Melatonin and Diabetes: What's the Connection?
By Rosemary Black

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Melatonin is regarded by many as a sleep aid, something to take on nights when insomnia is keeping them from getting a good night's rest. But did you know the hormone also plays a key role in your body?

"Melatonin is important in regulating your body's clock," says Ronald Goldberg, MD, of the Diabetes Research Institute in Hollywood, Florida. "It works to keep the pancreas working efficiently." This essential hormone that controls your body's sleep-wake cycle doesn't only have to do with snoozing. Released from the pineal gland in the brain, melatonin regulates both seasonal and circadian rhythms. During the night, melatonin levels are high, and they drop lower during the day. (Insulin also has a nocturnal drop in the body, and some experts theorize that insulin levels may be under at least partial control by melatonin.)

A study in 2008 from the Imperial College in London found that in individuals with common variations in the gene for MT2, a receptor for melatonin, there's a slightly higher risk of type 2 diabetes.

Researchers have also discovered that those who work the night shift have a higher incidence of being diagnosed with type 2 diabetes. When volunteers' sleep cycle was repeatedly disrupted for several days, they actually developed temporary symptoms of diabetes, researchers found. "With sleep deprivation, there's definitely an increased risk of diabetes," says Spyros Mezitis, MD, of Lenox Hill Hospital in New York City. "When there is disruption of sleep, and when people are simply getting less sleep, it is a problem." If you'd like one less risk factor for diabetes, getting sufficient sleep is a relatively easy goal to attain. "It's important to be thinking about sleep," Mezitis says.

Wondering whether you should start taking melatonin? Goldberg says it's not necessary.

Instead, focus on practicing good sleep hygiene. For starters, go to bed and get up at the same time every day—even on the weekends. Just these simple steps will help promote good sleep. Still not having a good night of shut-eye? Learn some relaxation techniques. Biofeedback and breathing exercises can help reduce bedtime anxiety. And a treatment known as sleep restriction can also be beneficial. With sleep restriction, the time you spend in bed is decreased. The partial sleep deprivation that results makes you more tired the following night. After your sleep starts to improve, your time in bed is gradually lengthened.

Sources:
