# Diabetes Medical Management Plan

## Supplies Needed:

Caregiver is responsible for providing diabetes supplies and food to meet the needs of the student. It is strongly recommended that meter, strips, & lancet device be kept with student for use as needed.

## Exercise (such as PE or recess):

Exercise is important for all children, and children with diabetes are no exception. **Exercise helps with their blood glucose control and allows their insulin to work more effectively.** A person with diabetes should not be and does not want to be treated differently because of having diabetes.

- **The student is not required to check blood glucose prior to exercise unless showing signs/symptoms of a high or low blood glucose, or it is added to the prescriber authorization form.**
- If student exhibits signs of high and/or low blood glucose readings, please check blood glucose.
- If the student has a **low blood glucose reading**, treat the **low blood glucose**. After treatment of the blood glucose, make sure blood glucose reading is 100 mg/dL and above then send the student to PE. **Remember, the student can now exercise**.
- ***The student's blood glucose is NOT required to be 100 mg/dL or above unless the blood glucose has been low prior to exercise***.
- Fast-acting carbohydrates should be made available at the site of exercise. Examples can include glucose tablets, glucose/cake gel, regular Gatorade, regular soda, and skim milk.
- Cheese and crackers, meat sandwich, etc. are examples of other snacks that can be given after returning the blood glucose to 100 mg/dL or above.
- Student should have glucose meter and water always available. Increased water intake is recommended during exercise.
- Student should not exercise if moderate to large ketones are present or if student is ill with trace or larger ketones. Ketones should be checked per the hyperglycemia algorithm, and anytime the child is not feeling well or vomiting.

**Activity with Automated Insulin Pumps:**

- Some insulin pumps have the ability to enable a different mode to adjust insulin delivery around activity.
- If provider has ordered for student to utilize this mode, please allow student to change pump mode as needed before increased activity times to help prevent low blood glucoses. Change mode 30 minutes to 1 hour before expected activity. May be extended up to 1 hour past end of activity as student tolerates.
- Modes for different insulin pumps:
  - Omnipod- Activity Mode
  - Tandem- Exercise Mode
  - Medtronic- Temp Target

## Instructions for Injection Therapy:

**See Treatment for Hyperglycemia/Hypoglycemia on pages 8, 10, & 11.**

- **Mealtime Dose** – See medication prescriber/parent authorization form labeled "**meal dose**" for dosage and route. This is always given for food.
- **Correction Dose** – Use medication authorization form labeled "**correction dose**" for blood glucose above the target number. Example: (Blood glucose-150)/50; Target blood glucose is 150.

**CORRECTION FACTOR DOSE SHOULD NOT BE GIVEN ANY CLOSER THAN 3 HOURS APART**

- If **NO** correction factor is needed at meal/snack time, **NO** correction factor can be given for high blood glucose until it has been a minimum of 2 hours after the meal/snack dose.

## Sample Calculations:

**Order 1:**

- **Correction factor** = (BG-120)/20; **use only if it has been 3 hours since last correction dose.**
- **Meal ratio** = 1 unit per 7 grams of carbohydrates (plus correction factor if applicable)**.**
- **Rounding** = round down to the nearest whole unit.

Before lunch BG = 155 mg/dL — Correction dose for high BG: (155 – 120) / 20 = 1.7

Carbohydrates to eat = 96 grams — Meal dose: 96 / 7 = 13.7

**Total units = 15.4 (add the two totals together first before rounding)**

**Total units to give after rounding down to the nearest whole unit = 15 units**

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**Order 2:**

- **Correction factor** = (BG – 150) / 125; **use only if it has been 3 hours since last correction dose.** The student received a correction dose at **9am** for a high blood glucose reading.
- **Meal Ratio** = 1 unit of Novolog per 40 grams of carbohydrates (plus correction factor if applicable).
- **Rounding** = round to the nearest half unit.

Before lunch BG = 215 mg/dL at **11:00am.** It has not been 3 hours or greater; cannot use correction.

Carbohydrates to eat = 20 grams — Meal dose = 20 / 40 = 0.5

**Total units = 0.5 unit for meal**

Student will receive only the insulin for his/her meal. It is too soon to give a correction dose.

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**Order 3:**

- **Correction factor** = (BG – 150) / 100; **use only if it has been 3 hours since last correction dose.**
- **Fixed dose** = 5 units of Humalog before lunch (plus correction factor if applicable).
- **Rounding** = round down to the nearest whole unit.

