

# Warning! Warning!

If your blood sugar isn't in check,  
you're putting your entire body in danger

**A** high blood sugar level is a serious problem for people with diabetes. But glucose isn't always the villain it's made out to be. In fact, the molecule found in starches and sugars is essential to a healthy life because its energy helps to replenish the entire body. "Every cell needs to be opened up and fed a form of glucose," says David G. Marrero, PhD, the president of healthcare and education for the American Diabetes Association.

That process can't happen without **insulin**, a hormone that acts as the "key" to opening those cells. Someone with diabetes has trouble producing or responding to insulin, which means without treatment there's a strong risk that glucose will linger and build up in the bloodstream, possibly wreaking havoc as it pulses throughout the body.

"Imagine you could never filter the oil in your car, and instead of changing it, you just kept adding more," Marrero says. "Soon it's going to find its way into the engine and cause chaos."

Here, we break down the parts of the body that are most susceptible to being bullied by high blood sugar, along with tips from the American Diabetes Association on how to ensure your body stays as healthy as possible. But make sure you stay in touch with your healthcare providers, especially if conditions become aggravated.



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## AT RISK

### THE NERVES

A buildup of glucose can cause nerves to misfire. "The body loses the ability to transmit signals to the brain correctly," Marrero says. Such **neuropathy** can lead to tingly or painful limbs—or even the loss of all sensation. Just imagine the damage if someone with severe neuropathy stepped on a piece of glass or a sharp pebble and was unaware of the injury.

## ACT NOW

Examine your feet frequently for cuts or injuries, says Marrero. At least once a year have a complete foot exam, which includes a look at the muscles, bones and blood flow.



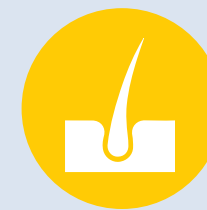
## AT RISK

### THE KIDNEYS

Every day, your kidneys filter **30 to 50 gallons of blood**, sending toxins and waste materials packing. "With an increased level of glucose, the kidneys take a pounding," says Marrero, comparing them to overtaxed furnace filters that eventually clog and block airflow. "Eventually, the capability to feed the kidneys oxygen and energy is diminished—and if that persists, they stop working." At that point, the only options are dialysis or a kidney transplant.

## ACT NOW

High blood pressure can have a dramatic effect on the progress of kidney disease. Get regular exercise, lose any extra weight, avoid alcohol and tobacco, and eat less salt.



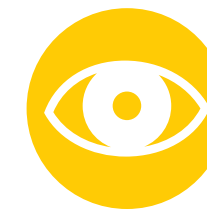
## AT RISK

### THE SKIN

High glucose levels make the blood thicker, which means it's harder for the circulatory system to pump nutrients to peripheral parts of the body, such as **fingers and toes**, leaving them dry. "Dry skin is more prone to cracking and injury," Marrero says.

## ACT NOW

Limit how often you bathe, especially in low-humidity climates. Use mild soap, and apply a hydrating cream after bathing to replace lost moisture.



## AT RISK

### THE EYES

People with diabetes often develop eye problems. "The little vessels carrying blood to your eyes can become impaired," Marrero says. This can lead to decreased blood flow and damage to the retina. People with diabetes are also more likely to get **glaucoma and cataracts**.

## ACT NOW

Have a dilated eye exam with an optometrist or ophthalmologist at least once a year. •

## ASK AWAY!

Are you trying to find local diabetes resources, or looking for more information? The American Diabetes Association's online chat service lets you talk instant-message style to an ADA representative from 8:30 a.m. to 8 p.m. Eastern time weekdays. Go to [diabetes.org](https://diabetes.org) and click "Chat Online."

