[Glucose](http://kidshealth.org/en/kids/word-glucose.html), or sugar, is the body's main fuel source. That means your body — including your brain — needs glucose to work properly. But even though we need glucose for energy, too much glucose in the blood can be unhealthy.

**What Is Hyperglycemia?**

**Hyperglycemia** (say: hi-per-gly-SEE-me-uh) is the medical word for high blood sugar levels. The hormone [insulin](http://kidshealth.org/en/kids/word-insulin.html) is supposed to control the level of glucose in the blood. But someone with diabetes doesn't make enough insulin — or the insulin doesn't work properly — so too much sugar can get into the blood and make the person sick.

If you have high blood sugar levels, you may need treatment to lower your blood sugar. Your parents and your [diabetes health care team](http://kidshealth.org/en/kids/diabetes-team.html) will tell you what your blood sugar levels should be and what to do if they get too high.

**Managing diabetes is like a three-way balancing act because you have to watch:**

1. the [medicines](http://kidshealth.org/en/kids/medicines-diabetes.html) you take (insulin or pills)
2. the food that you [eat](http://kidshealth.org/en/kids/meal-plans-diabetes.html)
3. the amount of [exercise](http://kidshealth.org/en/kids/sports-diabetes.html) you get

All three need to be balanced. If any one of these is off, blood sugar levels can be, too. Your parents and doctor can help you with this balancing act.

**The Causes of High Blood Sugar**

In general, higher than normal blood glucose levels can be caused by:

* not taking your diabetes medicine when you're supposed to or not taking the right amounts
* eating more food than your meal plan allows (without adjusting your insulin or diabetes pills)
* not getting enough exercise
* [having an illness](http://kidshealth.org/en/kids/diabetes-sick.html), like the flu
* taking other kinds of medicines that affect how your diabetes medicines work

Keeping blood sugar levels close to normal can be hard sometimes, and nobody's perfect. Grown-ups can help you stay in balance if you have diabetes. Sometimes blood sugar levels can be high because you're growing and your doctor needs to make some changes in your diabetes treatment plan.

**Signs That Blood Sugar Levels Are High**

People with high blood sugar may:

* **pee a lot.** When blood sugar levels get too high, the kidneys flush out the extra glucose into your urine (pee), which is why people who have high blood sugar levels need to pee more often and in larger amounts.
* **drink a lot.** Because you're losing so much fluid from peeing so much, you can get very thirsty.
* **lose weight.** If there isn't enough insulin to help the body use glucose, the body starts to break down your muscle and fat for energy — and you lose weight.
* **feel tired.** Because the body can't use glucose for energy properly, you may feel really tired.

High blood sugar levels don't always cause these symptoms. Sometimes you can have high blood sugar levels without even knowing it. But if left untreated, they can cause serious health problems. That's why it's important to work with your parents and diabetes team to keep your blood sugar levels in a healthy range. This can mean checking your blood sugar levels a few times a day, even when you feel fine.

**How Are High Blood Sugar Levels Treated?**

To treat high blood sugar, it helps to know what is causing it. You might need to take more insulin or diabetes pills because you're growing and eating more food, or you might need to get more exercise each day.

Having high blood sugar levels every once in a while isn't a big deal. It happens to everyone with diabetes from time to time. But if your blood sugar levels are high a lot, your diabetes health care team will have to help you figure out how to get them back to a healthy level.

**What Is Diabetic Ketoacidosis (DKA)?**

Someone who has high blood sugar can develop a serious problem with a serious-sounding name: **diabetic ketoacidosis** (say: kee-toh-ah-sih-DOH-sis). This happens if the body gets desperate for a source of fuel. The body wants to use glucose (sugar). But without insulin, that glucose stays stuck in the blood — and isn't available to the cells — so the body uses fat instead.

But that can sometimes cause problems. Why? Because when the body uses fat, chemicals called [ketones](http://kidshealth.org/en/kids/word-ketones.html) (say: KEE-tones) are produced. These ketones get into a person's blood and urine (pee) and they can make a person very sick. DKA is a very serious problem for people with diabetes, but the good news is that it can be prevented and treated.

**Symptoms of DKA**

The symptoms of DKA usually don't develop all at once — they usually come on slowly over several hours. Be sure to tell a parent or another adult if you have these symptoms of high blood sugar, which usually happen before a person develops DKA:

* You're really tired.
* You're really thirsty or peeing way more than usual.
* You have a very dry mouth.

If the person doesn't get treatment to help get their blood sugar levels down to where they should be, he or she may go on to get the following symptoms of DKA and could even pass out:

* belly pain
* nausea or throwing up
* fruity-smelling breath
* trouble breathing
* confusion

Sometimes DKA can feel like the flu or another illness, so your parent or another adult will check you for ketones to see if you might have DKA. Checking for ketones is easy — you can test some of your urine (pee) – or sometimes your blood - to see if your ketones are too high.

**How Is DKA Treated?**

DKA can be treated but you must go the doctor or hospital right away. To feel better, a person with DKA needs to get insulin and fluids through a tube that goes into a vein in the body.

**Can High Levels and DKA Be Prevented?**

These two problems don't sound like much fun, so you're probably wondering how to prevent them. The solution is to keep your blood sugar levels as close to normal as possible, which means following your diabetes management plan. Checking your blood sugar levels several times a day will let you and your parents know when your blood sugar level is high. Then you can treat it and help prevent DKA from happening.

What else can you do? Wear a medical identification bracelet that says you have diabetes. Then, if you are not feeling well, whoever's helping you — even if the person doesn't know you — will know to call for medical help. And the doctors will be able to get you better more quickly if they know you have diabetes. These bracelets also can include your doctor's phone number or a parent's phone number. The quicker you get the help you need, the sooner you'll be feeling better!

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