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

HYPERGLYCEMIA
Goal: Optimal Student Health and Learning

Managing hyperglycemia is a vital piece of a comprehensive plan.
Learning Objectives

Participants will be able to understand:

- Symptoms of high blood glucose
- Treatment of high blood glucose
- Prevention of high blood glucose
- Short and long-term risks and complications
Vocabulary

Hyperglycemia - too high a level of glucose in the blood

Ketones - (ketone bodies) Chemicals that the body makes when there is not enough insulin in the blood and the body must break down fat for its energy

Diabetic ketoacidosis (DKA) - An acute metabolic complication of diabetes characterized by excess acid in the blood which can be life threatening

Ketone testing - a procedure for measuring the level of ketones in the urine or blood

Glucose - a simple sugar found in the blood. The fuel that all body cells need to function
HYPERglycemia = HIGH Glucose (Sugar)

Onset:
- Usually slow to develop to severe levels
- More rapid with pump failure/malfunction, illness, infection
- Can mimic flu-like symptoms
- Greatest danger: may lead to diabetic ketoacidosis (DKA) if not treated

DMMP will specify signs and action steps at each level of severity:
- Mild
- Moderate
- Severe
Hyperglycemia: Possible Signs & Symptoms

Severe Symptoms
- Labored breathing
- Profound weakness
- Confusion
- Unconscious

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

Mild Symptoms
- Lack of concentration
- Frequent urination
- Sweet, fruity breath
- Weight loss
- Thirst
- Flushing of skin
- Blurred vision
- Increased hunger
- Fatigue/sleepiness
Hyperglycemia: Risks & Complications

- Hyperglycemia, which if untreated can lead to DKA and potentially to coma and/or death (mainly in type 1)

- Interferes with a student’s ability to learn and participate

- Serious long-term complications develop when glucose levels remain above target range over time or are recurring
Hyperglycemia: What to do

Goal: lower the blood glucose to target range.

Action steps, following DMMP

- Verify with blood glucose check
- Check ketones
- Allow free use of bathroom and access to water
- Administer insulin
- Recheck blood glucose
- Call parent/guardian
- Note any patterns, communicate with school nurse and/or parent/guardian
Hyperglycemia: Possible Causes

- Late, missed or too little insulin
- Food intake exceeds insulin coverage
- Decreased physical activity
- Expired or improperly stored insulin
- Illness, injury
- Stress
- Other hormones or medications
- Hormone fluctuations, including menstrual periods
- Any combination of the above
Hyperglycemia: Prevention

• **Timing** is very important – stick to the schedules:
  – Meal time, insulin administration, physical activity

• **Accuracy** is very important
  – Insulin dose, monitoring the amount and type of food eaten

• **Changes** should only be made after consultation with the parent/guardian and/or school nurse
  – Snack, meal, or insulin or physical activity times or amounts
Information for Teachers

- Students with hyperglycemia or hypoglycemia often do not concentrate well
- Students should have adequate time for taking medication, checking blood glucose, and eating
- During academic testing, provide accommodations as per 504 plan or IEP
  - Check blood glucose before and during testing, per plan
  - Access to food/drink and restroom
  - If a serious high or low blood glucose episode occurs, students should be excused with an opportunity for retake
“Make the Right Choice the Easy Choice”

Eliminate barriers to diabetes management:

- Become familiar with and following students’ written plans
- Eliminate barriers to:
  - snacking
  - blood glucose checks
  - access to water and bathrooms
  - insulin administration
- Avoid “good or bad” judgments based on individual blood glucose readings
- Communicate with parent/guardian and school nurse