# Ask the Doctor

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**1. What is the impact of phosphorus on kidney patients?**

For patients with kidney disease on dialysis, they are unable to remove excess phosphorus from the blood. This leads to high phosphorus levels, also known as hyperphosphatemia. Since dialysis does not remove phosphorus, it is important to limit foods high in phosphorus to avoid a build-up in various places in the body. Too much phosphorus results in the following:

**After a kidney transplant, phosphorus levels can drop rapidly, often requiring patients to eat more phosphorus or take supplements to restore balance**

**Bone and heart problems:** Excess phosphorus causes your body to pull calcium out of your bones, making them weak and brittle. Phosphorus can also combine with calcium to result in damaging deposits in the blood vessels, in the heart, eyes, as well as in other organs. This results in significant heart disease, hardening of the arteries, and decreased blood flow to many areas in the body.

**Kidney damage:** High phosphorus levels can directly harm the kidneys and worsen existing kidney disease in patients with chronic kidney disease (CKD).

**Increased risk of death:** High phosphorus levels are an independent risk factor for death due to severe vessel damage.

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**2. What is the impact of phosphorus on transplant patients?**

Once patients receive a new functioning kidney, they now have the ability to clear the phosphorus that has been stored in the body tissues, especially the skin. This may occur very quickly, leading to abnormally low phosphorus levels in the immediate period after the kidney transplant. Patients will often have to eat foods high in phosphorus to keep up with the high level of clearance of phosphorus from the body. This eventually stabilizes but many patients may need phosphorus supplements for a short period after the transplant.