

## CONTINUOUS GLUCOSE MONITORING SYSTEMS (Part 1 of 2)

A Continuous Glucose Monitoring (CGM) System is a prescription device that provides continuous, real-time, dynamic blood glucose measurements throughout the day and night. CGM systems have three basic parts: a sensor (inserted under the skin to measure glucose levels), a transmitter (connects to sensor and sends data via wireless technology), and a display device (a commercially-available receiver/monitor or a compatible smart device with a downloaded app to display/store results). Some systems only have two main parts: a sensor (measures and transmits) and a reader (receives and displays readings from the sensor) or a recorder (collects and stores data from the sensor). CGMs can be used for patients on insulin injections or insulin pump therapy for Type 1 or Type 2 diabetes. They are available either for personal use or for diagnostic use\* by healthcare professionals (to continuously record glucose readings and aid with patient's glucose management).

CGM systems must be removed before Magnetic Resonance Imaging (MRI) and Computed Tomography (CT) procedures, diathermy treatments, and X-ray procedures. They should be avoided in pregnant, dialysis or critically-ill patients.

CGMS	Age	Glucose range (mg/dL)	Parts	Sensor insertion sites	Sensor life <sup>1</sup> (days)	Transmitter life/range	Calibration <sup>2</sup>	Display device	Features
<b>ABBOTT LABS • myfreestyle.com</b>									
FreeStyle Libre 2	≥4yrs	40–400	Sensor, reader	Back of upper arm	14	—	None	Handheld reader <sup>3</sup> or own smart device <sup>7</sup>	<ul style="list-style-type: none"> <li>Designed to replace fingerstick testing (use blood glucose meter as backup) to make treatment decisions based on sensor glucose readings</li> <li>Outstanding accuracy in the low-glucose range</li> <li>Optional, real-time alarms for low or high glucose readings (sensor and reader must be within 20 feet)</li> <li>Real-time glucose readings only with a sensor scan</li> <li>Reader stores up to 90 days of glucose data</li> <li>Works with FreeStyle Libre software and FreeStyle LibreLink app</li> <li>False elevation with vitamin C</li> </ul>
FreeStyle Libre 3	≥4yrs	40–400	Sensor	Back of upper arm	14	—	None	Own smart device <sup>7</sup>	<ul style="list-style-type: none"> <li>Designed to replace fingerstick testing (use blood glucose meter as backup) to make treatment decisions based on sensor glucose readings</li> <li>Eliminates need for separate reader</li> <li>Real-time glucose readings automatically displayed every minute on smart device</li> <li>Glucose readings stored in app every 5mins for up to 14 days</li> <li>Works with FreeStyle Libre 3 app</li> <li>False elevation with vitamin C</li> </ul>
FreeStyle Libre 14 Day	≥18yrs	40–500	Sensor, reader	Back of upper arm	14	—	None	Handheld reader <sup>3</sup> or own smart device <sup>7</sup>	<ul style="list-style-type: none"> <li>Designed to replace fingerstick testing (use blood glucose meter as backup) to make treatment decisions based on sensor glucose readings</li> <li>Real-time glucose readings only with a sensor scan</li> <li>Reader stores up to 90 days of glucose data</li> <li>Works with FreeStyle Libre software and FreeStyle LibreLink app</li> <li>Automatic data upload to LibreView for easy physician access and has option for wireless data sharing</li> <li>False elevation with vitamin C and reduction with salicylic acid</li> </ul>
FreeStyle Libre Pro*	≥18yrs	40–500	Sensor, reader	Back of upper arm	14	—	None	Handheld reader <sup>4</sup>	<ul style="list-style-type: none"> <li>For use by healthcare professionals only</li> <li>Does not provide real-time results (patient must use blood glucose meter)</li> <li>Readings are only made available to patients through consultation with provider</li> <li>Sensor stores glucose readings every 15mins for up to 14 days</li> <li>Detects glucose trends and tracks patterns</li> <li>Works with FreeStyle Libre Pro software</li> <li>False elevation with vitamin C and reduction with salicylic acid</li> </ul>
<b>ASCENSIA DIABETES CARE • ascensidiabetes.com</b>									
Eversense E3	≥18yrs	40–400	Sensor, transmitter	Upper arm	180	12mos (reusable); up to 24.9 feet	1–2 times daily <sup>8</sup>	Own smart device <sup>7</sup>	<ul style="list-style-type: none"> <li>Designed to replace fingerstick testing (use blood glucose meter as backup) to make treatment decisions based on sensor glucose readings</li> <li>Provides long-term (up to 6mos) continuous monitoring via under-the-skin-sensor (implanted by healthcare provider)</li> <li>Removable, water-resistant &amp; rechargeable transmitter. Adhesive patch on transmitter must be changed daily</li> <li>Customizable alerts and notifications including on-body vibrate alerts</li> <li>Provides patterns &amp; trends</li> <li>Works with Eversense Data Management Software Program</li> <li>Works with Eversense NOW app for remote monitoring capability</li> <li>False reduction with tetracyclines</li> </ul>

