DIABETES CARE TASKS AT SCHOOL: What Key Personnel Need to Know

BLOOD GLUCOSE MONITORING

American Diabetes Association®
Cure • Care • Commitment®
Goal: Optimal Student Health and Learning

Blood glucose monitoring (BGM) is a vital piece of a comprehensive management plan.
Learning Objectives

Participants will be able to understand:

- Why blood glucose is monitored
- When blood glucose should be monitored
- How to perform a blood glucose check
- Required equipment
Blood Glucose Monitoring

GOAL:
- maintain blood glucose within target range

IMMEDIATE BENEFIT:
- maximize learning and participation
- identification, treatment, and prevention of lows and highs

LONG-TERM BENEFIT:
- decrease risk of long-term complications
- maximize health

CHALLENGE:
- many variables impact blood glucose
Role of the School

In accordance with DMMP:

- Facilitate blood glucose monitoring
- Act on blood glucose check results
- Document results of blood glucose monitoring when assistance or supervision is provided
- Communicate blood glucose results to parent/guardian or school nurse to monitor for trends
Any Time, Any Place Monitoring

For students who can self-check:

- Improved blood glucose control
- Safer for student
- Student gains independence
- Less stigma
- Less time out of class
- Assists decision making in response to result
Blood Glucose Monitoring Technology

- Simply, easy to use
- Small meters
- Reliable results (with smaller samples)
- Options for alternate (to finger poke) site testing
- Enhanced electronic functions to record, share, and analyze data

Limitation – don’t know blood glucose between checks
Continuous Glucose Monitoring (CGM)

How it works:

- A tiny glucose-sensing device called a "sensor" is inserted just under the skin
- The sensor measures glucose in the tissue and sends the information to a pager-sized device
- The system automatically records an average glucose value every 5 minutes for up to 3, 5, or 7 days
- Finger stick pokes and regular meter needed to calibrate
- Alarms signal when glucose is out of target range

Limited, but increasing use; emerging technology
Basic Steps

- **Know** the target range per DMMP
- **Check** at times specified in DMMP
- **Immediate Action** – Treatment to get back within target range
When to Check?

DMMP specifies for an individual student

Regularly scheduled checks:

• Routine monitoring before meals and snacks
• Before, during and/or after physical activity
When to Check?

Per DMMP, extra checks may be necessary:

- Hypoglycemia or hyperglycemia symptoms
- Change in diabetes management
- Periods of stress or illness
- Prior to academic tests
- Early or delayed release from school
- CGM alarms
Lancing Devices

Lancets

MultiClix

Pen-type Lancing Devices

- Cap
- Release Button
- Cocking Control
- Depth Settings
- Depth Knob
- Depth Indicator
Know the Meter

• Features vary:
  - Sample size
  - Wait time
  - Alternate-site testing capacity
  - Communication with other devices – pumps, continuous glucose monitors

• Become familiar with operation of meter
  1-800 number on back of meter
Preparation

1. Gather blood glucose monitoring supplies:
   - *Lancet*
   - *Test strips*
   - *Meter*

2. Student washes hands and dries thoroughly

3. If assisting or performing for student, put on disposable gloves
Readying the Meter

4. Turn the meter on

5. Check code # (if required)

6. Insert a strip into the meter
Lancing the Finger

7. Hold the lancet device to the side of the finger and press the button to stick the finger.

- **Alternative site (per DMMP)** the school nurse and/or parent/guardian will give further instructions which sites are appropriate.

- **Note:** In the case of suspected hypoglycemia, only the finger should be used for blood glucose sampling.
Applying Blood to Strip

8. Follow instructions included with the meter when applying blood to strip

Drop, not smear

Cover **ALL** of test strip window

Some strips wick blood onto the strip
Results

9. Wait until blood glucose results displayed
10. Dispose of lancet and strip
11. Record blood glucose results, take action per DMMP
What Does the Display Mean?

- Check manual
- Contact manufacturer (1-800; Website)
What Does the Number Mean?

- Reference student’s target range
  - Individualized for student
  - May vary throughout day
  - Take action per DMMP

- Communicate sensitively

- Recognize value may vary according to time since eating, insulin, or physical activity