

Unreliable CGM data = artefact

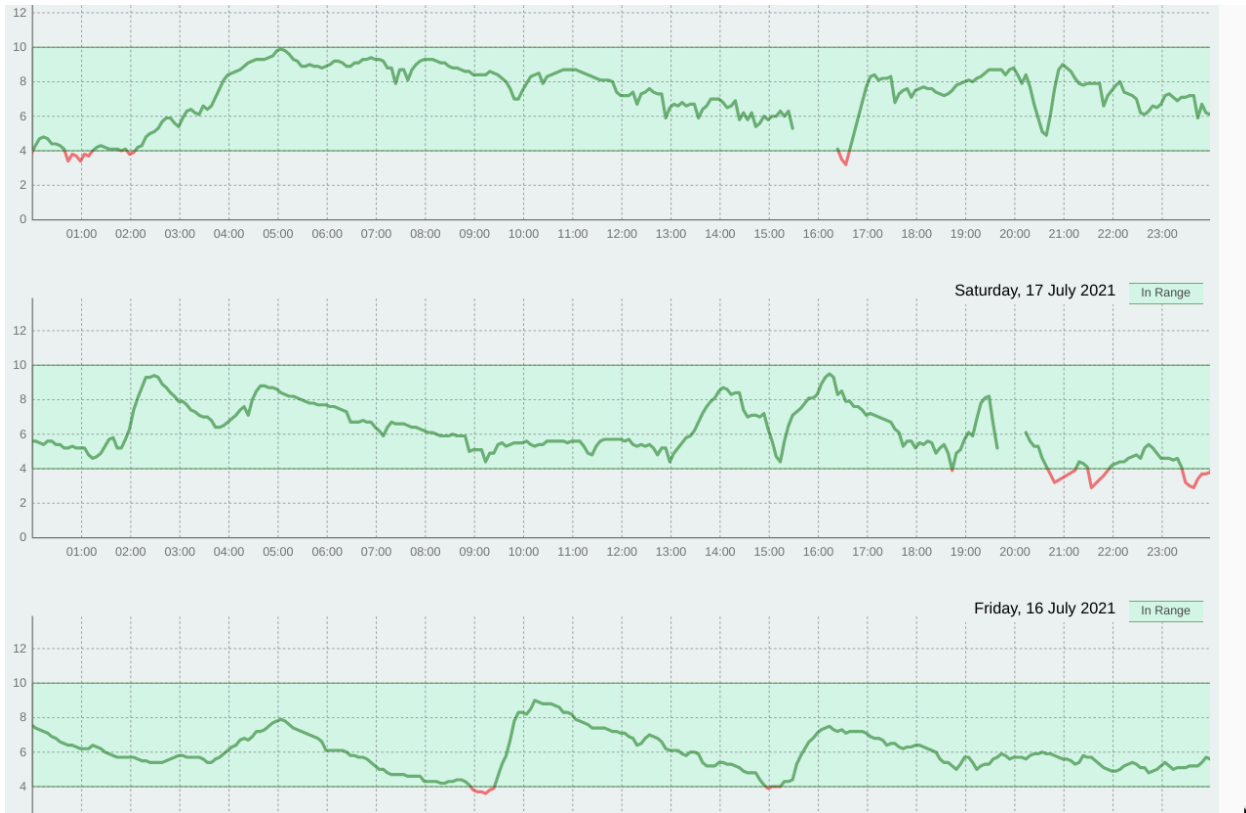
Common causes of unreliable CGM data include

1. The sensor is faulty = a lemon - BCDiabetes estimates this affects 1 in 20 sensors.
2. Sawtooth pattern = “noisy” signal (see the example below) -
 - a. The sensor needs to be changed (this usually happens when the sensor has been restarted after ten days but may occasionally happen on day 10)
 - b. Sensor sliding in and out - tape it down to prevent. Avoid using legs if running etc.
3. Bad insertion including being too close to muscle - avoid such sites
4. Compression low - from sleeping on the device - avoid sites subject to compression.
5. Bad calibration. Wash your hands to wash off any potential sugar. If you can't wash your hands, waste the first drop of blood. Calibrate only when the sugar is stable - ideally when the trend arrow is flat, borderline if the trend arrow is diagonal; never when the sensor arrow is straight up or straight down. Do not attempt calibration if sugar is < 3.0 or > 20.0.

Failing sensor - sawtoothing - The sensor below was on Day 10 - after changing at 10:00 AM the saw-tooth pattern disappeared.



Increasing saw-tooth artefact over 3 days (final day = day 9 of sensor) - see tracing below
Email from client “My Dexcom was not operating correctly Saturday night. I kept getting “Sensor Error” - Temporary issue. Wait up to 3 hours. At 9:36PM I got a low warning - 2.9. I did a finger prick test and I got 5.1. At 8:41PM I got a low warning. I did a finger prick test and I got 5.9”



Compression low:



Two simultaneous CGMS on Nightscout

