Diabetes Care Tasks at School: What Key Personnel Need To Know

AFTER-SCHOOL PROGRAMS, SPORTS AND CAMPS

Safe at School

American Diabetes Association
GOAL: OPTIMAL STUDENT HEALTH AND LEARNING

All program staff members should have basic knowledge of diabetes and know who to contact for help.
Participants will be able to understand:

- Basic components of diabetes care at after-school programs, sports and camps
- Hypoglycemia and hyperglycemia
- Physical activity guidelines for students with diabetes
CARING FOR A CHILD OR YOUTH WITH DIABETES AT CAMP

• Children, especially young children, are totally dependent on adults
• With proper planning and glucose management, children and/or youth with diabetes can and should be allowed to participate in ANY activity
• Diabetes Care Plans will vary depending on the after-school activity and the youth’s level of independence
  • Extra-curricular activities (band, choir, debate, etc.)
  • Sports
  • Day- or Overnight- camps
DIABETES MANAGEMENT
Constant Juggling – 24/7

Glucose Raising

- Food
- Not enough insulin or carbs don’t match insulin provided
- Illness, stress, injury
- Side effects from other medications (steroids)

Glucose Lowering

- Too much insulin
- Carbohydrates don’t match insulin given or didn’t finish all carbohydrates after providing insulin
- Exercise or activity *

* Physical activity generally lowers blood glucose. However, certain activities may raise blood glucose for some students.
## ROUTINE DIABETES CARE TASKS

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
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<tbody>
<tr>
<td>Blood glucose monitoring</td>
<td>• Before food intake and physical activity and when low or high blood glucose is suspected. Equipment includes blood glucose meter, lancet, lancing device, test strips, CGM (if used).</td>
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<tr>
<td>Insulin administration</td>
<td>• Before or after food intake and to treat high blood glucose. Equipment includes insulin, delivery device (pump, pen, syringe).</td>
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<tr>
<td>Food intake scheduling and monitoring</td>
<td>• Snacks and meals provided and/or monitored to ensure food consumption is in accordance with insulin dosing. Equipment includes food, carbohydrate information.</td>
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<tr>
<td>Hypoglycemia treatment</td>
<td>• Awareness that unusual behaviors after physical activity or insulin may signify hypoglycemia. Equipment includes quick-acting carbohydrates and glucagon.</td>
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<tr>
<td>Hyperglycemia treatment</td>
<td>• Awareness that increased urination or drinking may signify hyperglycemia. Equipment includes water or other non-carbohydrate-containing liquid, insulin.</td>
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<tr>
<td>Ketone monitoring</td>
<td>• Check ketones if repeated blood glucose tests show above target range or if the child is ill. Equipment includes urine or blood ketone strips, ketone monitor.</td>
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DIABETES MANAGEMENT

Routine Care:

• Many students will be able to handle all or almost all routine diabetes care by themselves
• Some students will need staff to perform or assist with routine diabetes care
• Care needs will be outlined in the DMMP for each student

Emergency Care:

• ALL students with diabetes will need help in the event of an emergency situation
AFTER-SCHOOL DIABETES CARE

A school nurse is not always available and parental attendance cannot be required for the student’s participation.

Non-medical staff can be trained to assist students:

- For both routine and emergency care
- Including insulin and glucagon administration

All staff members responsible for students with diabetes should be trained to know the warning signs of low and high blood glucose.
HYPOGLYCEMIA: POSSIBLE SIGNS AND SYMPTOMS

Mild to Moderate Symptoms

- Hunger
- Shakiness
- Weakness
- Paleness
- Dizzy or lightheaded
- Increased heart rate
- Yawning
- Irritability/frustration
- Extreme tiredness/fatigue

- Sleepiness
- Changed behavior
- Sweating
- Anxiety
- Dilated pupils
- Restlessness
- Confusion
- Sudden crying

Severe Symptoms

- Inability to eat or drink
- Unconscious
- Unresponsive
- Seizure activity or convulsions (jerking movements)
SEVERE LOW BLOOD GLUCOSE

- If a child should become unconscious, or can’t eat, drink or swallow…

1. Glucagon Emergency Kit should be given without delay

2. Parents should be immediately notified, call 911
HYPERGLYCEMIA: POSSIBLE SIGNS AND SYMPTOMS

Mild Symptoms
- Lack of concentration
- Thirst
- Frequent urination
- Flushing of the skin
- Sweet, fruity breath
- Blurred vision
- Weight loss
- Increased hunger
- Stomach pains
- Fatigue/sleepiness

Moderate Symptoms
- Dry mouth
- Vomiting
- Stomach cramps
- Nausea

Severe Symptoms
- Labored breathing
- Confusion
- Profound weakness
- Unconscious
GOAL BLOOD GLUCOSE RANGE

- Fasting blood glucose for people without diabetes is usually within the range of 70-100 mg/dL
- Students with diabetes have individual goal ranges based on their age and ability to feel low blood glucose
- If above (hyperglycemia) or below (hypoglycemia) their target range, they may need an intervention or treatment to correct them back into a safe range to avoid serious acute complications
INSULIN DOSING

• Most students with diabetes need to take insulin several times per day

• Insulin dosing varies for students and doses change over time

• Insulin dosing and timing will be specified in the DMMP; these physicians orders may include provisions for the parent/ guardian and/or capable students to modify dosing themselves

• How, where, and who may perform or assist with insulin administration should be documented
INFORMATION FOR COACHES

• Students with diabetes need the freedom to test their blood glucose and drink and eat as needed
• Recognize hypoglycemia symptoms and be aware that students need immediate treatment if low
  • Individual targets but a glucose < 70 is low
• Students with high blood glucose need to drink extra water
  • Individual targets but a glucose > 180 needs increased water
• Exercise should be avoided if students have ketones
• Know how to administer Glucagon and where it is kept
PHYSICAL ACTIVITY FOR STUDENTS ON INSULIN THERAPY

If no scheduled snack but the child is going to be active for at least 30 minutes:

- Check glucose and be prepared to check as needed if any symptoms during participation.

  If under 100 (or other value determined by the health care provider), give a 15g carbohydrate snack.

  If activity will exceed 2 hours, the child should check glucose half way through and at anytime signs or symptoms of hypoglycemia.
HIGH ALERT SITUATIONS

Parent/Guardian should be called if a child or youth has:

- Severe low blood glucose
- Vomiting, positive ketones
- Refusing to eat
- Refusing to check blood glucose
- Low blood glucose has been treated but is not coming up
- High blood glucose has been treated but is not coming down
Module 16  Pre – and Post – Tests:

AFTER-SCHOOL PROGRAMS, SPORTS AND CAMPS

This tool may be freely duplicated and distributed for training purposes
1. Which of the following tasks are necessary for appropriate diabetes care?
   a. Insulin administration
   b. Blood glucose administration
   c. Carbohydrate counting
   d. Recognition and treatment of hypoglycemia (low blood glucose)
   e. All of the above

2. Parental attendance cannot be required in order for the student to receive diabetes care at after-school activities.
   a. True
   b. False

3. What should children with diabetes be allowed to do if they are playing sports?
   3. Children with diabetes should not be allowed to play sports
   4. Have access to water and snacks
   5. Self-manage their diabetes if they are capable of doing so
   6. b and c
   7. None of the above
WHERE TO GET MORE INFORMATION

American Diabetes Association
1-800- DIABETES
www.diabetes.org/safeatschool