



### Tips to Help Teachers Keep Kids with Diabetes Safe at School





Presenter School Name Date





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

This includes <#> children at <Insert School District>









#### 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.



### Symptoms of Diabetes



#### 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:

- Give the student a quickacting sugar equivalent to 15 grams of carbohydrate:
  - Examples: 4 oz. of juice, ½ 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 <u>most immediate</u> 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



(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.)

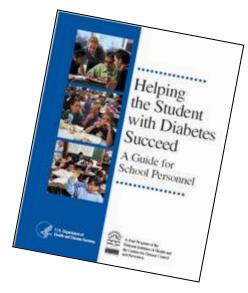
#### **Diabetes Information**



#### For More Information:

- Visit <u>www.diabetes.org/schools</u>
- Visit <u>www.diabetes.org/safeatschool</u>
- 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 <u>www.diabetes.org/schoolwalk</u>
  for free lesson plans about diabetes





### Thank You!



## School Staff Support + Diabetes Knowledge =

#### **Student Success**



www.diabetes.org 1-800-DIABETES