

Living With One Kidney

The kidneys perform many functions that are vital to good health. It is not unusual, however, to have only one kidney to do the work that two kidneys ordinarily do.

Why do people have a single kidney?

Many people are born with a single kidney. This occurs in about one out of 750 people. Being born with a single kidney is more common in males, and the left kidney is the one more often absent. The ureter (the tube that takes urine from the kidney to the bladder) on the affected side is usually abnormal or absent. An abnormality of the reproductive tract may also be seen on the same side. This occurs more often in females than in males.

In other cases, one kidney may need to be surgically removed, leaving a single remaining kidney. A kidney may need to be removed because of an anatomic abnormality such as obstruction, or because of a tumor, or from a severe traumatic injury after an accident. One kidney may be donated to a loved one with kidney failure.

How is a single kidney different?

The single normal kidney will grow faster and get larger than a normally paired kidney. For this reason, the single kidney is larger and heavier than normal, and it is, therefore, more vulnerable to injury. It is important to be aware of the increased risk for injury with certain heavy contact sports, so that careful decisions may be made regarding participation in various physical activities. The American Academy of Pediatrics, American Academy of Family Physicians and the Medical Society of Sports Medicine have suggested that people with one kidney avoid sports that involve higher risks of heavy contact or collision. This includes boxing, field hockey, football, ice hockey, Lacrosse, martial arts, rodeo, soccer and wrestling. Anyone with a single kidney who decides to participate in these sports should be extra careful and wear protective padding. He or she should understand that the consequences of losing a single kidney are very serious.

Are there long-term problems for people with a single kidney?

In general, most people with a single normal kidney have few or no problems, particularly in the first few years. However, some longer-term problems have been recognized. Most doctors believe that people with a single kidney, particularly from birth or during early childhood, should be followed more closely than people with two normal kidneys. Children who have had a kidney surgically removed may have a slightly increased chance of developing abnormal amounts of protein in the urine and some abnormality in kidney function by 25 years later. Similar abnormalities have been found in individuals born with a single kidney. In addition, there is greater chance of developing high blood pressure. The decrease in kidney function is usually mild, and life span is normal.

Are dietary changes needed?

In general, special diets are not needed by individuals who have one healthy kidney. Speak to your doctor or a registered dietitian if you have questions about the basic ingredients of a healthy diet.

How often should someone with one kidney see a doctor?

A urinalysis (urine test) and blood pressure check should be done yearly, and kidney function should be checked every few years, or more often if an abnormal urinalysis or blood pressure is found.

What special precautions are recommended for transplant patients?

Because the transplanted kidney is usually placed into the pelvis, these kidneys are in a location providing less protection and, therefore, are more easily injured. Consequently, the same recommendations of avoiding heavy contact and collision sports apply to the people who have had a kidney transplant.

Careful testing has shown that the transplanted kidney can increase its function as in other situations resulting in a single kidney, reaching a level of function that is about 40 percent greater than a normal level for a single kidney.

What if I have more questions?

If you have more questions, you should speak to your doctor.