(continued)

# CONTINUOUS GLUCOSE MONITORING SYSTEMS (Part 2 of 2)

CGMS	Age	Glucose range (mg/dL)	Parts	Sensor insertion sites	Sensor life <sup>1</sup> (days)	Transmitter life/range	Calibration <sup>2</sup>	Display device	Features
<b>DEXCOM • dexcom.com</b>									
Dexcom G6	≥2yrs	40–400	Sensor, transmitter, receiver	Abdomen (≥2yrs), upper buttocks (2–17yrs)	10	3mos (reusable); up to 20 feet unobstructed	None <sup>9</sup>	Receiver or own smart device <sup>5,7</sup>	<ul style="list-style-type: none"> <li>Designed to replace fingerstick testing (use blood glucose meter as backup) to make treatment decisions based on sensor glucose readings</li> <li>Slim wearable profile and one-button sensor insertion</li> <li>Customizable alerts based on personal schedule</li> <li>20-min advance warning of a potential severe hypoglycemic event</li> <li>Sensor sends a reading every 5mins for up to 10 days.</li> <li>Works with Dexcom CLARITY reporting system and Dexcom Share system (data transfer to a follower)</li> <li>False elevation with hydroxyurea and acetaminophen (&gt;4g/24hrs)</li> </ul>
Dexcom G6 Pro*	≥2yrs	40–400	Sensor, transmitter, reader	Abdomen (≥2yrs), upper buttocks (2–17yrs)	10	One-time use; up to 20 feet unobstructed	None	Handheld reader or own smart device <sup>7</sup>	<ul style="list-style-type: none"> <li>For use by healthcare professionals</li> <li>Available in 2 modes: real-time readings available to patient via own smart device (unblinded) and readings sent to clinic-owned reader (blinded)</li> <li>One-touch single-use sensor and single-use, disposable transmitter</li> <li>Stores glucose readings every 5mins for up to 10 days</li> <li>Real-time alerts for high and low glucose readings (unblinded mode)</li> <li>Works with Dexcom CLARITY reporting system</li> <li>False elevation with hydroxyurea and acetaminophen (&gt;4g/24hrs)</li> </ul>
<b>MEDTRONIC • medtronic.com</b>									
Guardian Connect	14–75yrs	40–400	Sensor, transmitter	Abdomen, back of upper arm	7	122 times or 12mos, whichever comes first (reusable); up to 20 feet unobstructed	3–4 times daily	Own smart device <sup>7</sup>	<ul style="list-style-type: none"> <li>Designed to complement standard home glucose monitoring systems (does not replace a blood glucose meter); do not use for treatment decisions</li> <li>Real-time glucose readings and trends through a Guardian Connect app</li> <li>Customizable alerts</li> <li>False elevation with acetaminophen</li> </ul>
iPro2*	≥18yrs	40–400	Sensor, recorder <sup>4</sup> , docking system	Abdomen	6	—	4 times daily	Own computer <sup>6</sup>	<ul style="list-style-type: none"> <li>For use by healthcare professionals only</li> <li>Designed to complement standard glucose monitoring devices (does not replace a blood glucose meter)</li> <li>Does not provide real-time results (must use blood glucose meter)</li> <li>Recorder<sup>4</sup> can be used 60 times; discard afterwards</li> <li>Patient must return to clinic within 10 days of the end of the session</li> <li>Works with CareLink iPro Therapy Management software</li> <li>False elevation with acetaminophen</li> </ul>

## NOTES

<sup>1</sup> Sensors are single-use only; do not reuse or use beyond its sensor life.

<sup>2</sup> Calibrate CGM system with glucose readings from a commercially-available blood glucose meter.

<sup>3</sup> With built-in blood-glucose meter that works with FreeStyle Precision Neo test strips.

<sup>4</sup> Reader or recorder is intended for use to gather data from sensors from multiple patients.

<sup>5</sup> Does not work with multiple smart devices at the same time; not interchangeable during a sensor session.

<sup>6</sup> Results displayed via a software in the computer.

<sup>7</sup> For a complete list of compatible smart devices, see full product information.

<sup>8</sup> After the initialization phase, 2 daily calibrations (every 12hrs) are needed for at least 21 days. After the first 21 days, the system will detect and alert user if 1 (every 24hrs) or 2 (every 12hrs) daily calibrations are needed.

<sup>9</sup> Calibration is not required, but a patient may choose to manually calibrate once every 24hrs if desired.

Not an inclusive list of medical devices. Please see company websites for detailed product information.

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