

# Infection Prevention and You



## Diabetes, infections, and you

### What is diabetes?

Diabetes is a chronic disease in which blood glucose (a type of sugar) levels are above normal levels. In people who have diabetes, the pancreas either doesn't make enough insulin (a hormone that helps glucose get the cells of our bodies), or it doesn't use insulin as well as it should. This can cause sugar to build up in the blood and lead to serious health complications like blindness, heart disease, kidney failure, and lower-extremity amputations.

Most cases of diabetes fall into two broad categories:

#### Type 1 diabetes

In type 1 diabetes, the body does not produce insulin. The body breaks down the sugars and starches you eat into a simple sugar called glucose, which it uses for energy. Insulin is a hormone that the body needs to get glucose from the bloodstream into the cells of the body.

#### Type 2 diabetes

Type 2 diabetes is the most common form of diabetes. If you have type 2 diabetes, your body does not use insulin properly. This is called insulin resistance. At first, your pancreas makes extra insulin to make up for it. But, over time it isn't able to keep up and can't make enough insulin to keep your blood glucose at normal levels.

### Why are people with diabetes more prone to infections?

High blood sugar levels can weaken a person's immune system defenses. People who have had diabetes for a long time may have peripheral nerve damage and reduced blood flow to their extremities, which increases the chance for infection. The high sugar levels in your blood and tissues allow bacteria to grow and allow infections to develop more quickly.

### What are common infections for people with diabetes?

The most common infections in people with diabetes include:

- **Ear, nose, and throat infections:** Fungal infections of the nose and throat are seen almost exclusively in patients with diabetes. Symptoms include severe ear pain and ear discharge.
- **Urinary tract infections (UTIs):** Uncontrolled diabetes is one of the major causes for UTIs. These UTIs are commonly caused by germs such as *Escherichia coli*, *Klebsiella*, *Enterococcus*, and *Candida*. Kidney infections and inflammation of the bladder are also common.
- **Skin and soft tissue infections:** People with diabetes are at risk for infections and wounds in the leg (also called diabetic foot). Repeated trauma and poor footwear can lead to these infections. If these infections aren't treated promptly and properly, it can result in the need to amputate.

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## How can people with diabetes prevent infection?

- 1) Make sure your blood sugar levels are well controlled. This can be achieved by exercising regularly, making healthy food choices, and following your healthcare provider's recommendations for routine blood glucose testing.
- 2) Take medicines exactly as prescribed by your healthcare provider.
- 3) Maintain good personal hygiene. [Wash your hands frequently](#), especially after using the bathroom; after sneezing, blowing your nose, or coughing; before eating; when visiting someone who is sick; or whenever your hands are dirty.
- 4) [Never share your insulin pen](#). These are meant for only one person. Before your healthcare provider uses an insulin pen on you, ask if you are the first patient to use that particular pen.
- 5) [Get your flu vaccine each year](#) and stay up to date on all vaccinations.
- 6) Wear good, soft, and covered footwear. Wear clean socks daily. People who have diabetes should examine their feet on a daily basis.
- 7) Seek early medical care if you are injured or ill.

## Additional resources

CDC—Managing diabetes <http://www.cdc.gov/diabetes/managing/index.html>

CDC—Basics of diabetes <http://www.cdc.gov/diabetes/basics/index.html>

One and Only Campaign—One insulin pen, only one person

[http://www.oneandonlycampaign.org/sites/default/files/upload/image/SIPC\\_Brochure\\_InsulinPen\\_FINAL.pdf](http://www.oneandonlycampaign.org/sites/default/files/upload/image/SIPC_Brochure_InsulinPen_FINAL.pdf)

American Diabetes Association—Diabetes basics <http://www.diabetes.org/diabetes-basics/>

Medscape—Infections in patients with diabetes <http://emedicine.medscape.com/article/2122072-overview>

APIC Infection Prevention and You—Ask about vaccines <http://consumers.site.apic.org/infection-prevention-basics/ask-about-vaccines/>

APIC Infection Prevention and You—Clean your hands often <http://consumers.site.apic.org/infection-prevention-basics/wash-your-hands-often/>

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