

## DIABETES AND DEVICES

*Contributed by Mandy Enright, MS, RDN, RYT*

November is National Diabetes Month, a month dedicated to spreading awareness and acknowledging the 37 million Americans affected by diabetes. This year there is an emphasis on taking action to prevent diabetes-related health problems.

Diabetes is a condition in which your body cannot use or make insulin effectively, resulting in persistently high blood glucose. Insulin is the hormone our body uses to regulate blood glucose. Type one diabetes is when the body does not make any insulin, while type two diabetes is where the body either doesn't make enough insulin or develops insulin resistance. Diabetes that is not properly managed can lead to eye, kidney, nerve, and heart damage, and is linked to some types of cancer.

### Why It's Important to Monitor Blood Glucose with Diabetes

Daily blood glucose monitoring is key to diabetes management. Identifying when your blood glucose is high or low is important for treatment. Our food choices, exercise habits, stress, and sleep can all impact our blood glucose, so checking your levels can help you understand more about how your lifestyle impacts your glucose levels. Tracking your blood glucose can also help assess effectiveness of treatment and medications. Speak with your doctor about when and how often you should monitor your blood glucose levels. The most common times when people are recommended to check include:

- First thing in the morning to obtain a *fasting* blood glucose level
- Before a meal
- Two hours after a meal
- Before bedtime
- Other times to check may include before or after exercise, if you are sick, or if you are experiencing symptoms of high or low blood glucose

The most common way to monitor blood glucose at home is with a blood glucose monitor which includes a lancet to make a small finger prick and a test strip to place a small droplet of blood to measure glucose levels. Multiple tests per day can become cumbersome and costly, which is why you may be hearing more about Continuous Glucose Monitors (CGMs).

### What to Know About Continuous Glucose Monitoring

A CGM is a device that estimates your blood glucose level at any time of day. These devices are usually placed on the upper arm or abdomen with an adhesive patch. They use sensors that pierce the skin to assess blood glucose levels. Once a GGM is placed on the body, many people forget they are wearing one. The CGM then transmits blood glucose information to a receiver, typically a smartphone app or an insulin pump.

### How can a CGM help someone manage diabetes?

The ability to see your blood glucose levels at any moment can allow you to make more informed decisions about your diabetes care. Since glucose levels are monitored in real time, it is easy to see how your food choices, movement, medication, and even stress can influence blood glucose levels.





## Pros & Cons of CGM

### Pros

- No more finger pricks, which means no more buying test strips and lancets
- Identify dangerous blood sugar lows and highs so they can be treated immediately
- Blood glucose levels are measured throughout the day, providing more accurate average glucose levels at fasting, before/after meals, and while sleeping
- Transmit data to another caregiver such as a parent or spouse who can be alerted if there is a diabetic emergency
- Can be worn while doing activity, including swimming
- May be covered by insurance (consult with your individual plan)

### Cons

- Sensors need to be replaced every 7-14 days
- May cause some skin redness or irritation
- May be costly if not covered by insurance

### Should someone who doesn't have diabetes use a CGM?

CGMs are now being advertised as a weight-loss tool. For those who do not have diabetes, tracking your blood glucose levels may satisfy your curiosity, detect development of prediabetes, or support other health goals. However, there is no evidence that suggests a CGM is necessary for non-diabetics. In fact, there is greater concern of the data leading to undereating or restriction when you see glucose numbers jumping around when in reality this is normal for your body. Sometimes too much data becomes less helpful.

## Managing Diabetes Through Diet & Lifestyle

- Know your carb sources which include grains, starchy vegetables, fruit, dairy (milk and yogurt), and beans/legumes – aim for the size of your palm/fist at a meal or snack.
- Aim for fiber, protein, and healthy fats at every meal and snack to avoid glucose spikes.
- Make half your plate vegetables (or a combo of fruits and vegetables) at meals.
- Limit added sugars.
- Timing is key for blood glucose control – eat every 3-4 hours and don't skip meals.
- Move! Even a walk after a meal can help your body use the glucose you just consumed.
- Find ways to manage your stress – remember exercise is a great stress reliever!
- Work with your doctor and a registered dietitian to find a plan that works for you.

If you are considering using a CGM, speak with your primary care doctor or endocrinologist to see if a CGM is right for you.

### ***What steps can you take to prevent diabetes-related health problems this November?***



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