

# Comparing Continuous Glucose Monitors (CGM)

## Stand-alone CGM



Sensor features	Dexcom ONE+	Freestyle Libre 2 plus	LinX CGM
NZ Supplier	<u>NZMS</u>	<u>Mediray</u>	<u>Intuitive Therapeutics</u>
Sensor Life	10 days + 12 hour grace period	15 days	15 days
Sensor size	27.4mm (L) 24.1mm (W) 4.7mm (H)	35mm (diameter) 5mm (H)	22mm (diameter) 4.22mm (H)
Sensor warm up time	30 minutes	60 minutes	60 minutes
Frequency of glucose readings	Every 5 minutes	Every 1 minute	Every 1 minute
Recommended sensor placement	Back of arm and abdomen	Back of arm	Back of arm and abdomen
Sensor design	All-in-one with a built in disposable transmitter	All-in-one with a built in disposable transmitter	All-in-one with a built in disposable transmitter

Sensor features continued	Dexcom ONE+	Freestyle Libre 2 plus	LinX CGM
Sensor insertion	One-touch device insertion	Sensor device and applicator come separately, once joined together then one-touch device insertion	One-touch device insertion
Bluetooth range	6 meters	6 meters	8-10 meters (unobstructed)
Water resistance	2.4 meters depth for up to 24 hours	1 meter depth for 30 minutes	1 meter depth for 30 minutes
Glucose results affected by medication	Yes - hydroxyurea	Yes - high dose vitamin C	No
Approved for use*	Age 2 years and over and pregnancy*	Age 2 years and over and pregnancy*	Age 18 years and over*
<b>Glucose data display</b>			
Phone app	Dexcom ONE+ app	LibreLink app	LinX CGM app
Phone app availability**	<u>Check</u> compatible Android and iOS phones**, requires NFC and Bluetooth	<u>Check</u> compatible Android and iOS phones**, requires NFC and Bluetooth	<u>Check</u> compatible Android and iOS phones**, requires Bluetooth only

Glucose data display continued	Dexcom ONE+	Freestyle Libre 2 plus	LinX CGM
Receiver / reader available	Dexcom ONE+ Receiver	Libre 2 Reader	Coming soon
Glucose display	<p>Automatically updates on Dexcom ONE+ app every 5 minutes</p> <p>Dexcom ONE+ receiver automatically updates every 5 minutes</p>	<p>Automatically updates on LibreLink app every 1 minute</p> <p>The Libre 2 reader device must be scanned over the sensor to receive a result - up to 8 hours of data is stored on the sensor</p>	<p>Automatically updates on LinX CGM app every 1 minute</p>
<b>Alerts / Alarms</b>			
Low alerts	<p>Yes - customisable between 3.3 - 8.3 mmol/L</p> <p>No urgent low alert</p>	<p>Yes - customisable between 3.3 - 5.6 mmol/L</p> <p>No urgent low alert</p>	<p>Yes - customisable between 3.0 - 5.0 mmol/L</p> <p>Urgent low alert fixed at 3.0 mmol/L</p>
High alerts	<p>Yes - customisable between 5.5 - 22.2 mmol/L + optional delayed first alert</p>	<p>Yes - customisable between 6.6 - 22.2 mmol/L</p>	<p>Yes - customisable between 7.0 - 25.0 mmol/L</p>
Rapidly changing glucose	No	No	Yes
Total number of alerts	2	2	up to 6

	Dexcom ONE+	Freestyle Libre 2 plus	LinX CGM
<b>Accuracy</b>			
MARD (adults)	8.2% in arm	8.2%	8.66%
MARD (children)	8.1% arm (7-17 y/o) 9.0% abdomen (7-17 y/o)	8.2%	N/A
Calibration required	Not required but option available	Not required option not available	Not required but option available
<b>Data sharing</b>			
Data following for carers and whānau	Available if using Dexcom ONE+ phone app, share data using the Dexcom Follow phone app  Not available if using the Dexcom ONE+ receiver	Available if using the LibreLink phone app, share data using the LibreLinkUp phone app  Not available if using the Libre 2 reader	Available  Share data using the LinX CGM phone app
Cloud based diabetes management system (DMS) to share with healthcare professionals	Dexcom ONE+ phone app automatically uploads glucose data to Dexcom Clarity (DMS)  Dexcom ONE+ Receiver can be manually uploaded to Dexcom Clarity (DMS) using a USB cable	Libre Link phone app automatically uploads glucose data to Libreview (DMS)  Dexcom ONE+ Receiver can be manually uploaded to Dexcom Clarity (DMS) using a USB cable	LinX CGM phone app automatically uploads glucose data to PanCares (DMS)  Can also export reports as a PDF from the LinX CGM phone app and send via email

Cost	Dexcom ONE+	Freestyle Libre 2 plus	LinX CGM
Pharmac funding for type 1, pancreatogenic, monogenic and neonatal diabetes***	Funded by Pharmac for people with Type 1 diabetes, neonatal diabetes, pancreatogenic diabetes, and atypical inherited forms of diabetes***	Funded by Pharmac for people with Type 1 diabetes, neonatal diabetes, pancreatogenic diabetes, and atypical inherited forms of diabetes***	Not funded***
Sensor cost****	\$78.20 per 10 day sensor****	\$114.38 per 15 day sensor****	\$95.00 per 15 day sensor****
Receiver/Reader cost****	\$287.50****	\$106.75****	Coming soon
Approximate daily cost ****	\$7.82****	\$7.63****	\$6.33****

#### Definitions:

- CGM - Continuous Glucose Monitor
- MARD - Mean Absolute Relative Difference. This is a statistical measure used to assess the accuracy of CGM by comparing the CGM values to a reference value. A lower MARD indicates greater accuracy, however MARD should be interpreted with caution as MARD for devices gets tested in different ways.
- Sensor warm up time - is how long the sensor takes to start giving glucose readings after it is inserted and started.
- Transmitter - Device that clips into a CGM sensor and transmits the glucose data to a reader or phone
- Sensor - Device that is inserted with a filament under the skin to read glucose levels in the interstitial fluid
- DMS - Diabetes management system, this is a cloud based server where your healthcare team can login to review your glucose levels/pump data remotely
- The Bluetooth range refers to the maximum distance at which your sensor and receiver or reader device can reliably communicate glucose readings
- NFC - Near Field Communication refers to a chip in the phone used to 'start' or 'scan' the sensor

#### Notes

\* Approved for use refers to FDA approval, however these systems may be used in other populations with specialist advice and support

\*\*Phone compatibility varies, check the company website to make sure that your phone is compatible with the CGM device before purchasing/ordering.

\*\*\* Pharmac funding for stand-alone CGM is for people with Type 1 Diabetes, Neonatal diabetes, Pancreatogenic diabetes and Atypical inherited forms of diabetes. Pharmac funds pump compatible CGM to be used with Automated Insulin Delivery systems, not for people using multiple daily injections of insulin. However, these CGM can be funded for people requiring predictive low glucose alerts if their clinical team determines this is necessary.

\*\*\*\* Prices from company websites as of April 2025