

Protocol for Managing Diabetes in Polk County Public Schools

Diabetes is a serious, chronic disease that impairs the body's ability to use food. Insulin, a hormone produced by the pancreas, helps the body convert food into energy. In people with diabetes, either the pancreas does not make insulin or the body cannot use insulin properly.

Definitions:

Diabetes mellitus (MELL-ih-tus) is a condition characterized by **hyperglycemia (high blood sugar)** resulting from the body's inability to use blood glucose for energy. Over many years, high blood glucose levels can cause damage to the eyes, kidneys, nerves, heart and blood vessels.

In **Type 1 diabetes**, the pancreas no longer makes insulin. Although only 5% of people with diabetes have this form of the disease, the majority of school-age children with diabetes have type 1. Without insulin, the body's main energy source – glucose – cannot be used as fuel. Instead, glucose builds up in the blood.

In **Type 2 diabetes**, either the pancreas does not make enough insulin or the body is unable to use insulin correctly. Type 2 diabetes, typically afflicting obese adults, has been increasing in youth, possibly due to the increase in obesity and decrease in physical activity in young people.

Students with type 1 diabetes must receive insulin through either injections or an insulin pump. With the help of insulin therapy and other treatments, even young children with type 1 diabetes can learn to manage their condition and live long, healthy, happy lives.

Students with Type 2 diabetes may be able to control their disease through diet and exercise alone or may require oral medications and/or insulin injections.

Hypoglycemia (low blood sugar) is the most common immediate health problem for students with diabetes. It occurs when the body gets too much insulin, too little food, a delayed meal, or more than the usual amount of exercise. **Severe hypoglycemia, which is rare, may lead to unconsciousness and convulsions and can be life-threatening if not treated promptly.**

Hyperglycemia (high blood sugar) occurs when the body gets too little insulin, too much food, or too little exercise. It may also be caused by stress or an illness such as a cold. If untreated over a period of days, hyperglycemia and insufficient insulin can lead to a serious condition called **diabetic ketoacidosis (DKA)** which is characterized by nausea, vomiting and a high level of ketones in the blood and urine. **DKA can be life-threatening and requires immediate medical attention.**

Call 911 and follow emergency plan if a student who has diabetes has a seizure or becomes unconscious!

Signs and symptoms of **hypoglycemia (low blood sugar)** may include one or more of the following:

- Tremors
- Sweating
- Confusion
- Inattention
- Increased heart rate
- Headache
- Unexplained behavior
- Convulsions (severe hypoglycemia)
- Light-headedness
- Irritability
- Drowsiness
- Falling asleep inappropriately
- Temper tantrums
- Change in mental status
- Loss of consciousness (severe hypoglycemia)

Signs and symptoms of **hyperglycemia (high blood sugar)** may include one or more of the following:

- Thirst
 - Frequent urination
 - Blurry vision
 - Unexplained behavior
 - Loss of concentration
- Signs of diabetic ketoacidosis:**
- High level of ketones
 - Fruity/sweet breath
 - Stomach cramps
 - Nausea/vomiting

The 2010 Florida Legislature passed House Bill (HB) 747 – Treatment of Diabetes and the bill was signed into law on May 11, 2010. The legislation amends section 1002.20, Florida Statutes, to add diabetes management.

Key provisions of this legislation include the following:

- Prohibits school districts from restricting the assignment of a student who has diabetes to a particular school on the basis that the student has diabetes;
- Permits students with diabetes to carry diabetic supplies on their person and attend to the management and care of their diabetes while in school, participating in school sponsored activities, or in transit to or from school if the school principal has been provided written parental and physician authorization;
- The State Board of Education (SBE), in cooperation with the Department of Health (DOH), shall adopt rules to encourage each school in which a student with diabetes is enrolled to have personnel trained in routine and emergency diabetes care;
- The SBE, in cooperation with the DOH, shall also adopt rules for the management and care of diabetes by students that shall include provisions to protect the safety of all students from the misuse or abuse of diabetic supplies or equipment;
- A school district, county health department, public-private partner, and their employees and volunteers shall be indemnified (held harmless) by the parent of a student authorized to carry diabetic supplies or equipment for any and all liability with respect to the student's use of such supplies and equipment;
- Legislation went into effect July 1, 2010.

KEY POINTS IN OVERSEEING STUDENTS WITH DIABETES

According to Polk County School Board policies and procedure, if a student with diabetes requires assistance or supervision in self-administering insulin or calculating dosage, please note:

- Only licensed **medical personnel are permitted** to administer and/or supervise the administration or calculation of insulin.

