

Getting Started with Continuous Glucose Monitors (CGMs)

Continuous glucose monitors (also known as CGMs or sensors) are devices that measure glucose or sugar in the body. CGMs use a tiny wire under the skin to measure the sugar between the cells. They give sugar values every 1-5 minutes. CGMs also show how quickly the sugar level is going up or down.

CGMs can be worn in places that insulin injections are often given. The site will depend on the device and where you have enough fatty tissue. Your diabetes team will discuss this with you.

CGMs are put in with a device. A needle in the device pushes the tiny, flexible wire under the skin. The needle then comes back out and only the wire stays under the skin. The site is typically changed every 1-2 weeks. Sensor data is sent to a receiver where the sugar level is viewed.

Benefits of Using a CGM

- CGM readings can replace the need for finger pokes most of the time.
- Early warning of a rising or falling sugar.
- Alerts when high or low sugars are noticed or predicted.
- Can help improve sugar levels and time spent with glucose in target range.
- Ability to share sugar levels with others.
- Helps to show how activity, nutrition, and medicines affect blood sugars.

Accuracy of CGM

Sugar levels from a CGM are very accurate but may not match the readings from a glucometer. CGMs measure glucose in the fluid under the skin, so readings lag behind

blood sugar measured by a glucometer. CGM and glucometer readings can be most different when blood sugars are changing quickly, like after a meal, or when a blood sugar is very high or low.

When to Use a Glucometer

- You have symptoms of a low blood sugar.
- Before and after you treat a low blood sugar.
- The receiver doesn't display a sugar reading and a guiding arrow.
- The way you feel doesn't match the sensor reading.
- The CGM is warning up or not working.
- The device asks you to check a blood sugar.

Ordering CGM

If you are interested in a CGM, talk to your diabetes team. They can help you decide if this is the right step and can start an order for the device.

Insurance

Your insurance plan will decide out-of-pocket cost and which device is covered. If you have coverage, your plan will indicate if you can get the CGM at your pharmacy or through a durable medical equipment (DME) supplier. If covered through DME, call your insurance company to ask which DME supplier you need to work with. Some examples include:

- Byram: **801-716-8872**
- Edgepark: **800-321-0591**
- Edwards: **888-344-3434**
- J&B Medical: **800-737-0045**
- Advanced Diabetes Supplies: **886-422-4866**
- Other: _____

Some insurances may need records from recent clinic visits and blood sugar logs that show blood sugar monitoring 4 or more times a day for up to 90 days. Some plans require a diagnostic CGM trial, where you have a CGM placed in the diabetes clinic and wear it for 10 days. If your insurance does not approve the CGM, there may be chances to appeal this decision. Call your clinic if you hear that a CGM is not approved.

Starting the CGM

Your CGM comes with step-by-step instructions for how to place it and start using it. Each CGM company website has training videos. The insertion devices are easy to use. If you have questions, you can reach out to the CGM company.

Setting Alarms

When first using a CGM, set alarms that warn you about high and low sugar levels, but that won't alarm too often. Over time, you can adjust your alarms to be closer to your target glucose range. Talk with your diabetes team about what alarm limits make sense for you.

Responding to High Sugars

When starting a CGM you may see sugar levels rise after eating or other patterns that you may not have seen when using your glucometer. Some people feel uneasy when they see sugars going up quickly on CGM. If you see blood sugars rising quickly or "spiking" on the CGM during or after a meal

and you have already given insulin for that meal or snack, **do not give more insulin.** The insulin keeps working to bring the sugar down for about 3-4 hours. You and your diabetes team will work on reducing these spikes so that you spend more time in your target blood sugar range ("time in range").

CGMs provide a lot of readings which can feel overwhelming. Ways to help this:

- Set alarm limits that are realistic (see "Setting Alarms" for initial settings).
- Limit how often you look at CGM data if it is not alarming.
- Connect with your diabetes team to review results and ask questions.

Supplies

Insurance companies will typically only approve enough sensors to last exactly 30 or 90 days. If you have a sensor fail early, call the device company and ask for a replacement.

- Dexcom: **888-738-3646**
- Freestyle Libre: **855-632-8658**
- Medtronic: **800-633-8766**

An order for this CGM:

- Dexcom G6/Dexcom G7
- Libre 2/Libre 3
- Medtronic Guardian

- Sent to this pharmacy: _____
- Sent to this DME supplier: _____

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 10/2022 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#8261.