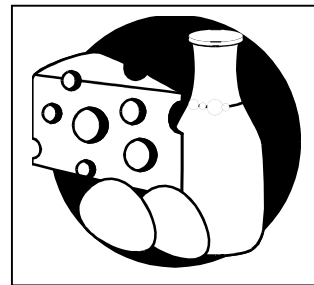


PHOSPHORUS AND CALCIUM



Phosphorus is a mineral used by your body to make bones and teeth, and to use and store energy.

Healthy kidneys get rid of phosphorus in the urine. In kidney failure, the phosphorus level can become too high. Phosphorus is not removed very well in dialysis because it is a big molecule. If it is not treated, you will have the problems caused by a high phosphorus level.

When the phosphorus level in your blood is too high, calcium will be pulled from the bones. This can form a calcium-phosphorus substance in the blood. When this settles in the muscles and body organs, it is called a, “calcium deposit”. It is painful when it is in your feet and harmful in the blood vessels or body organs (which includes the heart).

Each month your phosphorus level will be checked. The level of phosphorus in your blood will help determine if you are eating too many high phosphorus foods and if you need to be on medication to help control the phosphorus level in your blood.

The desired phosphorus level is 3.5 – 5.5.

To keep phosphorus at the correct level, you may need to take a phosphate binder (i.e. Tums, Phoslo, or Renagel) with ALL of your meals and snacks. This will bind much of the phosphorus in foods you eat, and will not allow it to enter your blood. The excess phosphorus will leave your body by way of the digestive system. Each month your calcium level will be checked. With kidney failure the calcium levels tend to run high and supplements are not recommended unless your doctor prescribes it.

The desired calcium level is 8.3 – 9.5.

Bone disease develops over time and occurs faster if your PO₄ and Calcium are high. You may not notice any problems right away, but be aware of the following signs:

- Itching
- Pain in joints and bones
- Abnormal blood values for phosphorus or calcium
- Easily broken bones
- Bony calcium deposits (painless hard or soft lumps) under your skin, in your heart and/or your lungs

There are several things you can do to prevent this from happening:

- Limit the high phosphorus food in you diet
- Take your phosphate binders as prescribed with meals and snacks
- Get enough dialysis—do not cut short your treatment time

Foods which are high in phosphorus include:

Milk and Dairy products (limit to 1 cup/day)

Cheese

Meat, fish, poultry, eggs (You need to eat 6-8 oz of these per day for protein!!)

Nuts

Dried beans

Some vegetables

Whole grains

Chocolate

Beer and Dark Cola drinks

****See the Phosphorus foods list for specific amounts of phosphorus.**

HIGH PHOSPHORUS (>200 mg)

Breads & Cereals

All Bran, 1/3 cup	265 mg
100% bran 3/4 cup	400 mg
Bran flakes 1 cup	300 mg
Waffles, from mix or Frozen	255 mg

Dairy Products-Limit to 1 cup per Day

Buttermilk, 1 cup	220 mg
Chocolate milk, 1 cup	255 mg
Cocoa, 1 cup	270 mg
Parmesan cheese, 1 oz	215 mg
American cheese, 1 oz	215 mg
Cheese spread, 1 oz	215 mg
White Milk, 1 cup	230 mg
Yogurt, 1 cup	270 mg

Miscellaneous

Pizza, 1 slice (med)	200 mg
Pumpkin seeds 1 oz	333 mg
Nuts 1/2 cup	260 mg

MEDIUM PHOSPHORUS (80 – 199 mg)

Beverages

Beer, 12 ozs.	110 mg
Tang, 1 cup	150 mg
Colas, 12 ozs.	90 mg

Breads & Cereals

Cheerios, 1 cup	115 mg
Oatmeal, 1 cup	160 mg
Shredded Wheat, 1 reg	100 mg
Waffles, homemade 1	130 mg

Medium phos foods cont.

Wheat germ, 1 Tbsp	110 mg
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Dairy Products

Cheddar cheese, 1 oz	135 mg
Cottage cheese, 1 oz	170 mg
Frozen yogurt 1/2 cup	100 mg
Ice cream 1/2 cup	80 mg
Mozzarella cheese, 1 oz	105 mg

Meat, Fish, & Poultry (cooked)

Remember, you need 6-8 oz per day!!!

Chicken, 1 oz.	70 mg
Cod, 1 oz	80 mg
Egg, 1	100 mg
Liver, beef, 1 oz	155 mg
Salmon, 1 oz	100 mg
Scallops, 1 oz	95 mg
Turkey, dark meat, 1 oz	115 mg

Vegetables

Lentils, split peas, 1/2 cup	130 mg
Lima beans, 1/2 cup	80 mg
Mushrooms, 1/2 cup	120 mg
Pinto, garbanzo beans 1/2 cup	130 mg

Snacks & Desserts

Custard, 1/2 cup	150 mg
Peanut butter, 2 Tbsp	120 mg
Cream Pie, 1/8 pie	100 mg
Pudding, 1/2 cup	120 mg

LOW PHOSPHORUS

(<80 mg)

Beverages

Alcohol (hard) 3 ozs.	10 mg
Coffee, tea 1 cup	5 mg
Soda pop, 12 ozs	
NOT COLA	50 mg

Breads & Cereals

Crackers, 2	10 mg
Cream of Rice 1 cup	65 mg
Cream of Wheat 1 cup	40 mg
Pancakes, 1 (4-inch)	65 mg
Pasta, ½ cup	45 mg
Puffed Rice, 1 cup	30 mg
Puffed Wheat, 1 cup	30 mg
Special K, 1 cup	30 mg
Sugar Pops, 1 cup	8 mg
White Bread, 1 slice	20 mg
Whole grain breads	50 mg

Dairy Products

Butter, Marg. 1 Tbsp	2 mg
Cream cheese, 1 oz	30 mg
Half & Half, 1 Tbsp	15 mg
Sherbet ½ cup	40 mg
Sour cream, 2 Tbsp	20 mg
Whipping cream 1 Tbsp	10 mg

Fruits

All fruits ½ cup	40 mg
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Meats, Fish, & Poultry

Bacon, 1 strip	20 mg
Beef, 1 oz	60 mg
Clams, oysters, 1 oz	50 mg
Ham, 1 oz	60 mg

Lamb, 1 oz	60 mg
Pork, 1 oz	55 mg
Shrimp, 1 oz	50 mg
(high in potassium)	
Tuna, 1 oz	65 mg
Turkey, white 1 oz	55 mg
White fish, 1 oz	60 mg

Vegetables

Any not previously listed

Snacks and Desserts

Cake, 1 slice	65 mg
Caramels, 2	20 mg
Chocolates, 1 oz	60 mg
Coconut, ½ cup	60 mg
Cookies, plain, 1	10 mg
Corn chips, 1 oz	45 mg
Potato chips, 1 oz	45 mg
Fruit pie, 1/8 pie	35 mg
Marshmallows, 4 reg	4 mg
Popcorn, 1 cup popped	40 mg

Miscellaneous

Jams, Jellies, 1 Tbsp.	2 mg
Sauces, sugars, syrups	5 mg
Shortening, Oils, 1 Tbsp.	0 mg

Dairy Substitutes

Meadow Fresh, ½ cup	60 mg
Mocha Mix, ½ cup	60 mg
Poly Rich, ½ cup	45 mg

= High Phosphorus

= Medium Phosphorus

= Low Phosphorus