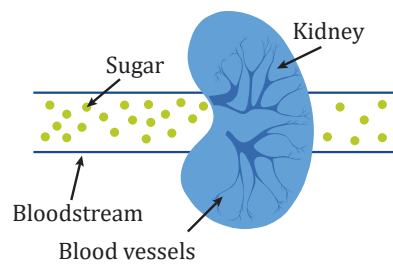


# Diabetes and kidney disease

**Diabetes is the most common cause of kidney disease.**

## Healthy kidney

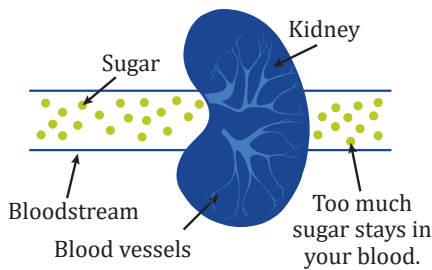


**Diabetes** is a disease that causes your body to have trouble making or using insulin. **Insulin** is a hormone (a chemical your body makes) that helps your body turn the sugar you eat into energy. In a healthy person, insulin controls the amount of sugar in your blood, and keeps the sugar at a healthy level.

## Diabetes and your kidneys

In a person with diabetes, insulin is not used the right way, and too much sugar stays in your blood. Over time, having too much sugar in your blood can damage the small blood vessels in your kidneys and can lead to kidney disease.

## Diabetic kidney



Diabetes can also damage the body's nerves. The nerves in your bladder make you feel like you need to urinate (pee) when your bladder is full. If your nerves are damaged, you might not feel the need to urinate. This can cause urine to build up in the bladder, or stay in the bladder too long, which can lead to kidney damage.

## You are at higher risk for diabetes if you:



Are over 45 years old



Are overweight



Have a family member with diabetes



Are African-American, Hispanic, Native American, or Asian Pacific Islander



Have high blood pressure

If you think you might be at risk, talk to your doctor about getting tested.

## Tests to diagnose diabetes

**Fasting glucose test** - Measures how much glucose (sugar) is in your blood after fasting overnight (not eating or drinking).

Low risk of diabetes

Less than **99**

High risk of diabetes

More than **100**

**Non-fasting glucose test** - Measures how much glucose (sugar) is in your blood about 2 hours after you have had something to eat or drink.

Less than **140**

More than **141**

**A1C blood test** - An A1C test is used to diagnose diabetes or measure how well you are managing your diabetes if you already have it. It measures the average amount of glucose (sugar) that has been in your blood over the last three months.

Less than **5.7%**



Normal

**5.7%-6.4%**



Pre-diabetic

More than **6.5%**



Diabetes



# Diabetes and kidney disease

## Control your diabetes to help prevent kidney disease.



### Control your blood sugar

- Take your medicine exactly the way your doctor told you to.
- If you have diabetes, check your blood sugar often to know your levels. When you have diabetes, your blood sugar should be:

**70-130** Before eating      less than **180** 2 hours after eating      **90-150** at bedtime

- Visit your doctor regularly, and have an A1C blood test at least two times a year. Aim to have an A1C of 7% or less if you have diabetes.



### Work with your health care team

- Visit your doctor regularly. Tell them if your blood sugar is often too high or too low.
- Meet with a diabetes educator. A diabetes educator is a health care professional who can teach you how to manage your diabetes.
- Meet with a dietitian. A dietitian can help you make a healthy eating plan that works for you and your family.



### Follow a diabetic diet

- Keep a low-salt, low-sugar diet. Limit unhealthy fats. Eat less than 13mg saturated fat per day and avoid trans fats (found on a nutrition label).
- Eat nutrient-rich foods like fruits, vegetables and whole grains. Choose foods that are high in fiber. Drink water instead of juice or soda.
- Practice portion control. Fill half your plate with fruits and vegetables, one quarter with lean protein (like chicken breast or fish) and one quarter with whole grains.



### Exercise most days of the week

- Set a goal to exercise for 30 minutes a day, 5 days per week.
- Be creative! Try walking, dancing or playing a sport.



### Keep a healthy weight

- Talk to your doctor about how much you should weigh.
- Even losing just a few pounds can make a big difference for your health.



### Do not smoke or use tobacco

- Get advice from your doctor about how to quit.
- Smoking can make diabetes and kidney disease worse.

**For more information about the connection between diabetes and kidney disease, visit:**  
[KidneyFund.org/diabetes](http://KidneyFund.org/diabetes)