

Tips to Help Teachers Keep Kids with Diabetes Safe at School



About Diabetes

Nearly 21 million adults
and children in the U.S.
have diabetes.



What is diabetes?

- Diabetes is a chronic illness in which the body does not produce insulin (type 1) or does not produce enough insulin or properly use it (type 2).
- Insulin is vital for everyday life because it converts sugar, starches or other food into energy.
- Diabetes is the **sixth deadliest disease** in the U.S.

Diabetes has no cure.

Type 1 diabetes

- Occurs when the pancreas does not produce insulin
- Requires multiple doses of insulin every day – via shots or an insulin pump
- Accounts for 5 to 10% of all cases of diabetes and is the most prevalent type of diabetes among children and adolescents

**Type 1 diabetes
cannot be prevented.**



Type 2 diabetes

- Occurs when the pancreas does not produce enough insulin or use insulin properly
- Increased type 2 diagnoses among children and adolescents in the U.S.
- African Americans and Hispanic/Latino Americans are at higher risk
- Managed with insulin shots, oral medication, diet and other healthy living choices

Type 2 diabetes may be prevented.

Possible long-term complications

- Heart disease
- Stroke
- Kidney disease
- Blindness
- Nerve disease
- Amputations
- Impotence



These chronic complications may occur over time, especially if blood sugar levels are not controlled.

Type 1 diabetes

- Frequent urination
- Excessive thirst
- Extreme hunger
- Dramatic weight loss
- Irritability
- Weakness and fatigue
- Nausea and vomiting

These symptoms usually occur suddenly and can be deadly if left untreated.

Type 2 diabetes

- Increased thirst
- Frequent or night time urination
- Blurry vision
- Unusual fatigue
- Dark skin around the neck or armpits (Acanthosis Nigricans)

These symptoms usually occur gradually and may go unnoticed.

Diabetes management is 24/7...

- Every student with diabetes will be different
- Diabetes requires constant juggling of insulin/medication with physical activity and food
- It's important to recognize the behaviors and signs of “high” and “low” blood sugar levels
- A student with a diabetes emergency will need help from school staff (ex. low blood sugar)
- Students with diabetes can do the same every day activities as students without diabetes



Most immediate concerns in managing type 1 diabetes

- **Hypoglycemia** = low blood glucose
- **Hyperglycemia** = high blood glucose
- **Ketoacidosis** (key-toe-ass-i-DOE-sis) =
ketone (acid) build up in the blood because
there is not enough insulin in the body

Causes of Hypoglycemia (low blood sugar):

- Administering too much insulin
- Skipping or delaying meals/snacks
- Too much insulin for the amount of food eaten
- Exercising longer or harder than planned
- More likely to occur before lunch, at end of school day or during/after PE
- Combination of the above factors

Never leave a student alone or send them away when experiencing hypoglycemia. Treat on the spot.

Symptoms of mild hypoglycemia:

- Sudden change in behavior (lethargic, confused, uncoordinated, irritable, nervous)
- Sudden change in appearance (shaky, sweaty, pale or sleepy)
- Complaints of headache or weakness

Response:

1. Give the student a quick-acting sugar equivalent to 15 grams of carbohydrate:
 - Examples: 4 oz. of juice, $\frac{1}{2}$ a can of regular soda, or 3-4 glucose tablets
 - Ask parents to provide you with what works best for their child
2. Check blood glucose (BG) level 10 to 15 minutes later
3. Repeat treatment if BG is below student's target range

MILD HYPOGLYCEMIA

(low blood sugar)



Shaky, weak, tired, pale



Quick-acting sugar snack
like juice, regular soda, glucose tabs

Symptoms of severe hypoglycemia:

- Inability to swallow
- Seizure or convulsion
- Unconsciousness

This is the most immediate danger to kids with diabetes.

Response:

- Position student on side
- Contact school nurse or trained diabetes staff
- Administer prescribed glucagon
- Call 911
- Call student's parents

GLUCAGON IS A HORMONE THAT RAISES BLOOD GLUCOSE LEVELS.

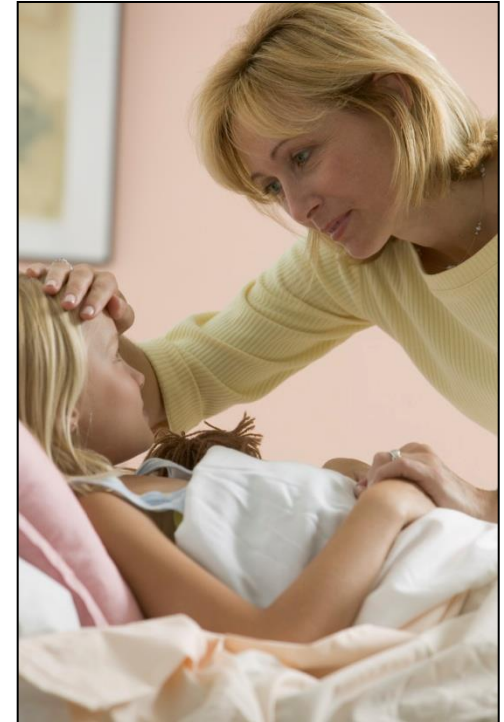
It is only administered when hypoglycemic symptoms are SEVERE.

Glucagon may cause nausea or vomiting, but...

**GLUCAGON IS A LIFE-SAVING TREATMENT THAT
CANNOT HARM A STUDENT!**

Causes of Hyperglycemia (high blood sugar):

- Too little insulin
- Illness, infection or injury
- Stress or emotional upset
- Decreased exercise or activity
- Combination of the above factors



Symptoms of hyperglycemia:

- Increased thirst
- Frequent urination
- Nausea
- Blurry vision
- Fatigue

Response:

- Allow free and unrestricted access to liquids and restrooms
- Allow student to administer insulin or seek a trained staff person to administer
- Encourage student to test blood glucose levels more frequently

In the short term, hyperglycemia can impair cognitive abilities and adversely affect academic performance.

In the long-term, high blood glucose levels can be very dangerous.

Bathroom breaks, water, insulin

**Increased urination, thirst,
blurry vision , nausea**

HYPERGLYCEMIA

(high blood sugar)



As a teacher, you can help by:

- Supporting self-care by capable students
- Providing easy-access to diabetes supplies
- Ensuring students eat snacks at a scheduled time and make sure snacks are available to treat low blood sugar
- Allowing students reasonable time to make up missed homework or tests
- Learning about diabetes and complying with the individual student's 504 and health care plans



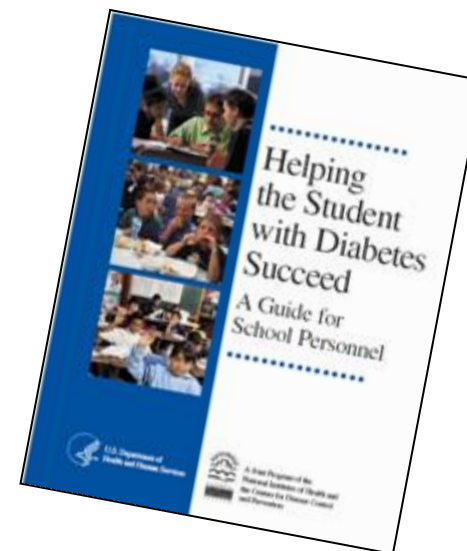
Other Classroom Tips:

- Keep a contact sheet of trained diabetes staff at your desk for emergencies
- Create a diabetes info sheet for substitute teachers
- Learn signs and responses to low/high blood sugar levels
- Allow blood glucose monitoring and free access to bathrooms/water during class
- Teach your class about diabetes
- Let parents know, in advance, changes to the class schedule (field trips, special events, etc.)



For More Information:

- Visit www.diabetes.org/schools
- Visit www.diabetes.org/safeatschool
- Download the following free tools:
 - *NDEP's Helping the Student with Diabetes Succeed: A Guide for School Personnel*
 - *ADA's Diabetes Care Tasks at School: What Key Personnel Need to Know*
- Visit www.diabetes.org/schoolwalk for free lesson plans about diabetes



Thank You!

**School Staff Support + Diabetes Knowledge
=
Student Success**

