A Guide to Diabetes Management In the School Setting

What is diabetes?
Diabetes mellitus (DM) is a complex, multi-system disease affecting the metabolism of fats, proteins and carbohydrates caused by insufficient production of insulin by the pancreas or by the body's inability to use and secrete insulin. There are two main types of DM: Type 1 and Type 2. With Type 1, the pancreas does not produce insulin. It is the most common type afflicting school-age children and will require careful monitoring and treatment with insulin. With Type 2, the body becomes resistant to the insulin produced by the body and is most often treated with oral medications. Type 2 diabetes has increased dramatically in children and typically can be related to obesity.

Do students with diabetes take medications for this condition?
Yes. Most children with a diagnosis of diabetes are insulin-dependent. The student may have to visit the school nurse at scheduled times for testing blood glucose levels and /or insulin injections and may occasionally require a testing of his/her urine for ketones. Remember, it is the responsibility of the teacher, student, and nurse to ensure that the student is tested at the appropriate times and receives medication, if needed. Special arrangements will need to be made with the teacher, nurse and parent in the event of a field trip. Some students receive their insulin requirements with an insulin pump that automatically injects calculated amounts of insulin throughout the school day.

What are the common symptoms observed in a student with diabetes?
The most common symptoms seen in a student diagnosed with diabetes will be associated with hypoglycemia (low blood sugar). This can happen if the student takes his/her insulin and then has an insufficient or delayed meal or increased periods of exercise.
These symptoms of **hypoglycemia (low blood sugar)** include:

* hunger
* lethargy, sleepiness, light-headedness
* shakiness, faintness
* fast heart beat, breathing rapidly
* unconsciousness, convulsions
* personality change, irritability, crying
* headache, pale
* inability to follow directions
* cold, clammy skin, profuse sweating

What should I do if I notice these signs of hypoglycemia?
The nurse must evaluate the student immediately. Depending on the student's individual medical plan, blood sugar level, and level of consciousness, the student may be able to be treated at school. If the student needs to go to the clinic, make sure he/she goes with a responsible buddy/adult. Do not send a symptomatic student to the clinic unescorted. This situation can rapidly become a medical emergency; it may be necessary to implement emergency procedures.

What other symptoms may be observed?
Diabetic students can also develop symptoms of **hyperglycemia (high blood sugar)**. This can occur when the body gets too little insulin, too much food, and too little exercise or may be caused by stress or an illness.
These symptoms of **hyperglycemia (high blood sugar)** include:

* Excessive thirst
* Frequent urination/trips to the restroom
* Fast heart rate, rapid breathing
* Blurry vision
* Nausea/Vomiting

The hyperglycemia generally requires treatment with insulin and the fluid intake should be increased as per the individualized health plan.

How can I best help a student in my classroom?
Stay in contact with the school nurse and the student's parents regarding the student's individualized care plan, snack times, etc. Remember that these students should not eat sugary treats (cupcakes, candy, regular soft drinks) unless they are approved as part of their management plan; request that parents keep an acceptable treat at school which the student can eat when classmates have their treats. It may be necessary for a diabetic student to eat a snack in your classroom to maintain adequate blood sugar levels. Please inform the school nurse at least 2 weeks in advance of any scheduled off campus activities. The procedures to follow for school related activities, parties and field trips as outlined in the individual health care plan will be implemented.

- A note about teenagers with diabetes. During adolescence, the body's hormonal systems undergo radical upheaval, and in a diabetic teenager the results can be unpredictable. Self-monitoring with established protocols can help adolescents keep track of their own condition, and offers them a sense of independence and maturity.

What else can I do to help a diabetic student be more successful?

- Maintain confidentiality.
- Treat these students as normal as possible, but keep in mind their dietary needs.
- Stay in regular contact with your school nurse and the student's parent regarding the student's status and become knowledgeable and familiar with a diabetic student's Individualized Health Plan and emergency protocol.
- Encourage the student with diabetes to participate fully in physical activities, unless the student is symptomatic.
- Encourage independence and diabetes management at home, as well as at school.
- Inform students about special summer camps that provide extremely valuable and fun experiences for students with diabetes.

Resources:

- American Diabetes Association (1-800-DIABETES)
  http://www.diabetes.org
- Centers for Disease Control
  http://www.cdc.gov
- Texas Department of Health (512-458-7490)
  http://www.tdh.state.tx.us/diabetes
- Juvenile Diabetes Research Foundation International
  http://jdf.org
- American Association of Diabetic Educators
  http://www.aadenet.org
- Children with Diabetes
  http://www.childrenwithdiabetes.com