- Non-licensed staff, including non-licensed **Health Contacts are not permitted** to:
 - Supervise a student's self-administration of insulin
 - Administer a student's insulin
 - Determine or confirm student's insulin dosage based on carbohydrate count or sliding scale regardless of whether insulin is administered by insulin pen, pump or syringe

- Example: A **licensed nurse is required** if the Diabetes Medical Management Plan or Authorization for Medication/Treatment indicates that the student may be receiving insulin injections at school and the student is **not** able to do the following tasks without assistance or supervision:
 - Determine correct dose of insulin
 - Give own injection of insulin (whether by pen, pump or syringe)
 - Draw up correct dose of insulin
 - Determine dose per sliding scale
 - Calculate insulin dose for carbohydrate intake
 - Add carbohydrate dose to correction dose

If the student with diabetes will not be receiving insulin at school but needs assistance or supervision in other aspects of diabetes management, non-licensed **Health Contacts are permitted** with medical authorization and specific training by the School Health Registered Nurse to:

- Test and monitor blood glucose using a glucometer
- Test for ketones
- Count carbohydrate intake
- Administer glucagon

PURPOSE

The purpose of this document is to provide basic information about diabetes to help ensure that students with diabetes are provided a safe learning environment and are integrated into school activities. Our purpose is to maintain and regularly update a system-wide protocol for responding to their needs. A system-wide effort requires the cooperation of all groups of people within the system. The sections below highlight the major responsibilities of the various groups, but each child's plan will be individualized and therefore not all responsibilities can be spelled out in this protocol.

Responsibilities of the following School Community members will be addressed:

1. Parents/Guardians
2. Students
3. Healthcare Provider
4. School Principal and School Administrators
5. School Health Registered Nurse (Florida Department of Health in Polk County RN/Polk County School Board RN)
6. Clinic Staff (Clinic Nurse/Clinic Para/Clinic Health Contacts)
7. Teachers and Other School Staff
8. School Nutrition Food Services Manager/Dietitian/Staff
9. School Transportation Staff

RESPONSIBILITIES OF PARENTS / GUARDIANS

- Notify clinic staff as soon as possible and complete and/or update the Medical Information Form when a student is newly diagnosed or upon school entry.
- Provide and maintain current emergency contact phone numbers.
- Provide the school with the health care provider's written medical orders related to the student's diabetes management and any new medical orders or changes in the medical management that must be implemented at school. It is highly recommended that the parent/guardian work with the health care provider to complete a Diabetes Medical Management Plan.
- Participate in the development of the student health care/emergency plan.
- Provide and transport to the school all medications, equipment, supplies and carbohydrate snacks associated with the medical management of the student's diabetes.
- Provide prescribed medication with appropriate Authorization for Medication/Treatment and/or Diabetes Medical Management Plan; include a photo of student.
- Assume responsibility for the maintenance and calibration of all medical equipment.
- It is highly recommended that parents provide the student with a Medic Alert ID that is worn daily.
- Work with healthcare provider, school nurse, and student to promote student's self-sufficiency in management of their diabetes (as developmentally appropriate), including:
 - being aware of symptoms of hypoglycemia and hyperglycemia;
 - learning to perform blood glucose testing and respond appropriately to results;
 - encouraging and educating student how and when to tell an adult they may be having a diabetes-related problem;
 - encouraging student to wear a medical alert bracelet;
 - encouraging student to carry and administer own insulin by syringe, pen or pump as soon as able.

- Encourage student to be proactive in their own plan of care, such as informing new staff and teachers of their emergency plan and health care needs (as developmentally appropriate).
- Inform administration of bullying and threats made by other students.

RESPONSIBILITIES OF STUDENT

- Take responsibility, as developmentally appropriate, in managing his/her diabetes.
- Learn to recognize symptoms of hypoglycemia (low blood sugar) and hyperglycemia (high blood sugar).
- Know your target range and seek adult help immediately when blood glucose levels are suspected or verified to be either above or below the target range.
- Participate with school personnel in developing and implementing plan of care.
- Be proactive in their plan of care, such as informing new staff and teachers of their emergency plan and health care needs (as developmentally appropriate).
- Demonstrate competence, as developmentally appropriate, in blood glucose monitoring and insulin administration in the school setting.
- If self-administration of insulin is ordered by the healthcare provider, a Medication Contract will be completed with a demonstration of competence in self-administration.
- Practice responsible individual use and safe keeping of medication (self-care).
- Wear Medic Alert ID daily when provided by parent/guardian.
- Awareness of their individual health care /emergency plan.
- Follow Emergency Plan when indicated.
- Observe all local policies and procedures related to blood and body fluid precautions and sharps disposals.
- Inform administration of bullying and threats made by other students.

