The Fasting Method.

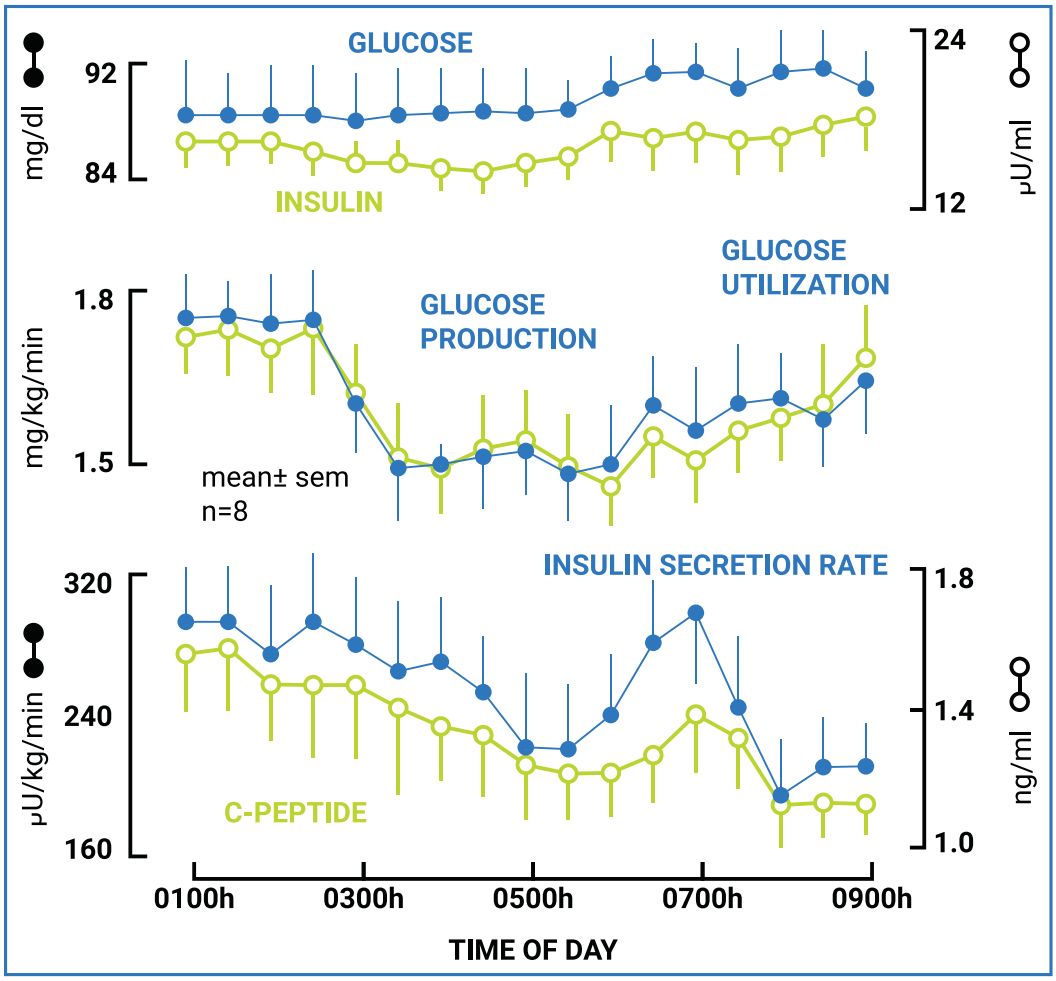
# Dawn Effect

The Dawn Effect is the small rise in blood glucose often noted first thing in the morning. In type 2 diabetic patients, sometimes this increase is not that small. It is also responsible for the increase in blood glucose sometimes seen during fasting. But why would your blood glucose go up if you hadn't eaten anything all night long? The answer lies in our circadian rhythm.

Our body stores food energy as chains of glucose known as glycogen. When we eat, we store glycogen. As we sleep (and fast), our body breaks down glycogen into glucose and releases it for energy. Just before awakening (around 4 am), the body secretes higher levels of growth hormone (GH), cortisol, glucagon and adrenaline. Together, these are called the counter-regulatory hormones. This releases glucose from the glycogen and raises the blood glucose levels in preparation for the day ahead.

In type 2 diabetic patients, the body is so overloaded with glucose that the increased trickle of glucose seen in the Dawn Effect is over exuberant. Instead of a small increase in blood sugars, there is a noticeable increase.

Fasting induces the same increase in counter-regulatory hormones. As our body senses that we are not eating, insulin falls, and the other hormones instruct our body to start using our stores sources of glucose. This is why blood glucose sometimes goes up during fasting.




DIABETES 1984; 33:1150-53

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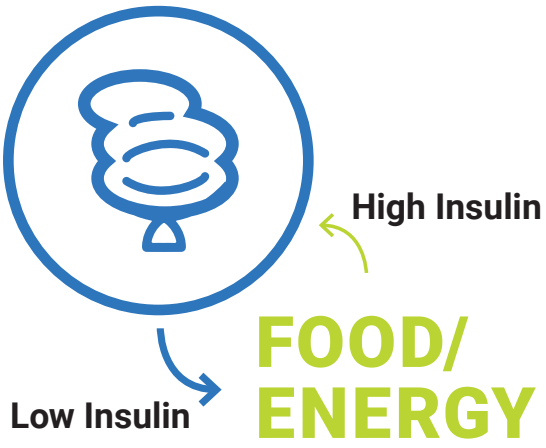
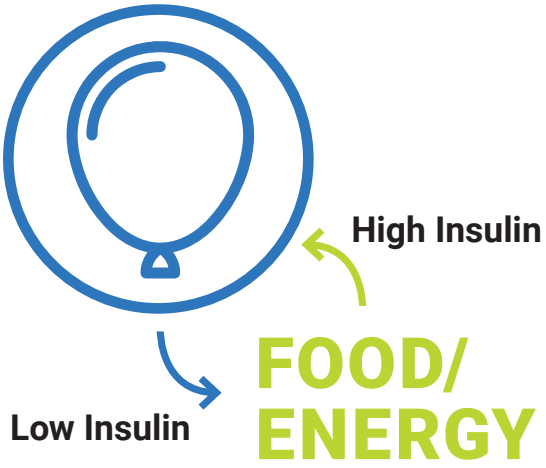
## LIVER CELLS




## INSULIN RESISTANCE!




### IS THIS A BAD THING?

No, not at all. We're merely moving the sugar from the liver into the blood. Think about it this way: If you're not eating, where is the sugar coming from? It must come from inside your own body. There is no other alternative. You are simply moving the sugar from storage, out into the blood where you can see it. It is neither good nor bad.

The Dawn Effect, whether due to the time of day (morning) or fasting does not mean you're doing anything wrong. It's a normal occurrence. It just means you have more work to do to rid your body of the excess glucose. By itself, it's neither good nor bad. The solution? Simple. Either don't put any more sugar in (Low Carb Diet) and/or burn it off (Fasting). The Dawn Effect is one of the last signs of your type 2 diabetes to improve. Keep in mind it takes 10 to 15 years to develop type 2 diabetes. Your morning readings will improve over time. Be patient.

### TIPS

- Eating breakfast first thing in the morning is not necessary because our body has already prepared us for the day ahead by releasing stored sugar.
- Skipping breakfast allows your body to use the sugar that came from the liver.