

Children and Young People's Diabetes Team

Getting accurate readings from the Dexcom G4 CGM

Continuous Glucose monitoring (CGM) can be very useful in helping to identify high or low glucose levels and in providing glucose trends for use in adjusting insulin doses. There are often small variations between CGM sensor glucose readings and finger prick blood glucose levels (often when glucose levels are changing rapidly). For this reason it is important to always use finger prick information when deciding on a dose of insulin or treating hypoglycaemia. However if you are experiences significant differences between sensor glucose and finger prick blood glucose readings the following advice may help to ensure more accurate sensor glucose readings. This advice refers to the use of the Dexcom G4 CGM only.

Calibration

Accurate calibration of your CGM is vital in ensuring accurate sensor readings. Consider the following:

- ✓ The dexcom G4 should be calibrated twice (separate finger pricks) following each sensor change, then every 12 hours and any time that the receiver requests further calibrations to be entered. If you have not entered a calibration blood glucose in the last 12 hours the sensor glucose may be inaccurate.
- ✓ Enter the exact blood glucose into the receiver for calibration.
- ✓ Enter calibrations when your sensor glucose is steady and as soon as possible after finger prick blood glucose was taken (within 5 minutes). If glucose levels are rapidly changing a blood glucose levels taken can soon be inaccurate.
- ✓ Ensure hand washing when blood glucose testing for a calibration – inaccurate blood glucose will lead to inaccurate CGM readings.
- ✓ Do not use alternate sites (such as forearm and hand) for blood glucose tests for calibration.
- ✓ You should always use the same blood glucose meter for calibration blood glucose tests, do not change meter in the middle of a sensor session.
- ✓ Ensure this meter has been quality control tested as per your nurse/manufacturer's instructions.
- ✓ Do not calibrate CGM if readings are under 2.2mmol or over 22.2mmol or if the following symbols appear on the receiver:



