Kidney Disease and Diabetes

How Your Kidneys Work

Your body has two kidneys that filter waste products and excess water, allowing the rest of your vital organs to function properly and keep you healthy.

Your kidneys help to regulate blood pressure, salt and potassium levels, produce hormones that control red blood cell production and trigger vitamin D to help you absorb calcium to give you strong bones and muscles.

When your kidneys are not able to work as they should, these important body functions aren’t able to do their job. This may lead to chronic kidney disease with potentially serious complications for your overall health. When this occurs, your doctor may recommend regular dialysis treatment to keep you healthy and prevent other future complications.

Symptoms of Kidney Disease

- Fatigue
- Difficulty concentrating
- Difficulty sleeping
- Poor appetite
- Muscle cramping at night
- Swollen feet and ankles
- Puffiness around the eyes
- Dry, itchy or scaly skin
- Frequent urination (mostly at night)

According to the National Kidney Foundation, kidney disease affects more than 20 million Americans. A variety of conditions may cause kidney disease, one of which is diabetes.

Diabetes and Your Kidneys

As you eat throughout the day, sugar enters your bloodstream as part of the normal digestion process. Your body then creates insulin, which moves sugar from the bloodstream into muscle, fat and liver cells to be used as a source of fuel to keep you active and on the move.

Diabetes occurs when you have high levels of sugar in your blood because your body is not able to produce enough insulin. According to the American Diabetes Association, nearly 26 million Americans—more than eight percent of the population—have diabetes.

Over time, diabetes can cause damage to the small blood vessels throughout the body. This also affects the tiny arteries in the kidneys, as well as other organs and tissues. When this happens, your kidneys are not able to work properly and carry out the many functions that keep you healthy.

Diabetes is the leading cause of kidney failure. In fact, over 35 percent of adults with diabetes have chronic kidney disease as well. Controlling your diabetes is one very effective way to reduce your risk of kidney disease.

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Risk factors for diabetes:
- Being of African American or Hispanic descent
- Age
- Obesity
- Family history of diabetes
- Impaired glucose tolerance
- Physical inactivity

Signs that you may be diabetic:
- Protein in the urine
- Leg swelling
- Cramps
- Blurry vision
- Increased urination, especially at night
- High blood pressure
- Nausea and vomiting
- Weakness and fatigue
- Anemia
- Itching

Tips to Prevent Diabetes and Kidney Disease
Although some risk factors for these conditions are out of your control, many can be managed with a proper diet and a healthy lifestyle. Adopting these changes can be the key to good kidney care and better health.

- **Schedule regular physician visits.**
  Make sure to see your family physician regularly to track your blood pressure, heart rate and overall health. A regular physical will include basic bloodwork and a urine test to make sure your vital organs are working well. These tests also show if there are high levels of sugar in the blood or if your kidneys are not healthy. Your physician will also test for other conditions for which you may be at risk.

- **Maintain a heart-healthy diet.**
  Eating healthy provides the proper nutrients and vitamins that your body needs to function normally. This means eating fresh fruits and vegetables, grains and low-fat dairy foods, and reducing the amount of salt in your diet, which has been proven to increase blood pressure and adversely affect kidney functioning.

- **Drink plenty of water.**
  Not drinking enough water can cause kidney damage. Drinking water leads to frequent urination, which enables your kidneys to function normally and properly remove waste from your body.

- **Keep blood sugar under control.**
  High levels of sugar in the blood can cause damage to organs, including the kidneys, notably small blood vessels and arteries that are housed within them. If you have diabetes, you should pay careful attention to sugar levels, especially if you already have kidney problems.

- **Control blood pressure.**
  Keeping your blood pressure below 130/80 is a healthy range to maintain. When blood pressure becomes high, it can damage delicate blood vessels and arteries in the kidneys.

- **Quit smoking.**
  Kicking the smoking habit can lower your risk for many health conditions and issues, one of which is kidney damage.

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• **Monitor use of over-the-counter medications.**
  All over-the-counter medication use should be approved by your family physician. Acetaminophen, aspirin and ibuprofen can cause kidney damage, especially if recommended dosages are exceeded. Also, talk with your physician before adding any new medications.

• **Exercise.**
  At least 30 minutes of moderate exercise several times a week keeps your heart pumping and your muscles active. Walking, cycling, jogging, or swimming are excellent options to support your good health.

• **Limit alcohol.**
  Heavy drinking can damage your kidneys by increasing urine flow and causing the kidneys to conserve fluids. This keeps your kidneys from functioning normally and can lead to kidney disease.

For more information about our program or for a physician referral to one of our kidney care experts, call 443-444-4100.

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**Why Choose Us?**

MedStar Good Samaritan Hospital, the largest, not-for-profit dialysis provider in the state of Maryland, has been designated a 5 Diamond Facility by the Mid-Atlantic Renal Coalition based on our commitment to providing safe, high-quality care and promoting kidney health education and awareness.