

ANZSPED POSITION STATEMENT ON THE USE OF CONTINUOUS GLUCOSE MONITORING SYSTEMS FOR CHILDREN AND ADOLESCENTS WITH TYPE 1 DIABETES AT SCHOOL AND PRESCHOOL

(Last Updated January 2025)

- Continuous Glucose Monitoring (CGM) is now part of routine diabetes management and will be used by many school aged children and adolescents with Type 1 Diabetes.
- CGM provides extra information about trends in glucose levels, but is not an essential management tool, unless part of a hybrid closed loop system
- CGM technology is to support student/parents and should be managed by student/parents
- CGM technology should cause minimal disruption to learning or classroom activities
- School Staff are not expected to do more than the routine care indicated in the students Diabetes Management Plan (DMP)

A CGM measures glucose levels continuously to provide more information about glucose patterns and trends throughout the day and night. The CGM works through a sensor inserted under the skin that measures the level of glucose in the interstitial fluid (fluid in the tissue). The sensor is disposable and changed by the student/parent every 7-14 days at home. The sensor readings are transmitted to a receiver (dedicated receiver, insulin pump, smartphone or iDevice). The receiver needs to be within close proximity to receive the sensor information, although data is stored for several hours if out of range. Although CGM is an excellent tool, for various reasons the sensor glucose (SG) may not always closely match the blood glucose (BG). Students should always have a blood glucose monitor with them at school.

Access to CGM equipment at school:

- Students using CGM require access to their receiver (dedicated receiver, insulin pump, smartphone or iDevice) at all times when at school, including during exams/tests. Students using diabetes technology should be exempt from the mobile phone ban in schools.
- It is the student's responsibility to carry their receiver at school. If the receiver is a mobile phone, this should not be used for anything other than CGM during school hours. For students in primary school this may be kept on the teacher's desk
- Insertion of the CGM sensor will be performed by the student/parent at home. School Staff are not required to reinsert the sensor if it falls out during school hours, but should keep the device safe and notify the parent/carer that the sensor is out as soon as is practicable

Monitoring of glucose levels and CGM alarms at school:

- School staff are not expected to do more than the routine glucose checks documented in the student's DMP
- School staff are not required to have a CGM follow app on their phone/computer
- Parents should ensure CGM alarms are kept to a minimum at school, so they do not disrupt the student's learning
 and school activities. A low glucose alarm is recommended, but high glucose alarms and trend alarms are generally
 best turned off at school
- While it is important that the student/school staff respond to a low glucose alarm (according to the student's DMP), it is the responsibility of the student/parent to monitor and respond to other alarms and CGM information
- Students using a Hybrid Closed Loop System (e.g. mylife YpsomedTM, Medtronic $780G^{TM}$, t:slim $X2^{TM}$) may be required to perform and enter an extra BG (when requested by the pump) at times other than routine checks.

Distant monitoring of CGM data by family members:

- If family members have access to CGM data during school hours, they should only contact the school, and/or the student if they can foresee an emergency situation
- The use of CGM should not lead to frequent phone calls to the school to make adjustments that would not ordinarily be required for any student with diabetes
- If the school has concerns about over-use of these apps, they should discuss with the family or seek advice from the student's treating Diabetes Team



Hypoglycaemia management:

- A low blood glucose level (hypoglycaemia) can occur at any time and may be detected in the following ways:
 - o Symptoms of hypoglycaemia
 - o BG < 3.9mmol/L on routine BG check
 - o CGM alert that SG < 3.9mmol/L
- If the student has symptoms of hypoglycaemia and receives a CGM alert that their SG is <3.9mmol/L, the low glucose level should be treated immediately according to the student's DMP
- If the student has symptoms of hypoglycaemia, but has a SG is above 3.9mmol/L and no alert has been received, the SG level should be immediately confirmed with a BG check. If the BG < 3.9mmol/L, the low glucose level should be treated immediately according to the student's DMP
- If the student receives a CGM alert that their SG is <3.9mmol/L, and they have no symptoms of hypoglycaemia, the low glucose level should be treated immediately according to the student's DMP
- The follow-up management of a low glucose level can be based on SG levels, if the SG indicates that the students SG is back above 3.9mmol/L within 15 minutes. If the SG remains below 3.9mmol/L a BG check is required to confirm the students glucose level is above 3.9mmol/L.

Prevention of hypoglycaemia:

 A SG (and SG trend) check prior to physical activity may be recommended to guide management of physical activity at school. This should be documented in the student's DMP

Hyperglycaemia management:

- A high glucose level does not require immediate attention unless the student is unwell
 - If a high SG is detected at the time of a routine check, it should be managed according to the student's DMP
 - o If a high SG is detected at other times <u>and the child is unwell</u>, it should be confirmed with a BG and treated according to the student's DMP
 - o If a high SG is detected at other times <u>and the child is well</u>, a BG can be delayed until the next routine check or class break

Insulin treatment decisions at school:

- Insulin dose calculations for injection or pump bolus doses at school can be made based on a SG level if this approach is documented in the student's DMP
- If insulin dose adjustments based on SG are recommended in the students' DMP, clear advice on when to check the SG with a BG should be documented. This may include high or low SG levels, rising or falling SG as indicated by trend arrows, or suspected SG inaccuracy

Hybrid Closed Loop Systems:

- Hybrid closed loop systems automatically adjust insulin delivery based on SG data, to help prevent low and high
 glucose levels. These devices are largely reliable and it is likely their use will increase and become more
 sophisticated in years to come. However, once more, it is not part of the role of school staff to check for pump
 suspensions or over-ride or re-set the pump
- Students using a Hybrid Closed Loop System ((e.g. mylife Ypsomed[™], Medtronic 780G[™], t:slim X2[™]) may be required to perform and enter an extra BG when requested by the pump at times other than routine checks

Statement developed in conjunction with the ANZSPED Diabetes Subcommittee, with writers Dr Shihab Hameed, Sharon Youde and Amelia Christie. JULY 2024 and finalised in January 2025.



Disclaimer:

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