

Continuous Glucose Monitoring

What are continuous glucose monitors (CGM)?

CGM's are wearable glucose monitoring devices that do not regularly require finger sticks to track your blood sugar levels. Your blood glucose is automatically tracked when wearing the device sensor. You can check your blood glucose levels at any time using the reader or a compatible smart device.

CGM's operate using a sensor that will be placed on your arm or stomach, a transmitter, and a reader or compatible smart device. Blood glucose is measured every few minutes from the interstitial (between cells) fluid as the sensor does not go into your blood. The transmitter sends the information to the reader, smart device, or insulin pump.

Advantages	Disadvantages
Monitor glucose 24/7	Can increase diabetes distress with constant access to blood sugar data Sensors can fall off early
Useful reports to share with provider	Limits with water activities (brand dependent)
Can alarm when your glucose is too low or high	Alarm fatigue Drug, vitamin, and mineral interactions
Can note meals, activity, medications in app alongside glucose readings	Lag time between blood sugar and interstitial fluid readings. Can be 2.5-15 minutes
Some can send information to a second person	Drug, vitamin, and mineral interactions
Typically requires less blood glucose sticks	Sensors can fall off early

Data Reports:

- **Using smart device:** the data will download automatically to the app in your phone. This can be connected to your physician's office via their online portal for remote monitoring of your blood glucose levels.
- **Using reader:** Data will need to be downloaded to a computer using the provided cord. Download the data after each sensor. The report can be sent to your provider or printed.

Common CGM Brands:

Dexcom G6

- Alerts for high and low glucose levels
- Sensors last 10 days, transmitter lasts 90 days
- **Drug-Nutrient Interactions** cause readings to be higher than actual blood glucose levels
 - Hydroxyurea
 - Acetaminophen (>1g/6hours)
- **Swimming:** Can be submerged under 8 feet of water for up to 24 hours
- **MRI/CT scans/x-ray/7 diathermy treatment:** Must be removed
- **Flying:** Avoid AIT body scanner and x-ray machine

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- Alerts for high and low glucose levels
- Sensor and transmitter last 14 days
- **Drug-Nutrient Interactions** cause readings to be higher than actual blood glucose levels:
 - Vitamin C (>500mg per day)
- **Swimming:** Can be submerged up to 3 ft or kept underwater for 30 minutes at a time
- **MRI/CT scans/x-ray/7 diathermy treatment:** Must be removed
- **Flying:** Avoid AIT body scanner and x-ray machine