Why You Should Consider Using a Continuous Glucose Monitor

by COLLEEN KELLY

Continuous Glucose Monitors

Hypoglycemia, or low blood sugar, is a commonly occurring consequence of diabetes treatment. Though more common in treatment of type 1 diabetes, as treatment *always* requires insulin, hypoglycemia can occur in those with type 2 diabetes depending on the treatment prescribed.

In one study, a random sample of 267 people with type 1 diabetes were interviewed. Of these 267 people, 94 people had a total of 336 hypoglycemic events, 9 of which were considered severe (requiring emergency treatment) over the past year. The same study evaluated those with type 2 diabetes; 173 people experienced 236 hypoglycemic events, 5 of which were severe.

That is a lot of low blood sugar.

Continuous glucose monitoring (CGM) is a life-changing monitoring tool that can prevent low blood sugar – and hyperglycemia (high blood sugar).

What Is Continuous Glucose Monitoring?

We're all familiar with glucose meters. Place strip in machine, poke finger with lancet, place blood on strip. Voila! Blood sugar reading!

A CGM is a "meter" that tracks your blood sugar every 5 minutes. A sensor is placed just under the skin on various locations of the body, such as the arm or the abdomen, and the sensor detects fluctuations in the blood sugar levels in the fluids. The sensor sends these trends to a receiver or your phone through a transmitter that is connected to the sensor.

These numbers can help you make treatment decisions; for example, depending on the number revealed, you may decide to treat low blood sugar or give insulin, because some of these CGMs are FDA-approved to use without fingersticks.

CGMs also assist your physician or certified diabetes educator (CDE) with adjusting your treatment plan.

Types of Continuous Glucose Monitors

Currently, there are four CGM companies on the market:

- Dexcom: Dexcom G6 requires no fingersticks and calibrations. It allows you to send your blood sugar to a smart phone or smart watch, and it allows a healthcare provider to see your numbers if you share your data. The Dexcom G5 is also available if insurance does not cover the G6; this model requires two calibrations (or fingersticks) per day.

- Medtronic Guardian Connect: Medtronic Guardian Connect is a “smart” CGM because it allows users to input data, such as food choices and exercise. Eventually, the CGM will begin to learn how the body reacts to these foods. This type of CGM requires two fingersticks per day.
- Freestyle Libre: Freestyle Libre does not require fingersticks and can be used with a smart phone or a receiver. The receiver or phone allows the user to scan the sensor for a blood sugar reading.
- Eversense: Eversense is a long-term CGM. It is placed by a healthcare provider and worn for 90 days. It is implanted into the skin and the readings are sent to an app.

Cost of CGMs

It is difficult to give an estimate of the cost of CGMs. However, insurance often covers the cost of CGMs.

Many insurance providers cover CGMs as durable medical equipment (DME), though more and more are considering them a pharmacy benefit. This is making CGMs much more affordable to the people who benefit from them.

In fact, according to Healthline, a half-dozen insurance plans started to cover Dexcom as a pharmacy benefit as of July 1, 2019. The hope is to eventually be able to walk into a big box pharmacy, such as Walgreen’s and CVS, and be able to fill a prescription for CGMs.

Pros and Cons of Continuous Glucose Monitors

CGMs have their advantages and disadvantages.

CGMs unfortunately are not an infallible piece of technology. They can fail and their numbers can be inaccurate — so don’t throw away that blood sugar meter!

Dexcom, Medtronic and Freestyle are all sensors that are placed by the user. As such, they can fall off, especially if the adhesive does not "stick" well to the user. Again, keep the meter handy, just in case.

The Medtronic Guardian Connect still requires fingersticks, which some users do not enjoy.

All sensors can be "off" with dehydration; make sure that you are properly hydrated when using a CGM. If you’re dehydrated, keep the meter around.

CGMs can be costly if your insurance does not cover them.

CGMs can be tricky initially… most CGMs use arrows to detect trends. Many users panic at these arrows, which can cause overtreatment of hyperglycemia, causing hypoglycemia. Panic can also cause overtreatment of hypoglycemia. Remember — the arrows detect trends. Use them as a guide.

The Freestyle Libre DOES NOT have alarms and only works when the receiver or phone scans the sensor.

The Bottom Line

CGMs, regardless of the type selected, can be a lifesaving technology. Use them to your benefit, but always keep your meter handy!