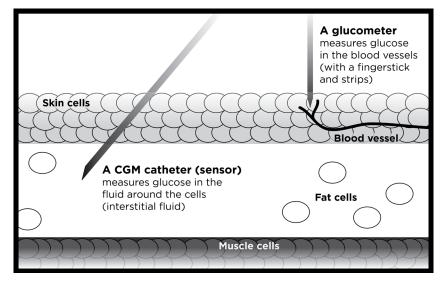
# Continuous Glucose Monitoring (CGM)

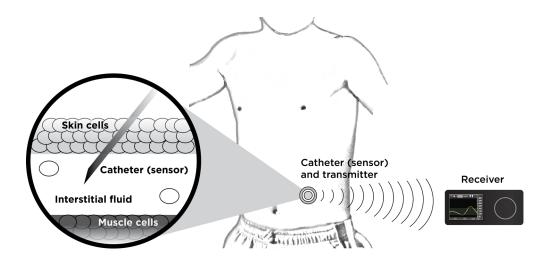
Information about devices currently on the market and how they work

### What is CGM?

A continuous glucose monitor (CGM) is a small electronic device worn on the body to measure glucose levels on a continued basis. Unlike a glucometer, which measures glucose in your blood, the CGM measures the glucose level in the fluid around the cells, called interstitial fluid.



A CGM system contains a sensor (under the skin) and transmitter, plus a separate receiver worn outside the body. Messages and data can be sent to you via a phone app. Sometimes the system includes an insulin pump, too.



#### 1 of 4

#### To Learn More

- Endocrinology 206-987-2640
- Ask your child's healthcare provider
- seattlechildrens.org

#### **Free Interpreter Services**

- In the hospital, ask your nurse.
- From outside the hospital, call the toll-free Family Interpreting Line, 1-866-583-1527. Tell the interpreter the name or extension you need.



# **How does it work?** A tiny disposable sensor is placed under the skin with a small needle and attached to a small transmitter. The transmitter sends glucose information via radio frequency to a wireless handheld receiver and smartphone or insulin pump. The sensor reads the glucose values every 5 minutes. You remove the sensor and replace it with a new one about once a week.

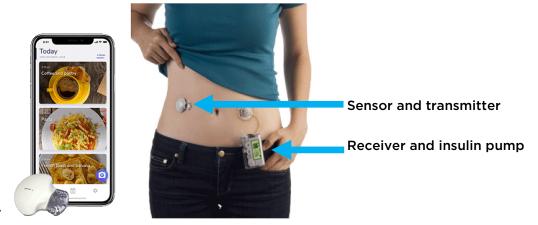
## What can a continuous glucose monitor do for my child?

CGM does:	Provide continuous "real time" interstitial glucose readings
	<ul> <li>Give immediate feedback on how food choices, physical activity, stress, etc., affect your glucose values</li> </ul>
	Have alarms to alert you of high glucose and low glucose levels
	Improve overnight control
	<ul> <li>Give you the ability to recognize spikes in blood glucose (continuous access to data leads to more frequent insulin dosing.)</li> </ul>
	<ul> <li>Improve management of glucose when you are sick</li> </ul>
CGM does not:	• Give insulin
	Replace all blood glucose checks.
	<ul> <li>Your child may need to check their blood glucose at certain times:</li> </ul>
	<ul> <li>To confirm high or low glucose values</li> </ul>
	$_{\odot}$ When not wearing the CGM device for whatever reason
	<ul> <li>When calibrating the CGM device</li> </ul>
	<ul><li>(see information on calibration below)</li><li>o Before driving</li></ul>
CGM may require calibration	Each CGM device may require calibration to make sure it's tracking accurately. Calibration means entering a fingerstick blood glucose value into the CGM device. The number of required times you will need to do calibrations each day depends on the CGM device. Good calibration habits are essential to assure that the CGM will work properly.
How do I know if	CGM may be most helpful if your child:
CGM is right for my child?	<ul> <li>Has frequent low blood glucose (hypoglycemia), particularly during sleep</li> </ul>
	<ul> <li>Experiences large blood glucose variability (has lots of large dips in the glucose highs and lows)</li> </ul>
	<ul> <li>Is not aware when their blood glucose gets low</li> </ul>
	<ul> <li>Is interested in learning how things like exercise, food, and growth impact blood glucose levels</li> </ul>
	<ul> <li>Is interested in learning more about how to make insulin dose adjustments</li> </ul>

Potential challenges with CGM	<ul> <li>Your child needs to wear the device all the time. Research shows that those who wear it at least 6 days per week consistently get the most benefit. (However, intermittent use can also be helpful in some cases.)</li> <li>There may be more fingerstick blood glucose monitoring, especially when first starting.</li> </ul>
	<ul> <li>You may feel information (data) overload: seeing this amount of glucose information can be overwhelming to some.</li> </ul>
	<ul> <li>Occasionally the sensor may malfunction, lead to insertion site infections or cause skin irritation from the adhesive.</li> </ul>
What CGM devices are available?	Please ask your provider or nurse for company-specific brochures and visit these websites for more information.
Dexcom	dexcom.com 1-877-339-2664

Medtronic MiniMed

medtronicdiabetes.com 1-800-646-4633



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Smartphone app and sensor

Sensor and transmitter

Wireless receiver

