

A Guide to Continuous Glucose Monitors (CGMs)

Many students with diabetes wear CGM devices, which continuously measure glucose and reduce (but don't eliminate) the need for checking blood sugar with a fingerstick. These devices provide more information about glucose levels than fingersticks alone and can send alerts to the user when glucose is outside the target range.

CGM sensors are inserted every 7, 10, or 14 days (depending on the device), and are applied at the student's home. This guide compares features of CGM devices available for children/youth in Canada.

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	Dexcom G6 or G7	Freestyle Libre	Medtronic: Guardian 3 or 4
All CGMs transmit data continuously to a device that shows glucose readings and patterns. These photos show the sensor (which is inserted on the student's body), and a typical display of glucose data.	6.1 Seconds	6.2 ²	5.6
Alerts and alarms for high or low glucose?	Yes	Yes	Yes
Where data can be displayed	Smartphone/watch or receiver	Smartphone or reader (reader requires scan)	Medtronic pump or smartphone
Fingerstick required for calibration or before insulin bolus for food?	No	No	Guardian 4: No Guardian 3: To calibrate

IMPORTANT! Always check blood sugar using a fingerstick when a student has symptoms that don't match the reading on a CGM: for example, if a student feels low but CGM reading is not under 4.0 mmol/L