



# 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                            | <u>NZMS</u> | <u>NZMS</u> | <u>Mediray</u>     | <u>Intermed</u> |
| Sensor life                            | 10 days     | 10.5 days   | 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)<br>30.5mm (W)<br>15.2mm (H)  | 27.4mm (L)<br>24.1mm (W)<br>4.7mm (H)             | 21mm (diameter)<br>2.9mm (H)                      | 28.7mm (L)<br>35.8mm (W)<br>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<br>Sensor device one-touch device insertion, then clip in reusable transmitter | One-touch device insertion                        | One-touch device insertion                        | Multi-step process<br>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 and pregnancy*  | Age 2 years and over and pregnancy*                       | Age 2 years and over and pregnancy*  | Aged 7 years and over*                                       |
| Recommended sensor placement (adults)                         | Back of arm or abdomen   | Back of arm or abdomen                                    | Back of arm  | Back of arm or abdomen                                       |
| <b>Glucose data display</b>                                   |  |   |  |  |
| When using Tandem pump with <b>Control-IQ</b>                 | Displays on pump & Dexcom G6 phone app or Dexcom Receiver                    | Displays on pump & Dexcom G7 phone app or Dexcom Receiver | N/A<br>(compatibility expected 2025)   | N/A  |
| When using Ypsopump with <b>CamAPS FX</b>                     | Displays on mylife CamAPS FX phone app*<br>(Android only<br>iOS coming 2025) | N/A   | Displays on mylife CamAPS FX phone app*<br>(Android only<br>iOS coming 2025) | N/A  |
| When using Medtronic Minimed 780G Pump with <b>SmartGuard</b> | N/A  | N/A   | N/A  | Displays on pump and Minimed phone app*<br>(Android and iOS) |

| <b>Glucose data display continued</b> | <b>Dexcom G6</b>                     | <b>Dexcom G7</b>                                   | <b>Freestyle Libre 3+</b>                       | <b>Guardian G4</b>                   |
|---------------------------------------|--------------------------------------|--|---|--------------------------------------|
| CGM only phone app                    | Dexcom G6 app                        | Dexcom G7 app                                      | Librelink is not compatible with Libre 3+ in NZ | Minimed app                          |
| <b>Alerts / Alarms</b>                |                                      |  |   |                                      |
| High and low alerts                   | Yes                                  | Yes  | Yes   | Yes                                  |
| Urgent low soon alert                 | Yes                                  | Yes  | Yes   | Yes                                  |
| Rate of change alerts                 | Yes                                  | Yes  | Yes   | Yes                                  |
| <b>Accuracy</b>                       |                                      |  |   |                                      |
| 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)<br>9.9% (2-5 y/o)    | 8.1% - arm (7-17 y/o)<br>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  | <p>Tandem + Control-IQ - CGM only using the Dexcom Follow phone app. t:connect app expected in 2025</p> <p>YpsoPump + CamAPS FX - up to 10 companions on mylife CamAPS FX phone app*</p> | <p>Tandem + Control-IQ- CGM only using the Dexcom Follow phone app. t:connect phone app expected in 2025</p> <p>YpsoPump + CamAPS FX - not compatible</p> | <p>Tandem + Control-IQ - not compatible (expected in 2025)</p> <p>YpsoPump + CamAPS FX - up to 10 companions on mylife CamAPS FX phone app*</p> | <p>Minimed 780G + SmartGuard - up to 5 care partners on the Carelink Connect phone app*</p>             |
| Cloud based diabetes management system (DMS) to share with healthcare professionals | <p><u>Glooko</u></p> <p><u>Dexcom Clarity</u> for CGM data only</p>  | <p><u>Glooko</u></p> <p><u>Dexcom Clarity</u> for CGM data only</p>   | <p><u>Glooko</u></p>  | <p><u>Carelink</u></p>  |
| Uploading to the cloud / DMS and sharing with your healthcare team                  | <p>Tandem + Control-IQ manual upload to <u>Glooko</u> with USB cable</p> <p>YpsoPump + CamAPS FX automatic upload to <u>Glooko</u> via mylife CamAPS FX phone app*</p>                   | <p>Tandem + Control-IQ manual upload to <u>Glooko</u> with USB cable</p>  | <p>YpsoPump + CamAPS FX automatic upload to <u>Glooko</u> via mylife CamAPS FX phone app*</p>   | <p>MiniMed 780G + SmartGuard automatic upload to <u>Carelink</u> at midnight via Minimed phone app*</p> |

| Cost   | Dexcom G6  | Dexcom G7   | Freestyle Libre 3+                           | Guardian G4                                  |
|--|--|---|--|--|
| Pharmac funding*** for type 1, pancreatogenic, monogenic & neonatal diabetes | Yes**  | Yes**   | Yes**  | No**   |
| Sensor price*** (Excludes shipping)  | \$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 distributor | \$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 February 2025