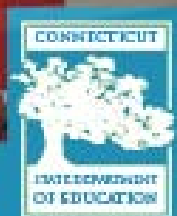


**Guidelines for
Blood Glucose
Self-Monitoring
In Connecticut
Schools**



CONNECTICUT STATE DEPARTMENT OF EDUCATION

Introduction

Diabetes mellitus is a chronic disease that interferes with the body's ability to produce or use insulin, impairing the ability to metabolize food. Diabetes management balances careful control of diet, exercise and medication. Frequent monitoring or checking ¹ of blood glucose levels is critical to diabetes management. Timely blood sugar monitoring and prompt intervention are necessary to prevent life threatening hypoglycemic episodes. Equally important², close monitoring to maintain blood glucose levels within a specified range is essential to prevent long-term complications such as heart disease, kidney failure, blindness and serious impairment of circulation that may require amputations.

The benefits of allowing blood glucose self-monitoring are significant. Students learn better when their blood glucose levels are within the proper range. Students who self-monitor in the classroom or in other locations outside the school health office can more readily adjust their blood sugar levels. They spend less time out of class and thus lose out on fewer learning opportunities provided to children without diabetes. They also gain independence and self-confidence and experience fewer stigmas when monitoring is treated as a regular occurrence.

The State Board of Education encourages families, schools and medical providers to work together to develop district policies and procedures. These policies and procedures should recognize the capabilities of students to participate in the management of their diabetes, with the ultimate goal of independent management. School districts should also recognize that decisions about self-monitoring should be made on a case-by-case basis, with the participation of the family, school, medical providers and with respect for individual needs and preferences of students regarding privacy and confidentiality.

For more information on the Connecticut State Department of Education's ***Guidelines for Blood Glucose Self-Monitoring in School*** contact:

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Notes

1. Although the terms "blood glucose testing" and "blood glucose checking" are also common, these guidelines use the term monitoring. Please note that these guidelines cover blood glucose monitoring only, not urine tests for ketones.

2. The landmark *Diabetes Control and Complications Trials* (DCCT) demonstrate that better glucose control significantly decreases the risk for long-term complications. For example, risk of diabetic eye disease was reduced by 76%; kidney disease by 50%; and nerve disease by 60%. The results were so striking that investigators ended the study early so conventionally treated patients could also realize the benefits of intensive diabetes management.

The Law

Section 1 of Connecticut Public Act No. 12-198 (a) states that “No local or regional board of education may prohibit blood glucose self-testing by children with diabetes who have a written order from a physician stating the need and the capability of such child to conduct self-testing. No local or regional board of education may restrict the time and location of blood glucose self-testing by a child with diabetes on school grounds who has written authorization from a parent or guardian and a written order from a physician stating that such child is capable of conducting self-testing on school grounds.”

Schools must be knowledgeable of all relevant state and federal laws and how these laws impact school district policies in this area. The most relevant federal laws include: *The Americans with Disabilities Act (ADA)*, *Section 504 of the Rehabilitation Act of 1973*, *The Individuals with Disabilities Education Act of 2004 (IDEA)*, and *The Family Education Rights and Privacy Act of 1974 (FERPA)*. Public schools in Connecticut are required to meet standards set by the Occupational Safety and Health Administration (OSHA), a regulatory agency within the U.S. Department of Labor 3. These standards include the need for procedures to address possible exposure to blood-borne pathogens 4.

Notes

3. OSHA regulates employer/employee conduct, and does not apply to students in schools.

4. Schools must adhere to *Universal Precautions* designed to reduce the risk of transmission of blood-borne pathogens, which include the use of barriers such as surgical gloves and other protective measures when dealing with blood and other body fluids or tissues.

Guidelines

All students with diabetes need an individualized plan to address their health and safety needs in school settings. This plan may be a Section 504 accommodation plan or an Individualized Health Care Plan (IHCP) with an Emergency Care Plan (ECP) (see [appendix A](#)).

According to Section 1 of Connecticut Public Act No. 12-198, “No local or regional board of education may prohibit blood glucose self-testing by children with diabetes who have a written order from a physician stating the need and the capability of such child to conduct self-testing. No local or regional board of education may restrict the time and location of blood glucose self-testing by a child with diabetes on school grounds who has written authorization from a parent or guardian and a written order from a physician stating that such child is capable of conducting self-testing on school grounds.” If permitted by local and regional boards of education, schools may accept written orders by advance practice registered nurses or physician assistants stating the need and the capability of children to conduct self-testing, including the time and location of blood glucose self-testing by a child with diabetes on school grounds.

