Salad Dressings</b>			
	1 Tbsp		5 or less
<b>Snacks</b>			
(popcorn)	1 cup		24
(potato chips)	1 oz		45
(pretzels)	10 pretzels		68
(nacho chips)	1 oz		69
<b>Soup, canned, ready to eat</b>			
(bean w/ham)	1 cup		143
(beef noodle)	1 cup		46
(chicken noodle)	1 cup		72
(clam chowder/milk)	1 cup		156
(creamed chicken/milk)	1 cup		151
(tomato/milk)	1 cup		149
<b>Syrup (corn/maple)</b>			
	1 Tbsp		<5
(chocolate)	1 Tbsp		26
Pasta, canned, w/meat	1 cup		116
Toaster Pastries, fruit	1 pastry		58
Tofu, firm	1/4 block		119
Trail Mix, nuts, choc chips	1/2 cup		282



## Fast Foods

Food Item	Amount	Mg Phosphorus
Burrito, bean & cheese	1 med	90
Cheeseburger/condiments	1 med	176
Hamburger/condiments	1 med	114
<b>Chicken Filet, breaded</b>	<b>1 med</b>	<b>233</b>
Chili dog	1 med	192
<b>Croissant, egg, cheese, bacon</b>	<b>1 med</b>	<b>276</b>
Enchilada, w/cheese	1 med	134
<b>Fish Filet, tartar sauce/cheese</b>	<b>1 med</b>	<b>311</b>
French Fried Potatoes	1 med	173
<b>Nachos w/Cheese</b>	<b>6-8 nachos</b>	<b>276</b>
Onion Rings	8-9 rings	86
Pies, fruit, fried	1 pie	55
Pizza (cheese)	1 slice	113
(pepperoni)	1 slice	75
(meat/vegetable)	1 slice	131
<b>Shake, chocolate/vanilla</b>	<b>16 fl oz</b>	<b>340</b>
<b>Sub sandwich, cold cuts</b>	<b>6"</b>	<b>287</b>
Sub sandwich, roast beef	6"	192
<b>Sundae, hot fudge</b>	<b>1 small</b>	<b>228</b>
<b>Taco</b>	<b>1 small</b>	<b>203</b>
Taco Salad	1 ½ cups	143
Tostada, beef/beans/cheese	1 med	173



Primary Resource:

USDA Nutrient Database for Standard Reference: [www.nal.usda.gov](http://www.nal.usda.gov)

Phosphorus values may differ based on portion sizes, production methods and information resources.