RESPONSIBILITIES OF HEALTH CARE PROVIDER

- Provide the school with appropriate medical information, including written orders for diabetes medical management.
- Educate the student and the parent/guardian regarding management of diabetes.
- Determine the level of self-care allowed based on the student's knowledge, developmental level and abilities.
- Document student's ability or inability to perform glucose monitoring, carry diabetic supplies, and self-administer insulin through syringe, pen or pump.
- Collaborate in the development of the student health care plan.
- Provide child-specific consultation as needed for diabetes management.

RESPONSIBILITIES OF PRINCIPAL AND SCHOOL ADMINISTRATORS

- Accommodate the needs of students with diabetes in order to ensure opportunity for full participation in school activities.
- Be knowledgeable and follow district policies and all applicable federal and state laws governing the educational requirements for students with special health needs.
- Designate and maintain a minimum of 3 willing staff members as health contacts.

- Provide a licensed nurse for students with diabetes who need assistance or supervision with insulin administration or calculation of insulin doses.
- Require designated school staff to complete and maintain required training for Medications Administration and Diabetes Protocol.
- Understand that students with diabetes are permitted to carry diabetic supplies on their person and attend to the management and care of their diabetes while in school, participating in school sponsored activities, or in transit to or from school if the school principal has been provided written parental and physician authorization.
- Ensure that substitute teachers are aware of emergency procedures.
- Be aware of the emergency plans of students with diabetes and implement according to plan when necessary.
- Assure that 911 is called if a student who has diabetes loses consciousness, is administered glucagon or has a seizure.
- Provide physical resources on campus to safely execute all accommodations during school-sponsored activities as noted in the student's individualized health care plan.
- Reinforce non-food rewards.
- Enforce school bullying policy.
- Provide effective communication device between students who have diabetes and school nurse, or designated contact, in case of emergency, i.e., walkie-talkies.
- Assure that students with diabetes who exhibit or complain of signs or symptoms of hypoglycemia (low blood sugar) or hyperglycemia (high blood sugar) are accompanied to the clinic by an adult, if the student is ambulatory and moving the student would not cause further harm.

RESPONSIBILITIES OF SCHOOL HEALTH REGISTERED NURSE

- Maintain a current knowledge base and update skills and abilities related to the medical management of diabetes in the school-age population.
- Provide appropriate diabetes education for clinic staff, school staff, and bus drivers.
- Organize and facilitate meetings with the student's parent/guardian and other key school staff to discuss planning, development, implementation and updates of the student's individualized health care plan.
- Review, in collaboration with the clinic staff, the list of students identified as high risk including those who have diabetes.
- Develop and maintain student's individualized health care plan to include diabetes management in the classroom, cafeteria, during school-sponsored activities, and on school bus if applicable.
- Train clinic nurse/para and health contacts in administration of glucagon, testing of glucose and ketones, and counting of carbohydrates, according to doctor's orders.
- Assess student competency and responsibility in self-management in the school setting as appropriate.
- Establish and maintain a working relationship with the student's parents/guardians and health care provider and act as a liaison between the student's authorized health care provider and the school.
- Reinforce to staff that 911 must be called if student with diabetes becomes unconscious, has a seizure, or if glucagon is administered.
- Be aware of and inform administration of bullying and threats made by other students.

RESPONSIBILITIES OF CLINIC STAFF

- Complete required training for Medications Administration and Diabetes Protocol.
- Receive training by the school registered nurse about the signs and symptoms of hypoglycemia and hyperglycemia, ketone monitoring, glucose testing and glucagon administration if indicated.
- Demonstrate competency in the use of student-specific glucose monitoring device, blood glucose testing, and, if a licensed nurse, insulin pens and/or other equipment used to administer insulin.
- Be knowledgeable of and follow Protocol and Emergency Plan for students with diabetes.
- Assist with arrangements to assure that all insulin injections and blood glucose monitoring/testing is done in the health room according to Polk County School Board Exposure Control Plan and school board procedures *unless otherwise specified in the student's individualized health care plan*.
- Be aware of the medical services and level of skill that a health contact or clinic nurse is allowed to provide and never attempt to provide care that is beyond his/her level of skill or that is specifically prohibited by law or School Board policies and procedures.
- Inform parents/guardians of a student with diabetes that a meeting will be scheduled with the parents/guardians, the school health registered nurse, and appropriate school staff to develop the individualized health care plan/emergency plan.
- Inform parents that students with diabetes are permitted to carry diabetic supplies on their person and attend to the management and care of their diabetes while in school, participating in school sponsored activities, or in transit to or from school if the school principal has been provided written parental and physician authorization.
- Maintain a functioning means of communication such as intercom, walkie-talkie or cell phone to activate the school's emergency response plan.
- Arrange for a student to be accompanied by an adult, not another student, to the health room if exhibiting or complaining of symptoms of hypoglycemia or hyperglycemia, if the student is ambulatory and moving the student would not cause further harm.
- Understand and reinforce to staff that 911 must be called if student with diabetes becomes unconscious, has a seizure, or if glucagon is administered.
- Understand and reinforce to staff that the student-specific emergency plan must be followed, including calling 911 when indicated on the emergency plan.
- Review Medical Information Forms and contact parents to verify information and to arrange case conference with school registered nurse for students with diabetes.
- Compile a list of high-risk students identified through Medical Information Forms and/or information provided by the medical provider including those students who have diabetes.
- Alert school nurse of any students who have diabetes.
- Alert Health Services registered nurses of any students who have diabetes and provide copies of the student's diabetes medical management plan/emergency plan and/or medical authorization.
- Encourage student's self-sufficiency, as developmentally appropriate, in diabetes management.
- Inform, with parent's permission, teachers, bus drivers, food service and other staff members of the emergency plan.
- Document appropriately and in a timely manner all health services provided to students.

