

# Kidneys for Kids

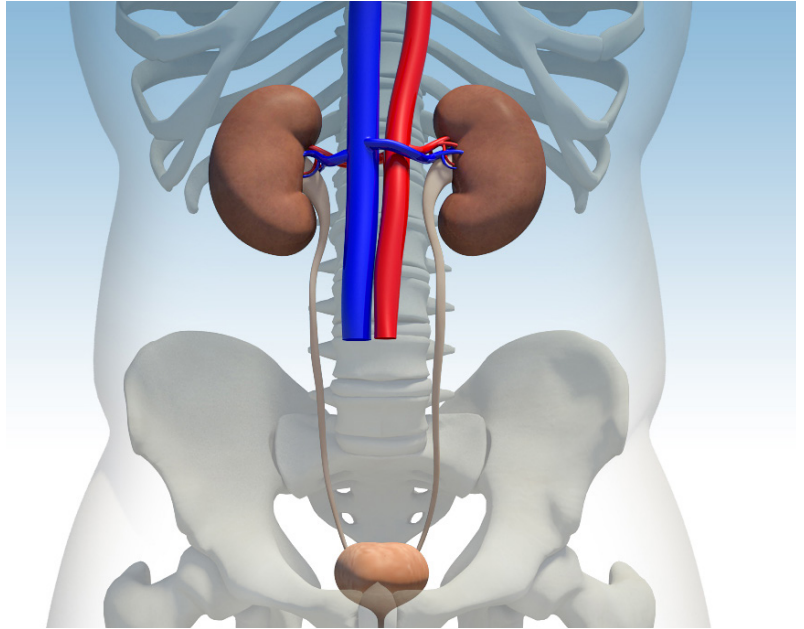
## What are the kidneys and what do they do?

Your kidneys are **organs** shaped like beans (think kidney beans) and are about the size of your fist. They are located in your back, on each side of your spine, protected by the bottom of your ribcage. The kidneys are the organs that clean and filter your blood. Not everything that you eat and drink can be used or stored in your body (some things may even be dangerous), so the kidneys help to clean them away. The water and waste are filtered through the kidneys to make urine (pee).

## How do the kidneys clean the blood and make urine? 😊

Unfiltered blood enters each of your kidneys through blood vessels called **arteries**. Once inside, these blood vessels branch, and become smaller and smaller. Each one of the smaller vessels ends in a **nephron**, which is a mini filter inside the kidney. There, the waste and water in your blood are forced out of the vessel walls, but the blood cells and other good things remain.

The tubules and the small blood vessels around the tubules suck up water and retain anything your body needs. After this, the remaining water and waste have been turned into urine. Urine leaves the kidneys through larger tubes, the **ureters**, to your bladder where it is stored until you feel like going to the restroom.



## What happens when your kidneys get sick? 😞

When your kidneys get sick, the wastes and water may start to accumulate in your body. You may make less urine than normal. Or, you may lose into the urine some of the things that were supposed to be kept back - blood, protein, and other things. Sometimes, your blood pressure may go up.

## What causes kidney problems and what can you do?

There are many different causes of kidney disease, from germs to many other complicated things. Your doctor may have to use different tests on your blood and urine to find out the cause of your problem. Sometimes he will have to take pictures of your kidneys using tests like ultrasound, CT and MRI scans. Other times, he may need to get a small piece of your kidney to be examined - a procedure known as a **renal biopsy**. Your doctor will choose the best treatment for you.