Section 2: Risk Factors

Risk factors make it more likely that a disease will develop later. There are some risk factors, like age or family history, that you cannot control. But you *can* control other risk factors, and perhaps slow down or even prevent some diseases. For instance, controlling blood pressure and your blood sugar may help your kidneys work longer.

First, know your risk factors for chronic kidney disease (CKD). Then, work with you doctor to prevent or delay kidney failure.

Kidney Risk Factors You Can Change

- ***Diabetes***
  Almost 40% of new dialysis patients have diabetes, making it the fastest growing risk factor for kidney disease. *Type 2 diabetes is the number one cause of kidney failure, responsible for more than one of every three new cases.*

  What you can do
  Kidney disease does not have to happen to people with diabetes—good blood pressure and blood sugar control can help prevent it. Tight control can have big payoffs in reducing the risk for kidney disease.

Type 1 and Type 2 Diabetes

The most common forms of diabetes are now called type 1 and type 2. Type 1 diabetes is failure of the pancreas to make insulin. Type 1 usually occurs in children and/or young people, and insulin injections are needed to treat it. About one in 10 diabetics have type 1. Type 2 diabetes is a condition where the body develops resistance to its own insulin. It usually occurs in adults, and is related to obesity and lack of exercise. Pills and sometimes insulin are used to treat it. Type 2 diabetes accounts for about 90% of all diabetes.

- ***High blood pressure (Hypertension)***
  High blood pressure puts more stress on blood vessels throughout the body, including the kidney filters (nephrons). Hypertension is the number two cause of kidney failure. Normal blood pressure is less than 130/85—and this is the target for people who have diabetes, heart disease, or CKD. Weight control, exercise, and medications can control blood pressure—and perhaps prevent or slow the progression from kidney disease to kidney failure.

  What you can do
  Blood pressure pills must be taken as prescribed to work properly. If you can't afford to buy your blood pressure pills or have side effects, tell your doctor so he or she can suggest other options for you. Certain classes of blood pressure medications, such as ACE-inhibitors, angiotensin receptor blocks (ARBs), or beta blockers, may help protect the kidneys in some cases.

Section 2: Risk Factors *cont.*

- ***Blockages***
  Scarring from infections or a malformed lower urinary tract system (birth defect) can force urine to back up into the kidney and damage it. Blood clots or plaques of cholesterol that block the kidney's blood vessels can reduce blood flow to the kidney and cause damage. Repeated kidney stones can block the flow of urine from the kidney and are another kind of obstruction that can damage the kidneys.

  What You Can Do
  Sometimes blockages can be repaired or opened to help save function in a blocked kidney and kidney stones can be treated. If you know or suspect that you may have a blockage, ask your doctor what can be done about it.

- ***Overuse of painkillers and allergic reactions to antibiotics***
  Heavy use of painkillers containing ibuprofen (Advil®, Motrin®), naproxen (Aleve®), or acetaminophen (Tylenol®) have been linked to interstitial nephritis, a kidney inflammation that can lead to kidney failure. A new study suggests that ordinary use of painkillers (e.g., one pill per day) is not harmful in men who are not at risk for kidney disease. Allergic reactions to, or side effects of, antibiotics like penicillin and vancomycin may also cause nephritis and kidney damage.

  What You Can Do
  If you routinely take these medications, be sure that your doctor is aware of it—especially if you already have a known kidney problem. When you are taking a new medication, report any new symptoms to your doctor.

- ***Drug abuse***
  Use of certain non-prescription drugs, such as heroin or cocaine, can damage the kidneys, and may lead to kidney failure and the need for dialysis.

  What You Can Do
  If you are using these drugs, know that they can harm your health and seek help to stop taking them. Be honest with your doctor about your medical history—he or she can't help you without knowing the full story.

- ***Inflammation***
  Certain illnesses, like glomerulonephritis (inflammation of the filtering units of the kidneys), can damage the kidneys, sometimes enough to cause CKD. Some glomerulonephritis is inherited, and some may be an immune response to infections like strep throat.

  What You Can Do
  Having a throat culture for bad sore throats, and treating any strep infection, lowers this risk.

Section 2: Risk Factors *cont.*

Kidney Risk Factors You Can't Change—But Should Know About

- ***Family history of kidney disease***
  If you have one or more family members who have CKD, are on dialysis, or have a kidney transplant, you may be at higher risk. One inherited disease, polycystic kidney disease, causes large, fluid-filled cysts that eventually crowd out normal kidney tissue. Diabetes and high blood pressure can also run in families. Be aware of your family history and share it with your doctor. This can ensure that you are screened for risk factors regularly and get the care you need.

- ***Premature birth***
  About one in five very premature infants (less than 32 weeks gestation) may have calcium deposits in parts of the kidney called nephrons. This is termed nephrocacinosis. Sometimes, individuals with this condition may go on to develop kidney problems later in life.

- ***Age***
  Since kidney function is reduced in older people, the older you are, the greater your risk.

- ***Trauma/accident***
  Accidents, injuries, some surgeries, and certain radiocontrast dyes that doctors use to monitor blood flow to your heart and other organs can damage the kidneys or reduce blood flow to the kidneys, causing acute (temporary) kidney failure. Sometimes acute kidney failure will get better, but it may lead to CKD.

- ***Certain diseases***
  Having certain diseases puts people at higher risk for kidney disease. These diseases include systemic lupus erythematosus (a connective tissue disease), sickle cell anemia, cancer, AIDS, hepatitis C, and congestive heart failure.