

ALGORITHMS FOR BLOOD GLUCOSE RESULTS USING AN INSULIN PUMP



Student's Name: _____

Student's usual **LOW** blood glucose symptoms:

- | | |
|---|--|
| <input type="checkbox"/> Shaky or jittery | <input type="checkbox"/> Uncoordinated |
| <input type="checkbox"/> Sweaty | <input type="checkbox"/> Irritable, nervous |
| <input type="checkbox"/> Hungry | <input type="checkbox"/> Argumentative |
| <input type="checkbox"/> Pale | <input type="checkbox"/> Combative |
| <input type="checkbox"/> Headache | <input type="checkbox"/> Changed personality |
| <input type="checkbox"/> Blurry vision | <input type="checkbox"/> Changed behavior |
| <input type="checkbox"/> Sleepy | <input type="checkbox"/> Unable to concentrate |
| <input type="checkbox"/> Dizzy | <input type="checkbox"/> Weak, lethargic |

Student's usual **HIGH** blood glucose symptoms:

Hyperglycemia

- Increased thirst, dry mouth
- Frequent or increased urination
- Change in appetite, nausea
- Blurry vision
- Fatigue
- Other

Emergency levels

- Extreme thirst
- Nausea, vomiting
- Severe abdominal pain
- Fruity breath
- Heavy breathing, shortness of breath
- Increasing sleepiness, lethargy

CHECK BLOOD GLUCOSE

BELOW 70

1. Give 8-10 gm fast-acting carbohydrate.
2. Notify school nurse (if available)
3. Observe for 15 minutes.
4. Recheck blood glucose if sensor glucose not rising.
 - a. If less than 70, repeat 8-10 gm carbohydrate.
5. Notify parent if no improvement.
6. Student should not exercise until blood glucose is >70.

CALL 911 if student becomes unconscious, has seizures or is unable to swallow.

- Turn student on side to ensure open airway.
- Give glucagon as ordered. Keep student in recovery position on side.
- Place pump in 'suspend' mode, or disconnect it at the pigtail or clip. If pump is removed, send it with EMS to the hospital.
- Notify school RN & parent/guardian.
- Wait 15 minutes; if no response, repeat glucagon.
- If responsive, offer juice. Wait 15 minutes and give carbohydrate snack.

70-90

1. If student's blood glucose result is **immediately following** or **prior to exercise**, give 8-10 gm carbohydrate snack.
2. If meal or snack is within 60 minutes, no additional carbs are needed.

8-10 GM FAST-ACTING CARBOHYDRATE:

- 2-3 oz juice
- 2-3 glucose tablets
- ½ tube of glucose gel
- 2-3 oz regular (not diet) soda
- 4-5 small easy to chew sugar candies
- 6 oz skim or low-fat milk

EXERCISE & SPORTS:

- ✓ Ensure that student has quick access to water for hydration, fast-acting carbohydrates, snacks, and monitoring equipment.
- ✓ Student should not exercise if blood glucose level is below 70 mg/dl or if they have moderate to large ketones

91-125

No action needed unless student will be participating in moderate activity lasting 30 minutes or more. Then consider an 8-10g carbohydrate snack.

NO ACTION NEEDED.

126-300

ABOVE 300

STUDENT TREATED BY PUMP

1. If 2-3 hours since last bolus, treat with correction bolus via pump
 - Inspect pump site for connection to ensure proper placement. Check for redness, tubing for kinks or air bubbles
2. Re-check glucose in 2-3 hrs
 - If blood glucose still ≥ 300 mg/dl and not explained, check ketones and then notify school nurse
 - Change pump set (if available)
 - a. If ketones are absent or small, encourage drinking water
 - b. If ketones are moderate or large:
 - Give insulin correction dose per orders via pen or syringe and disconnect pump for up to 3 hours
 - Call parent
 - No exercise; encourage water

CALL 911 if lethargic and/or has labored breathing, or vomits with large ketones.

Make sure school nurse and parent are called.