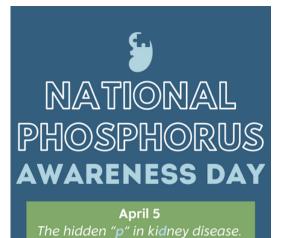
Fact Sheet

AAKP wants you to learn more about "The Hidden 'p' in Kidney Disease."

"P" is the abbreviation for phosphorus. AAKP wants to help individuals affected by kidney disease understand the importance of knowing their phosphorus levels and how high phosphorus (known as hyperphosphatemia) can cause health issues.



What is phosphorus?

Phosphorus is a naturally occurring mineral found in many foods we eat and in all living matter because it is essential for life. Phosphorus, with calcium, is essential to build strong bones and teeth. P is the medical abbreviation for phosphorus.

What is high phosphorus?

Hyperphosphatemia, or high phosphorus, is a condition when serum phosphorus is higher than it should be. A normal serum phosphorus is 2.5 to 4.5 mg/dL. High phosphorus is a level above 4.5 mg/dL. Phosphorus levels can be determined by a blood test.

What can cause kidney patients to have high phosphorus levels?

There are several regulators of phosphorus: the kidneys, bones, and intestines, with the help of hormones such as parathyroid hormone. Other hormones that regulate phosphorus include FGF23, calcitriol, estrogen, and adrenaline. These regulators require healthy kidneys. The most common cause of high phosphorus (hyperphosphatemia) is chronic kidney disease (CKD). Thus, if your kidneys are not working properly, phosphorus can rise to high levels as excess phosphorus is normally removed by the kidneys.

What are symptoms of high phosphorus?

Symptoms of high phosphorus (hyperphosphatemia) are often "silent" and discovered during routine blood work. High phosphorus can affect calcium levels in the bones and blood resulting in hypocalcemia (low calcium) and increased risks of bone and mineral disease, which cause weakened or brittle bones or calcification of soft tissue and blood vessels. Signs and symptoms are often symptoms of hypocalcemia and includes irritability, memory problems, tingling or numbing, abnormal heart rhythm, muscle cramps, dry skin, brittle nails, and/or dry, coarse hair.

What can kidney patients do to lower or manage their phosphorus levels? If an individual develops high phosphorus, will it go away?

High phosphorus can be managed with diet changes, prescription medication, dialysis (depending on the severity of kidney damage), and monitoring by your healthcare team. You and your healthcare team will determine the best course of treatment for you. While it is a balancing act, it can be managed!

Ask your doctor about which medications could be impacting your phosphorus level as well as if medication is needed to help lower or manage your phosphorus level

<u>National Phosphorus Awareness Day is 4.5 - learn more!</u>

#TheHiddenPinKidneyDisease TheHiddenPlnKidneyDisease.org

The AAKP would like to thank Ardelyx for their educational donation to support this year's National Phosphorus Awareness Day campaign.









Fact Sheet

Phosphorus and Food Labels

The Nutrition Facts label provides important information to all consumers. On a special diet, it can help you identify certain nutrients found in your food and how much of that nutrient it contains per serving.

Phosphorus is not listed on the food label, making it difficult to determine if a food or beverage choice is acceptable. One way you can find phosphorus is by looking at the ingredients for "hidden" or added sources of phosphorus. These are considered "inorganic" because they are not naturally occurring in food. Added phosphorus, or phosphate, in foods and beverages is an additive for many reasons: to extend shelf life, enhance flavors, as a stabilizer, and more. Be aware that your body absorbs almost 100 percent of this inorganic phosphorus additive and can cause your serum phosphorus level to increase rapidly. You can find the hidden phosphorus by looking for words that include PHOS.

Searching in the ingredients takes skill and a good eye!

High Phosphorus Foods (Examples): Cooked lentils (1 cup) 356 mg Milk (1 cup) 252 mg Beef roast (3 oz) 190 mg Kielbasa (3 oz) 173 mg Plain low-fat yogurt (1/2 cup) 163 mg Thin crust cheese pizza (1 slice) 148 mg Peanuts (1/4 cup) 137 mg Cheddar cheese (1 oz) 136 ma



Low Phosphorus Foods (Examples) Egg white (1) 5 mg Blueberries (1/2 cup) 9 mgGolden delicious apple (medium) 17 mg Vanilla almond milk (1 cup) 19 mg Orange sherbet (1/2 cup) 30 mg Cream cheese (1 oz) 30 mg Tofu (3 oz soft) 52 mg Pasta (1 cup rotini or penne) 62 ma



Nutrition Facts

| 8 servings per container | |
|--|----------|
| Serving size 2/3 cup | (55g) |
| | |
| Amount per serving Calories 2 | 30 |
| calories Z | <u> </u> |
| % Daily Value* | |
| Total Fat 8g | 10% |
| Saturated Fat 1g | 5% |
| Trans Fat 0g | |
| Cholesterol Omg | 0% |
| Sodium 160mg | 7% |
| Total Carbohydrate 37g | 13% |
| Dietary Fiber 4g | 14% |
| Total Sugars 12g | |
| Includes 10g Added Sugars | 20% |
| Protein 3g | |
| Vitamin D 2mcg | 10% |
| Calcium 260mg | 20% |
| Iron 8mg | 45% |
| Potassium 240mg | 6% |
| * The % Daily Value (DV) tells you how much a a serving of food contributes to a daily diet. 2,0 a day is used for general nutrition advice. | |

Additional Resources:

AAKP's Bone and Mineral Disease Web Page: https://bit.ly/AAKPBoneDisease

AAKP Delicious! Kidney-Friendly Recipes: https://bit.ly/AAKPrecipes

AAKP's List of Phosphorus Foods: https://bit.ly/PhosphorusFoods

Eat Right:

http://www.eatright.org/find-anexpert

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