Comparing Continuous Glucose Monitors (CGM)
Pump compatible CGM

Insulin pump / AID compatibility	Dexcom G6	Dexcom G7	Freestyle Libre 3+	Guardian G4
Tandem T:Slim X2 with Control-IQ	Yes	Yes	No (coming 2025)	No
YpsoPump with CamAPS FX AID	Yes	No	Yes	No
Medtronic Minimed 780G with SmartGuard	No	No	No	Yes
Sensor features				
NZ Supplier	NZMS	NZMS	Mediray	Intermed
Sensor life	10 days	10 days + 12 hr grace period	15 days	7 days
Transmitter life	3 months	N/A	N/A	12 months+

Sensor features continued	Dexcom G6	Dexcom G7	Freestyle Libre 3+	Guardian G4
Sensor size	47.5mm (L) 30.5mm (W) 15.2mm (H)	27.4mm (L) 24.1mm (W) 4.7mm (H)	21mm (diameter) 2.9mm (H)	28.7mm (L) 35.8mm (W) 9.6mm (H)
Sensor warm up time	2 hours	30 minutes	60 minutes	2 hours
Frequency of glucose readings	Every 5 minutes	Every 5 minutes	Every 1 minute	Every 5 minutes
Sensor design	Sensor and transmitter are separate	All-in-one with a built in disposable transmitter	All-in-one with a built in disposable transmitter	Sensor and transmitter are separate
Sensor insertion	Two step process Sensor device one-touch device insertion, then clip in reusable transmitter	One-touch device insertion	One-touch device insertion	Multi-step process Sensor device placed into inserter device, then press button, secure tapes, then clip in reusable transmitter
Bluetooth range	6 meters	10 meters	10 meters	6 meters
Water resistance	2.4 meters depth for up to 24 hours	2.4 meters depth for up to 24 hours	1 meter depth for 30 minutes	2.4 meters depth for 30 minutes

Sensor features continued	Dexcom G6	Dexcom G7	Freestyle Libre 3+	Guardian G4
Glucose readings affected by medication	Yes - Hydroxyurea	Yes - Hydroxyurea	No	Yes - Paracetamol
Approved for use*	Age 2 years and over*	Age 2 years and over*	Age 2 years and over*	All ages
Recommended sensor placement (adults)	Back of arm or abdomen	Back of arm or abdomen	Back of arm	Back of arm or abdomen
Glucose data display				
When using Tandem pump with **Control-IQ**	Displays on pump & Dexcom G6 phone app or Dexcom Receiver	Displays on pump & Dexcom G7 phone app or Dexcom Receiver	N/A (compatibility expected 2025)	N/A
When using YpsoPump with **CamAPS FX**	Displays on mylife CamAPS FX phone app* (Android only iOS coming 2025)	N/A	Displays on mylife CamAPS FX phone app* (Android only iOS coming 2025)	N/A
When using Medtronic Minimed 780G Pump with **SmartGuard**	N/A	N/A	N/A	Displays on pump and Minimed phone app* (Android and iOS)

Glucose data display continued	Dexcom G6	Dexcom G7	Freestyle Libre 3+	Guardian G4
CGM only phone app	Dexcom G6 app	Dexcom G7 app	Librelink is not compatible with Libre 3+ in NZ	Minimed app
Alerts / Alarms				
High and low alerts	Yes	Yes	Yes	Yes
Urgent low soon alert	Yes	Yes	Yes	Yes
Rate of change alerts	Yes	Yes	Yes	Yes
Accuracy				
Calibration required	No, but there is an option available	No, but there is an option available	No, but there is an option available	No, but there is an option available
MARD (adults)	9.8%	8.7%	7.8%	10.8%
MARD (children)	9.6% (6-17 y/o) 9.9% (2-5 y/o)	8.1% - arm (7-17 y/o) 9.0% - abdomen (7-17 y/o)	8.6% (6-17 y/o)	10.8% (all ages)

Data sharing	Dexcom G6	Dexcom G7	Freestyle Libre 3+	Guardian G4
Data following for carers and whānau	Tandem + Control-IQ - CGM only using the Dexcom Follow phone app. t:connect app expected in 2025 YpsoPump + CamAPS FX - up to 10 companions on mylife CamAPS FX phone app*	Tandem + Control-IQ- CGM only using the Dexcom Follow phone app. t:connect phone app expected in 2025 YpsoPump + CamAPS FX - not compatible	Tandem + Control-IQ - not compatible (expected in 2025) YpsoPump + CamAPS FX - up to 10 companions on mylife CamAPS FX phone app*	Minimed 780G + SmartGuard - up to 5 care partners on the Carelink Connect phone app*
Cloud based diabetes management system (DMS) to share with healthcare professionals	Glooko Dexcom Clarity for CGM data only	Glooko Dexcom Clarity for CGM data only	Glooko	Carelink
Uploading to the cloud / DMS and sharing with your healthcare team	Tandem + Control-IQ manual upload to Glooko with USB cable YpsoPump + CamAPS FX automatic upload to Glooko via mylife CamAPS FX phone app*	Tandem + Control-IQ manual upload to Glooko with USB cable	YpsoPump + CamAPS FX automatic upload to Glooko via mylife CamAPS FX phone app*	MiniMed 780G + SmartGuard automatic upload to Carelink at midnight via Minimed phone app*

Cost	Dexcom G6	Dexcom G7	Freestyle Libre 3+	Guardian G4
Pharmac funding**	Yes**	Yes**	Yes**	No**
Sensor price***	$126.50 per sensor purchased as a box of 3 for $379.50	$126.50 per sensor Can be purchased as a monthly subscription for $379.50	Unable to purchase directly from distributer	$429.50 for a pack of 5 sensors
Transmitter price***	$529.00 per transmitter (lasts 3 months)	N/A	N/A	Transmitter kit can be ordered from Intermed
Approximate daily cost***	$18.45 per day (including transmitter)	$12.65 per day***	N/A	$12.27 per day (excluding transmitter)

Definitions:

- CGM - Continuous Glucose Monitor
- AID - Automated Insulin Delivery
- 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
** Pharmac funding for 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 October 2024