How to Lower Morning Blood-Sugar Highs

By Rosemary Black

Demystify the "dawn phenomenon" and prevent elevated blood sugar when you wake up.

It's disconcerting to say the least. You go to bed with a normal blood sugar, eat what you're supposed to eat, and follow your doctor's instructions for insulin dosage to the letter. Yet the next morning, you wake up with an elevated blood sugar. What's going on, and how can you prevent it?

First off, don't automatically blame yourself if you wake up with a high blood sugar, says Matthew Freeby, MD, of the Naomi Berrie Diabetes Center at NewYork-Presbyterian Hospital/Columbia Medical Center in New York City. Some of the problem has to do with hormones and is not in your control.

"Certain hormones, like cortisol, are released in the very early morning to rev up our bodies for the day," he explains. "These hormones increase production of glucose in the liver."

The liver, sensing that it's time to get ready to start the day, starts pumping out sugar at around 3am, says Spyros Mezitis, MD, of Lenox Hill Hospital in New York City. This can lead to frustrating blood sugar highs in the morning, a condition known as the dawn phenomenon.

The dawn phenomenon, Freeby says, is different from the Somogyi effect, also called "rebound hyperglycemia," which can be the result of overmedicating. "Overmedicating can cause a low blood sugar that results in overproducing hormones to correct the low blood sugar," he says. "And that causes a rebound in which the blood sugar goes high."

It's important to distinguish between the dawn phenomenon and the Somogyi effect, Freeby says.

How to tell the difference? Very often, Freeby has his patients check their blood sugar in the middle of the night. "If they are low in the middle of the night, [morning highs are] more likely to be caused by the Somogyi effect," he said.

Tips for preventing morning hyperglycemia:

Review the nighttime snack, Freeby recommends. A higher-carbohydrate snack can contribute to experiencing the dawn phenomenon.
Look at what kind of **exercise** you're getting--and get plenty. "That will decrease the body's response to the hormones, and the sugar may not be as high in the morning," he says.
Discuss with your doctor the possibility of **adjusting the overnight insulin dose**. But this should only be done under close medical supervision, since increasing the insulin can also put a diabetic at risk for hypoglycemia. While an adjustment in the long-acting insulin may be appropriate, it also requires very careful monitoring. "You may cause hypoglycemia during the day by just blindly increasing the long-acting insulin," Freeby says.
Consider getting an insulin pump. "With the pump, your doctor can recommend that it be set for a higher basal insulin rate starting at 3 am," Mezitis says. "By giving more insulin at the right time, you may be able to avoid the dawn phenomenon."

Source: Qualityhealth-Managing Diabetes
http://www.qualityhealth.com/featured-article-segment?fa=109613&rf=50518&mc=MjYyNDczMDQ.&ct=36917