Diabetes: Continuous glucose monitoring

What is a continuous glucose monitor (CGM)?
A CGM is a device that tracks the glucose in your body’s tissues as you go through your day. It can tell you when your glucose levels are rising or falling, how often they change, and how fast the changes are happening. CGMs are usually worn all the time. Sometimes, they are worn for only a few days.

How does a CGM work?

1. The glucose sensor is smaller than a bristle in a toothbrush. It is placed in the tissue under your skin with a needle. Once in place, the needle is removed. This is a simple procedure that you can do at home. You will need to move the sensor to a new location every 1 to 2 weeks. The sensor measures glucose in your body’s tissues every 5 minutes.

2. The sensor is connected to a transmitter that is taped to your skin. The transmitter sends a signal with information to a receiver, insulin pump, or smartphone that you carry with you.
   - If you have an insulin pump and a CGM, you will have two insertion sites.

3. The CGM can help you recognize when your blood glucose (BG) is getting too high or too low. Some CGMs can send your glucose readings to your parents’ or caregiver’s smartphone. In some cases, the information from your CGM can be shared with your healthcare provider over the Internet.
Questions and answers about CGMs

How can a CGM help me?
A CGM can help you, your parents or caregivers, and your healthcare providers see how food, exercise, illness, and stress change your blood glucose. Understanding your personal pattern of high and low blood glucose may make it easier to reach your target A1c.

Some CGMs can send information to your pump to stop insulin delivery if your blood glucose is dangerously low. This can help avoid problems from severe low blood glucose (hypoglycemia).

Do I still have to do finger sticks if I have a CGM?
This will depend on the type of CGM you have. Some CGMs require checking your blood glucose with a finger stick at least 4 times a day to calibrate your CGM. Others do not. Work with your diabetes care team to understand what you need to do for testing with your specific CGM.

Can I use a CGM if I have type 2 diabetes?
Yes. A CGM can be used by anyone with either type 1 or type 2 diabetes.

Can I have a CGM if I don’t have an insulin pump?
Yes. You can have a CGM even if you don’t have a pump.

Will it keep me from my favorite activities?
No. You can exercise, swim, and shower with the sensor and transmitter in place.

Can I use it with my smartphone?
Some CGMs will communicate with your smartphone. Talk with your parents or caregivers and your healthcare providers about your expectations and needs. They can help you decide if a CGM is a good fit for you or your family.

Will my insurance pay for it?
Parents or caregivers should ask their health insurance provider if a CGM is covered.

Specific instructions from your healthcare provider:

Your healthcare provider requires the following information before you can have a CGM:

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