



<https://youtu.be/U3jBxK3NypM>

Doctor, my morning fasting blood sugar is always high. Do you have any clues as to why this might be happening?

Transcript:

That early morning jump in your blood sugar?

It's called the dawn phenomenon or the dawn effect. It usually happens between 2 and 8 a.m.

Morning checking on blood sugar on finger pricking and checking up with your glucometer is called the 'Fasting blood sugar.

In most diabetic patients, the reading is above the normal range, and they are very concerned about it. This is due to the the dawn effect or dawn phenomenon. It happens after 2 am and 8 am.

This phenomenon of fasting high blood sugar only in some diabetics can be explained so that it will not be a worry or concern in future.

After all, fasting blood sugar is not that important when you are a full-blown diabetic. Random checking helps more to control your blood sugar levels. The fasting blood sugar level is more important to diagnose diabetes.

So, now let's discuss why the fasting blood sugar is elevated in some diabetics, though the blood sugar level during the day is well controlled.

Most of the machinery, meaning the organs, and repair work in your body, such as hormonal changes, happens during your sleep. So, adequate sleep is essential for this activity.

So, during your sleep, boosting this blood sugar is a normal physiological process, whether you have diabetes or not, because energy from sugar is required for these metabolic processes and raised blood sugar in the early hours is a normal phenomenon.

In the early morning hours, hormones, including cortisol and growth hormone, signal the liver to boost the production of glucose, which provides energy that helps you wake up. This triggers beta cells in the pancreas to release insulin to keep blood glucose levels in check.

If you are not a diabetic, the pancreas will shoot out insulin to balance everything, and your morning fasting blood sugar will be within the normal range.

The expected fasting blood glucose concentration values are between 70 mg/dL (3.9 mmol/L) and 100 mg/dL (5.6 mmol/L).

When fasting blood glucose is between 100 and 125 mg/dL (5.6 to 6.9 mmol/L), changes in lifestyle and monitoring glycemia are recommended.

So, if you are a non-diabetic, your fasting blood sugar is always within the normal range, but if you are a diabetic, it's different. Since your body doesn't respond to insulin the same as most, your fasting blood sugar reading can increase, even if you follow a strict diet.

The boost in sugar is your body's way of ensuring you have enough energy to get up and start the day. If you have diabetes, your body may not have enough insulin to counteract these hormones and the fasting blood sugar will be high. That disrupts the delicate balance you work so hard to keep, and your sugar readings can be too high by morning.

Of course, this dawn effect on your fasting blood sugar may not be the same daily. Somedays, you may be lucky to have an average fasting blood sugar level.

This effect varies from person to person. Two persons in the same house eating the same food have diabetes; one may have a regular reading, and the other may not.

Some researchers believe the natural overnight release of counter-regulatory hormones, like growth hormones, cortisol, glucagon and epinephrine strengthens your insulin resistance.

This will make your blood sugar go up.

In addition to this night phenomenon, other factors may influence a high dawn blood sugar reading.

You may have had a very high-carb diet the previous night.

You may not have taken sufficient insulin. Of course, those on antidiabetic tablets may not be able to adjust the dose as when you are on insulin.

If you are concerned about this phenomenon, try an early plant-based low-glycemic dinner and a walk afterwards.

It is important to check with your healthcare provider if you need to change your medication. My suggestion is to do an hour of brisk walking in the morning as it can help reduce high blood sugar levels. If your fasting blood sugar is high but your random readings show reasonable control, especially your three-month memory test-HbA1C, there is no need to worry about the dawn effect.

For individuals with diabetes, it is most important to monitor their diet. A plant-based diet is essential due to its low GI content. Processed foods, such as white bread, and traditional foods like hoppers and string hoppers made of white flour should be avoided. It is also important to maintain a healthy weight and exercise daily to improve insulin resistance and sensitivity. I hope this presentation clears up the dawn of high blood sugar levels. Stay safe, stay healthy and goodbye for now.