

# Diabetes and Kidney Problems

The kidneys remove waste from the body, remove excess fluids, and keep important proteins in the body.

If diabetes is not well controlled, high blood sugar can harm the blood vessels and nerves in the kidneys. It causes kidney damage and this condition is called nephropathy. Without treatment, it can lead to kidney failure.

## Signs of Nephropathy

You will not have signs in the early stages, which is why you need to get regular checks for kidney problems from your doctor. If not controlled, and the condition gets worse, you may have one or more of these signs:

- Feeling tired
- Unusual weight gain from fluid build up in the body
- Foamy urine from protein in urine
- Nausea, vomiting or poor appetite
- Swelling, numbness or tingling in the legs, ankles or feet
- High blood pressure called hypertension
- Feel itchy (from imbalance of phosphorous in the body)
- Hiccups

## Testing

Each year, have your urine checked for protein as part of a physical exam. If protein is found in the urine, it can be a sign of kidney damage. Your doctor may order these tests:

- Blood test:
  - ▶ Hemoglobin A<sub>1</sub>C to see how well glucose levels are controlled.

- ▶ Blood urea nitrogen (BUN test) or creatinine test to check how well your kidneys are working.
- Urine test for protein called albumin. You doctor may also call it a microalbuminuria test.
- Foot checks to check for numbness and tingling in your feet and legs as kidney disease affects blood flow and may cause nerve damage. Nerve conduction tests may be given to check for nerve damage.
- Blood pressure checks.
- Blood tests for cholesterol and triglycerides. These types of fat in your blood are harder to control if the kidneys are not working well.

## **Treatment**

Treatment is done to keep the kidney disease from getting worse. Blood sugar and blood pressure control can slow kidney damage.

- Check and record your blood sugar levels. Take your diabetes medicines as ordered. Talk to your doctor or diabetes educator if your blood sugar levels are not controlled with medicine.
- Exercise for 30 minutes at least most days of the week.
- Avoid tobacco and alcohol, manage your weight, your stress and get enough sleep. Lifestyle behavior can improve your diabetes.
- Talk to your doctor or pharmacist before taking any over the counter medicines. Some medicines may be harmful to weakened kidneys. For example, medicines used for pain called NSAIDS, like ibuprofen or naproxen, should not be used.
- Your doctor may order medicines to lower your blood pressure while protecting your kidneys from damage. Use a home blood pressure monitor to check your blood pressure between doctor visits.
- Follow your meal plan, and talk with a dietitian about changes you can make to control your blood sugar. If your kidneys are not working well, you may need to limit protein in your diet.

As kidney disease progresses, dialysis may be needed. Transplantation may also be an option for treatment.

**Talk to your doctor or diabetes educator if you have questions or concerns.**

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