The State Board of Education recommends that district policies regarding self-monitoring of blood glucose levels in school settings address the following issues:

- Determine a process for developing and implementing an individualized plan for the student:
 - identify a core team to create the plan. This team should include, at a minimum, the school nurse, appropriate teacher(s), the student (if appropriate) and parent(s) or guardian(s) or other family members. Other possible members include the student’s health care provider, an administrator and other school staff;
 - obtain current health information from the family and the student’s health care provider(s), including how often the child should monitor his or her blood glucose level;
 - based on the student’s health status, determine the minimum frequency with which health information will be reviewed and updated; and
 - clarify the roles and responsibilities of each member of the core team (see [appendix B](#)).
- Define expectations for communication between relevant school staff, family and the student’s health care provider that includes:
 - documentation by the student’s health care provider of health needs which may be included in appropriate authorizations for medications and procedures to be performed at school;
 - written permission for school health staff to communicate with the child’s health care provider regarding diabetes management; and
 - clear expectations for minimum frequency of communication.
- Address safety concerns, including:
 - specific procedures for disposal of lancets and any material exposed to blood, which meet OSHA *Universal Precaution* standards;
 - procedures for transportation of monitoring equipment;
 - storage, security and access to monitoring supplies;
 - identification of signs and symptoms of excessively high or low blood sugar levels and appropriate responses;
 - emergency responses and plans;
 - access to food and drink;
 - replacement of equipment and supplies;
 - considerations for safe self-monitoring on school grounds including:
 - completion of a self-monitoring checklist and documentation of such assessment by the school nurse (see [appendix C](#));
 - team discussion of the self-monitoring checklist;
 - completion of a student agreement (see [appendix D](#)); and
 - accommodations during field trips, athletics and unusual circumstances such as lockdowns or building closures.
- Establish procedures ensuring that the appropriate people (including staff members such as teachers, physical education teacher, custodian, bus driver and substitute staff) are familiar with

students' 504 plan, IHCP and ECP and are properly "educated" regarding diabetes and the importance of timely treatment. This education should include:

- an understanding of diabetes;
 - the signs and symptoms of high or low levels of blood glucose;
 - emergency responses to low and high blood sugar levels;
 - familiarity with blood glucose medications and equipment;
 - location(s) for self-monitoring;
 - possible adverse effects of high or low blood glucose levels on learning; and
 - OSHA *Universal Precaution* standards.
- Ensure periodic assessments of the effectiveness of the individual plan, including review of the student's competency level and changes in the school environment. Assessments should occur:
 - at least annually with the school team, including the parents or guardians and when appropriate, the student; and
 - more frequently if there are changes in the student's diabetes management plan, changes in the self-monitoring abilities of the student or whenever an adjustment to the plan is appropriate. If the IHCP is separate from the Section 504 Accommodation Plan, then the team may make modifications to the IHCP without formal review of the 504 plan.

For more information, please contact [Stephanie Knutson](#) at 860-807-2108.

Appendixes

Appendix A: Individualized Plans

Individualized Health Care Plans (IHCPs) are usually developed for students with multiple health needs or whose health needs require daily intervention. These plans describe how the school intends to meet an individual child's daily health and safety needs in all contexts, while under the care of the school. IHCPs are developed by the school nurse, in conjunction with parents or guardians, the student, healthcare providers and other school personnel. An IHCP includes:

- a summary of health assessments; and
- a nursing diagnosis, goals and plans of action covering the range of possible concerns.

IHCPs should also address student needs outside of the normal school routine. Considerations for students with diabetes include:

- meal times;
- changes in schedules;
- lunch and recess times;
- school transportation;
- transitions to after school programs;
- athletic and extracurricular activities;
- accommodations for test-taking;
- field trips; and
- transitions to new schools or school buildings.

The IHCP is also used to document interventions and evaluate outcomes. IHCPs can and should be updated at least annually and more frequently, as necessary to keep pace with changing student needs and school environment.

Emergency Care Plans

Children with special health care needs should also have a written Emergency Care Plan (ECP) that provides specific directions about what to do in a medical emergency or safety emergency such as fire drill or lockdown. The ECP is often part of the IHCP. This written plan helps the school nurse, school personnel and emergency responders react to an emergency situation in a prompt, safe and individualized manner.

ECPs should provide emergency contacts and address what to do:

- For high and low blood glucose levels;
- If an insulin pump malfunctions or becomes dislodged; and
- To ensure access to equipment and medication if not carried by student, e.g. during lockdown or fire drill.

