



Virginia Diabetes Council

## **Continuous Glucose Monitoring in Schools**

### **VDC Position Statement**

The purpose of this document is to provide general information about continuous glucose monitoring (CGM) use in the school setting. During the past 5 years, an increasing number of children and adolescents with type 1 diabetes and insulin-treated type 2 diabetes have adopted CGM use as part of their daily diabetes management. The ADA states that *“CGM should be considered in all children and adolescents with type 1 diabetes as an additional tool to help improve glucose control”* thus improving their quality of life and preventing long term complications.

### **Diabetes Team Approach**

As parents, teachers, doctors, and school health staff work together as a team to serve our students with type 1 diabetes, we cannot emphasize enough the central role of communication and trust. School nurses and staff should be knowledgeable about diabetes and regularly communicate with the parent/guardian when blood glucose levels are outside of target range so that trends can be identified and addressed. Parents/guardians should trust the system put in place by their children’s provider in the DMMP/healthcare provider orders and understand that the school and home environments are fundamentally different.

Each child's health and safety are everyone's top priority. Parents are encouraged, as much as possible, to "unplug" while their children are in school. School nurses and staff have been educated about diabetes and parents can be confident in the school team’s ability to provide diabetes care appropriately in accordance with the DMMP/healthcare provider orders.

Providers should customize DMMPs with an eye toward drawing bright lines (as simply as possible) and eliminating gray-area decision making. Above all, we must educate and nourish the whole child and foster developmentally appropriate independence in the least restrictive manner possible. While the school team should be prepared to help manage diabetes, it must be understood that students are not defined by diabetes. While meeting the diabetes needs of students with type 1 diabetes is essential for the health and safety of the student, diabetes management at school should be implemented in a manner to minimize distraction from learning and to foster student participation. Team collaboration optimizes a student’s academic success and normal growth and development.

### **Legal Protections for Students with Diabetes**

Federal and Virginia state laws provide legal protections for students with diabetes. Under these, public schools and most private schools are prohibited from discriminating against students with disabilities, including diabetes. Schools have an obligation under these laws to provide diabetes care to students to enable them to participate in all school-sponsored activities and to thrive in the school setting. School nurses and staff, as appropriate, should be trained and prepared to assist and support use of CGM technology in school.

### **Recommendations for CGM Use at School**

Below are general standards for the use of continuous glucose monitoring devices in schools and should be used in compliance with the Diabetes Medical Management Plan (DMMP)/healthcare orders and the Individualized Health Plan. The child's diabetes healthcare provider may individualize and indicate exceptions to the below standards on the child's DMMP/healthcare orders.

- CGM systems use a tiny sensor inserted under the skin to monitor glucose levels (ongoing or short term) in interstitial fluid. Some CGMs need to be calibrated using a finger stick glucose reading when readings are stable, approximately two to three times/day, typically outside of school. Parents/independent children are responsible for changing sensor/site. Calibration may need to occur in school if prompted by CGM and should ideally occur when the blood glucose levels are stable (not rising or falling rapidly) typically before meals, and not after meals.
- In the school setting, a school nurse or delegated staff should respond to low and high BG alarms rather than the constantly fluctuating trends and numbers.
- The FDA has approved non-adjunctive use of the Dexcom G5 (requires calibration 2x/day), G6 CGM and Freestyle Libre CGM (does not need calibration) which means that CGM can be used directly to make treatment decisions without needing to validate with finger stick blood glucose (BG) values as indicated by healthcare provider in DMMP/healthcare orders.
- The benefits of a CGM in the school setting includes real-time, dynamic glucose information, which enhances the safety of the child and their diabetes control. The school nurse and school staff should support the use of CGMS and establish parameters so that the student can fully participate in all school-sponsored activities, thereby, enhancing their education. The use of the CGM in the school setting includes setting alarms for blood glucose levels that require an immediate action/response. This will help the student avoid alarm fatigue and enhance learning and participation. Alarms should be set for low BG and high BG when treatment/action is needed (for example: sensor glucose is <80 or >250).
- School staff are responsible for keeping all children safe in the school setting. School staff do not have the staffing capacity to support unique requests for frequent glucose pattern management techniques at school (e.g. sugar surfing). Diabetes care at school will be provided in accordance with the regimen prescribed in the student's DMMP/healthcare orders.
- Remote monitoring of the CGM in the school setting by staff is not required as the child is usually adult supervised by trained staff and alarms are used to identify urgent glucose levels requiring action. However, in certain unique cases (e.g. preschool age, non-verbal, impaired cognition) monitoring/remote monitoring may be appropriate and the school nurse along with the Section 504 Team, will do an assessment and determine the accommodations based on the student's individual need(s) and the DMMP/healthcare orders. When determined appropriate, the school nurse will indicate these accommodations on a Section 504 plan and the Individualized Health Plan.



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- Parents are responsible for setting the alarms and notifying the school nurse of the parameters. Alarms should be set for when treatment is needed and to minimize disruption of the student’s participation in school-sponsored activities/education.
- Trend Arrows: The health care provider may indicate on the DMMP/healthcare orders the use of trend arrows in determining treatment for hypoglycemia. See example below:
  - CGM 70-80 with 1 arrow facing down, give 7.5 grams of carbohydrates
  - CGM 70-80 with 2 arrows facing down, give 15 grams of quick-acting sugar
  - CGM 70-80 with level arrow, consider giving complex carb snack (10-15 grams of carbs) without insulin bolus as indicated on DMMP

*Adapted with permission from the Colorado Kids with Diabetes Care and Prevention Collaborative*

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Code of Virginia 8.01-225 (A)(9), Persons rendering emergency care exempt from liability  
Code of Virginia 22.1-274(D,E), School health services – if one or more students diagnosed as having diabetes attend such school, at least two employees have been trained in the administration of insulin and glucagon.  
Code of Virginia 54.1-2901(A)(13,20,26), Exceptions and Exemptions generally  
Code of Virginia 54.1-3005 , Specific Powers and Duties of Board of Nursing  
Code of Virginia 54.1-3408 (H,M), Professional Use by Practitioners
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11. **ADA 7.12** Continuous glucose monitoring (CGM) should be considered in all children and adolescents with type 1 diabetes, whether using injections or continuous subcutaneous insulin infusion, as an additional tool to help improve glucose control. [https://care.diabetesjournals.org/content/43/Supplement\\_1/S77](https://care.diabetesjournals.org/content/43/Supplement_1/S77)
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