- Request photo to attach to student's medical authorization.
- Be aware of and inform administration of bullying and threats made by other students.

RESPONSIBILITIES OF TEACHERS AND OTHER SCHOOL STAFF

- Be aware of which students have diabetes and cooperate with the accommodations listed in the individualized health care plan/emergency plan.
- Attend meetings with the student's parent/guardian and other key school staff when requested by the school registered nurse.
- Recognize the signs and symptoms of hypoglycemia (low blood sugar) and hyperglycemia (high blood sugar).
- Arrange for students with diabetes who exhibit or complain of signs or symptoms of hypoglycemia or hyperglycemia to be accompanied to the clinic by an adult, if the student is ambulatory and if moving the student would not cause further harm.
- Provide the student with a safe location to monitor blood glucose or administer insulin in accordance with the student's individualized health care plan.
- Understand that students with diabetes are permitted to carry diabetic supplies on their person and attend to the management and care of their diabetes while in school, participating in school sponsored activities, or in transit to or from school if the school principal has been provided with written parental and physician authorization.
- Use non-food items for rewards.
- Communicate with clinic nurse or clinic para in advance of a field trip or when an adjustment may be required in a meal plan or insulin administration, ex: a class party.
- Leave clear instructions for any substitute regarding the special needs or emergency plan for the student.
- Be aware of and inform administration of bullying and threats made by other students.

RESPONSIBILITIES OF SCHOOL NUTRITION MANAGER

- Be aware of which students have diabetes and cooperate with the accommodations listed in the individualized health care plan/emergency plan.
- Attend meetings with the student's parent/guardian and other key school staff when requested by the school registered nurse.
- Recognize the signs and symptoms of hypoglycemia (low blood sugar) and hyperglycemia (high blood sugar).
- Arrange for students with diabetes who exhibit or complain of signs or symptoms of hypoglycemia or hyperglycemia to be accompanied to the clinic by an adult, if the student is ambulatory and moving the student would not cause further harm.
- Maintain a functioning means of communication in the lunchroom/cafeteria such as intercom, walkie-talkie or cell phone to activate the school's emergency response plan.
- Understand that students with diabetes are permitted to carry diabetic supplies on their person and attend to the management and care of their diabetes while in school, participating in school sponsored activities, or in transit to or from school if the school principal has been provided with written parental and physician authorization.
- Provide menu and nutrition information in advance, including number of carbohydrates, for parents' review.

- Be aware of and inform administration of bullying and threats made by other students.

RESPONSIBILITIES OF SCHOOL NUTRITION DIETITIAN

- Provide information as needed to School Nutrition Managers to accommodate student diet modification needs.
- Be aware of and inform administration of bullying and threats made by other students.

RESPONSIBILITIES OF SCHOOL TRANSPORTATION STAFF

- Ensure that all bus drivers and bus attendants are informed about the students with diabetes and what emergency procedures to follow.
- Be alert and responsive to signs of student distress related to hyperglycemia (high blood sugar) or hypoglycemia (low blood sugar).
- Maintain a functioning means of communication such as radio, walkie-talkie or cell phone and activate the school's emergency response plan if student is in distress.
- Communicate to the school nurse or clinic nurse any concerns regarding the student's actions or behavior regarding diabetes management.
- Understand that students with diabetes may carry snacks and may need to eat and/or drink during the bus ride.
- Understand that students with diabetes are permitted to carry diabetic supplies on their person and attend to the management and care of their diabetes while in school, participating in school sponsored activities, or in transit to or from school if the school principal has been provided with written parental and physician authorization.
- Respect the student's right to confidentiality and privacy.
- Be aware of and inform administration of bullying and threats made by other students.

REFERENCES

<http://www.sarasota.k12.fl.us/schoolhealth/Diabetes.htm> *Diabetes Mellitus*, retrieved 1-19-11.

Nursing Guidelines for the Delegation of Care for Students with Diabetes in Florida Schools, 2003, Florida Department of Health.