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Appendix B: Sample Core Team Roles and Responsibilities

School Nurses

- Participate in core team meetings.
- Conduct nursing assessment for Individualized Health Care Plan (IHCP).
- Conduct nursing assessment for section 504 accommodation plan, if appropriate.
- Develop section 504 accommodation plan and IHCP with the core team.
- Coordinate development of Emergency Care Plan (ECP).
- Ensure family provides medical supplies, materials and snacks needed at school.
- Obtain necessary physician orders.

- Conduct periodic and ongoing reviews of student needs and update IHCP & ECP as needed.
- Plan and implement diabetes training for appropriate school staff.
- Work with family and health care providers to reinforce and strengthen student self-management skills and promote independence.

Teachers

- Participate in core team meetings.
- Work with core team to implement the section 504 accommodation plan and IHCP.
- Recognize signs and symptoms of hypoglycemia and hyperglycemia.
- Be prepared to respond to signs and symptoms as identified in the IHCP.
- Provide the student with a supportive classroom environment.
- Provide classroom accommodations as outlined in the section 504 accommodation plan and IHCP.
- Participate in diabetes education, as specified in the student plan.
- Communicate with school team as outlined in the section 504 accommodation plan and IHCP.

Administrators

- Understand state and federal laws.
- Participate in the development of school policy.
- Promote a supportive learning environment for all students.
- Support and arrange for staff training.
- Work with core team to implement the individual plan as needed.
- Respect the student's confidentiality and right to privacy.
- Support and facilitate ongoing communication between family, school staff and community members.

Family Members

- Notify the school of student health needs.
- Provide written medical documentation, written authorizations and all necessary medications, equipment and snacks.
- Work as a full partner with the core team to develop a section 504 plan and IHCP.
- Educate child in self-management skills and promote independence.
- Review plans with schools at least annually and more frequently as needed.

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Appendix C: Sample Self-Monitoring Checklist

[Sample Self-Monitoring Checklist \[PDF\]](#)

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Appendix D: Sample Agreement Concerning Blood Glucose Self-Monitoring

[Sample Agreement Concerning Blood Glucose Self-Monitoring](#)

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Appendix E: Recommended Steps for Blood Glucose Monitoring

1. Gather supplies.
2. Wash hands with warm soapy water.
3. Load device with lancet.
4. Wipe finger or other target area with warm soapy water. Let dry. Use alcohol swabs only if warm water is not available.
5. Hold lancet device to the side of the fingertip or other area, and press button to puncture skin.

6. Turn finger or area of punctured skin down to get a full drop of blood. If a larger drop is necessary, squeeze the area around the puncture.
7. Put full drop of blood on strip pad.
8. Follow directions for use of monitor or read the result on the bottle of strips.
9. Record results on log sheets provided by parent/guardian or school nurse.

Adapted from: Provided for general information only. Students should follow the instructions of their individual health care providers.

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Appendix F

Resources on the law

- American School Health Association. 2000. *Guidelines for Protecting Confidential Student Health Information*.
- American Diabetes Association. 2010. *Your School & Your Rights: Protecting Children with Diabetes Against Discrimination in Schools & Day Care Centers*.
- Champion, C. 1999. *Occupational Exposure to Blood-Borne Pathogens: Implementing OSHA Standards in a School Setting*.
- Connecticut State Department of Education, 2003. *A Parent's Guide to Special Education in Connecticut*.
- Connecticut State Department of Education, 2000. *Section 504 of the Rehabilitation Act of 1975: Procedural Safeguards*.
- Connecticut Department of Labor, Division of Occupational Safety and Health (CONN-OSHA)
- Public Act No. 12-128 *An Act Concerning the Administration of Medicine to Students with Diabetes, the Duties of School Medical Advisors, the Availability of CPR and AED Training Materials for Boards of Education and Physical Exercise During the School Day*.
- The United States Department of Education Web site has a wealth of information about FERPA, and IDEA. Go to <http://www.ed.gov>, and type the relevant acronym into the search window.

Other Resources

- American Association of Diabetes Educators
- American Diabetes Association
- Children with Diabetes
- Diabetes Management in the School Setting (Adopted January 2012)
- Juvenile Diabetes Research Foundation International <http://www.jdrf.org>
- CSDE 2012. *Learning and Diabetes: A Resource Guide for Connecticut Schools and Families*
- National Association of School Nurses. 2012. *Position Statement: Diabetes Management in the School Setting*.
- National Association of School Nurses. 2012. *Position Statement: Individualized Healthcare Plans (IHP)*.
- National Diabetes Education Program
- National Diabetes Information Clearinghouse, a service of the National Institute of Diabetes and Digestive and Kidney Diseases at NIH, offers a wide range of resources in English and Spanish on

treatment, complications, statistics and research, including on the landmark [Diabetes Control and Complications Trial](#).

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