

# Phosphorus: Tips for People with Chronic Kidney Disease

## ▶ What is phosphorus?

Phosphorus is a mineral your body uses to store energy, help muscles contract, and support bone health. A normal phosphorus blood level for a healthy individual is 2.5-4.5 mg/dL. Depending on your stage of chronic kidney disease (CKD), you may need to reduce the phosphorus in your diet.



## ▶ Why is phosphorus intake important?

The kidneys are responsible for maintaining healthy levels of minerals like phosphorus in the blood. If you have CKD, phosphorus can build up in your blood, which over time can lead to:

- Itchy skin and bone and joint pain
- Calcium being pulled from your bones, weakening them
- Calcium deposits in your blood vessels and organs, a risk for heart attack or stroke

## ▶ Where is phosphorus found?

Phosphorus is naturally found in high-protein foods. About half of the phosphorus present in these foods is absorbed during digestion. Most people with CKD can eat these in moderation.



### Natural Phosphorus

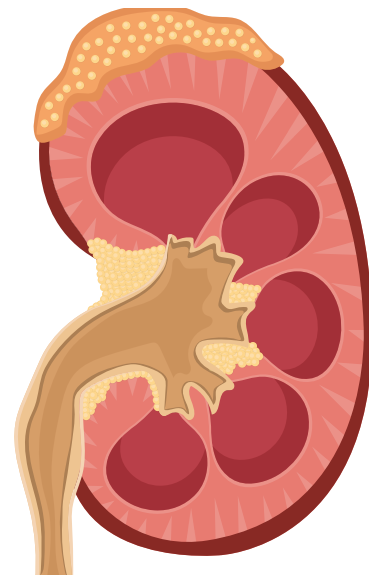
meat	fish	dairy	beans	nuts
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Phosphorus is **added** to many processed foods and drinks as a preservative. Your body absorbs nearly all of the added phosphorus in processed foods.

Foods with the highest amounts phosphorus are most often processed, packaged, and fast foods.

### Added Phosphorus

baking mixes	cereals	cereal bars
sport drinks	colas	chicken nuggets
lunch meat	processed cheese	



## ▶ How do I lower my phosphorus levels?

### ▶ Portion control

- Eat smaller portions of foods high in protein.
- Choose plant-based foods more often since the phosphorus is less easily absorbed.

### ▶ Find hidden sources of phosphorus

Check the ingredients panel for the word “phosphorus” or words that contain “PHOS”.

**INGREDIENTS:** POTATOES, OIL (PARTIALLY HYDROGENATED SOY OIL), SALT, DEXTROSE, DISODIUM **PHOSPHATE**, **PHOSPHORIC ACID**.

### ▶ Choose foods with less phosphorus

Foods <i>lower</i> in phosphorus ↓	Foods <i>higher</i> in phosphorus ↑
<b>Dairy and non-dairy:</b> milk, soy or rice beverage, yogurt, cottage cheese, and cream cheese	<b>Dairy and non-dairy:</b> processed cheese: American or commodity; natural cheese: Swiss, cheddar, and mozzarella
<b>Fresh meat:</b> chicken, turkey, beef, lamb, pork, and moose <b>Legumes:</b> beans, lentils, tofu, and hummus <b>Eggs:</b> whole eggs, egg whites	<b>Processed meat:</b> hotdogs, bacon, ham, sausage, and pizza with meat <b>Seafood:</b> shellfish, salmon, sardines, cod, and tuna <b>Organ meat:</b> liver, kidney, and heart <b>Wild game:</b> venison, bison, and elk
<b>Snacks:</b> popcorn, rice cakes, and rice crispie bar	<b>Snacks:</b> nuts, seeds, peanut butter, and chocolate
<b>Fruits and vegetables:</b> raw or cooked without sauces	<b>Vegetables prepared</b> with sauces Packaged potatoes with “phos” ingredients
<b>Bread:</b> fresh bread and pita bread without “phos” ingredients <b>Plain cereal:</b> cornflakes, puffed rice, and oatmeal <b>Other:</b> corn meal and plain rice	<b>Processed breads and cereals</b> with “phos” additives <b>Other:</b> baking and pancake mixes, biscuits, cakes, and wheat bran
<b>Drinks:</b> fresh brewed coffee and tea, water, light colored soda, root beer, and apple, grape, and cranberry fruit juices	<b>Drinks:</b> bottled coffee, iced tea, dark sodas, beer, wine, energy drinks, sports drinks, and hot cocoa

### ▶ Phosphate binders

Your health care provider may prescribe phosphate binders, which are pills **taken with meals** to help lower the amount of phosphorus your body absorbs.

