

Complications from Diabetes

How to recognize and prevent problems

This handout explains common complications that can occur when you have diabetes.

There are many possible long-term health problems linked to diabetes. A person with diabetes has a higher risk of having:

- High blood pressure
- Heart attack
- Stroke
- Eye problems
- Kidney disease
- Amputation of a foot or lower leg
- Infections
- Sexual problems

Most of the health problems linked to diabetes are caused by:

- Damage to small and large blood vessels
- Damage to nerves
- A lower ability to fight infections

Many of these problems can be delayed or prevented by taking good care of your health.



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What You Can Do

It may be overwhelming to think about your risk for these serious problems. But, when you learn about possible problems, you can also learn about prevention. It is easier to cope with your fears when you know what you can do to prevent problems, what early signs to watch for, and how problems can be treated.

Blood Vessel Problems

Diabetes can weaken the small blood vessels that carry blood through your body. The small blood vessels in your eyes, kidneys, nerves, fingers, and toes are most easily harmed.

These weakened blood vessels may break and affect the blood flow to your skin, feet, and other parts of your body. High blood glucose is more likely to weaken these blood vessels if your blood pressure is also high.

Eye Problems

Some eye problems do not have symptoms in their early stages. This is why it is important to have a full eye exam every year, even if you do not have any symptoms. If problems are caught early, they can usually be treated.

A full eye exam will show if there is any damage to your eyes. For this exam, the eye doctor will put drops in your eyes to make your pupils *dilate* (open wide). The doctor can then check the small blood vessels in the back of your eye (the *retina*). Damage to this area is called *retinopathy*. Keep both your diabetes and your blood pressure in control to help protect your eyes from retinopathy.

What to Watch for

See your eye healthcare provider **right away** if you have:

- Loss of vision
- Sudden onset of “floaters” (seeing spots that look like they are moving around)
- A “shade” or “curtain” across your visual field
- Eye pain or infection

Kidney Problems

The kidneys filter your blood and dispose of your body's waste products through your urine. The filtering parts of the kidneys are called *nephrons*. The nephrons have many small blood vessels that can be damaged by high blood glucose and high blood pressure. This kind of kidney damage, called *nephropathy*, does not have symptoms in its early stages.

Since there are no early symptoms, *renal* (kidney) screening tests need to be done once a year. This involves testing your blood and urine. The tests measure the amount of protein in your urine and the amount of waste products in your blood. If your kidneys are damaged, they allow things that should stay in your body (like protein) to leave through your urine. If the damage continues, your kidneys may fail.

You need your kidneys to work well. If your kidneys fail, you will need to have a procedure called *dialysis* to remove waste products from your blood every few days. A kidney transplant is another option if your own kidneys fail.

Like eye problems, kidney problems can be greatly reduced by keeping your diabetes and blood pressure in control.

Nerve Problems

Diabetes can damage your nerve cells. When your blood glucose is high, your nerve cells can swell and scar. When this happens, your nerves cannot send messages through your body well. This is called *neuropathy*.

Some nerve damage can cause your feet and lower legs to tingle, feel numb, burn, ache, or throb. At other times, you may have cuts or other sores on your feet and not even feel them.

Neuropathy symptoms can come and go. Many people say that their pain level is lower when their blood glucose is near the normal range.

Another type of nerve damage, called *autonomic neuropathy*, can affect your internal organs. If neuropathy affects your digestive system, your stomach could empty very slowly, or you could have unexpected constipation or diarrhea.

Neuropathy can also affect your heart and circulation. Your heart might beat too rapidly, or your blood pressure might drop too low when you are changing positions.

Nerve damage can also affect your sexual health. Men may have problems having and keeping an erection. Women may have problems with arousal or orgasm. Tell your healthcare provider if you have these problems. There are treatments that may help.

Like other long-term problems, you can prevent or delay nerve damage by keeping your diabetes in control.

Preventing Complications

There is no way to know for sure who will have long-term problems from diabetes. Some people develop several problems, some develop only one, and still others never develop any.

Studies show that if a person keeps good control of their diabetes over the years, their risk for eye, kidney, and nerve problems is much lower. You can lower risk even more by:

- Keeping high blood pressure under control.
- Lowering your blood fat levels.
- Not smoking. If you do smoke, QUIT. Ask your provider about resources to help you stop smoking.
- Having yearly exams to catch problems early.

And, remember to:

- Have your blood pressure checked often.
- Have your blood fat levels checked yearly.

- Have your eyes and kidneys checked yearly.
- Check your skin and feet every day.
- If you are pregnant or plan to become pregnant, see your doctor right away.
- Manage your stress well.
- Learn as much as you can about preventing the long-term problems linked to diabetes.

Goals

What are your goals for lowering your risks for problems?

For your eyes?

For your kidneys?

For your nerves?

Other goals?

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Endocrine and Diabetes Care Center: 206.598.4882

UW Medicine Neighborhood Clinics: 206.520.5000

Screening Tests and Yearly Exams

- Find out when you had your last screening tests for your eyes, kidneys, blood fats, and nerves.
- Yearly exams help you and your diabetes care team manage your diabetes. These exams help find problems early so that you can take care of them before they get bigger.
- Set a date for your yearly exam that is easy to remember, such as an anniversary date or your birthday.