Before lunch BG = 322 mg/dL

Correction dose for high BG = (322 – 150) / 100 = 1.7

Insulin for meal = 5 units

**Total units = 6.7**

**Total units to give = 6 units**

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**Order 4:**

- **Correction factor only** = (BG – 150) / 100; **use only if it has been 3 hours since last correction dose**.
- **Rounding** = round down to the nearest whole unit.
- Use to correct high blood glucose **(mealtime and in between) only if it has been 3 hours or greater since last correction dose.**

Before lunch BG = 230 mg/dL — Correction dose for high BG = (230 – 150) / 50 = 1.6

**Total units = 1 unit**

## Rounding:

| Round to the nearest half unit | Round down to the nearest half unit | Round up to the nearest half unit |
|---|---|---|
| 0.1 – 0.4 = Round down to the whole unit<br>0.5 = Keep dose as is<br>0.6 – 0.9 = Round up to the whole unit | 0.1 – 0.4 = Round down to the whole unit<br>0.5 = Keep dose as is<br>0.6 – 0.9 = Round down to the half unit | 0.1 – 0.4 = Round up to the half unit<br>0.5 = Keep dose as is<br>0.6 – 0.9 = Round up to the whole unit |
| **Round to the nearest whole unit** | **Round down to the nearest whole unit** | **Round up to the nearest whole unit** |
| 0.1 – 0.4 = Round down to the whole unit<br>0.5 – 0.9 = Round up to the whole unit | 0.1 – 0.4 = Round down to the whole unit<br>0.5 – 0.9 = Round down to the whole unit | 0.1 – 0.4 = Round up to the whole unit<br>0.5 – 0.9 = Round up to the whole unit |

## Instructions for Continuous Glucose Monitor (CGM):

**If the student has a CGM that uses the student's cell phone as the receiver for the CGM, a student wearing a CGM must carry his/her smart device on self.**

- **Dexcom G6 and G7 CGM** readings **can** be used for dosing with insulin per FDA approval. (Ex: at mealtimes or to correct hyperglycemia unless the parent states they require a finger stick blood glucose). If the symptoms of the student do not correspond with the reading, then a finger stick is needed. If the CGM reading is greater than 300 mg/dL or less than 70 mg/dL, the reading should be confirmed with a blood glucose check using the student's meter and treated according to the instructions on the pathway.
- **Freestyle Libre 2 Plus and Libre 3 Plus** readings **can** be used for dosing with insulin per FDA approval (Ex: at mealtimes or to correct hyperglycemia unless the parent states they require a finger stick blood glucose). If the symptoms of the student do not correspond with the reading, then a finger stick is needed. If the CGM reading is greater than 300 mg/dL or less than 70 mg/dL, the reading should be confirmed with a blood glucose check using the student's meter and treated according to the instructions on the pathway.
- **Medtronic Minimed with the Guardian CGM** readings are **not** to be used for treatment decisions during mealtimes or to correct hyperglycemia, per the FDA. The readings can be used for times that do not require treatment with insulin (Ex: before leaving school, before PE, or unless the parent states they require a finger stick blood glucose). If the symptoms of the student do not correspond with the reading, then a finger stick is needed. If the CGM reading is greater than 300 mg/dL or less than 70 mg/dL, the reading should be confirmed with a blood glucose check using the student's meter and treated according to the instructions on the pathway.
- **Medtronic Minimed with the Instinct or Simplera Sync CGM in SmartGuard Mode** readings can be used for treatment decisions during mealtimes or to correct hyperglycemia, per the FDA. The readings can be used for times that do not require treatment with insulin (Ex: before leaving school, before PE, or unless the parent states they require a finger stick blood glucose). If the symptoms of the student do not correspond with the reading, then a finger stick is needed. If the CGM reading is greater than 300 mg/dL or less than 70 mg/dL, the reading should be confirmed with a blood glucose check using the student's meter and treated according to the instructions on the pathway.

## Instructions for Pump Therapy:

- Insulin pumps in Automated Mode/Control IQ/SmartGuard will self-adjust basal insulin.
- See Treatment for Hyperglycemia / Hypoglycemia on pages 6, 7, and 9.
- Correction dose can be used every 2 hours as needed when given through an insulin pump because of the programmed feature of active insulin time.
- **CORRECTION FACTOR DOSE SHOULD NOT BE GIVEN ANY CLOSER THAN 2 HOURS APART IF USING THE DOSING SUGGESTION FROM THE INSULIN PUMP (this includes using the current sensor glucose reading).**
  - Exception: If sensor or fingerstick blood glucose is reading less than 70 mg/dL, enter the low glucose reading into the pump for calculations regardless of when student last received insulin bolus.
- If a student is eating a meal/snack within 2 hours of a previous meal/snack dose administration, only enter in the carbohydrates being eaten at that time into the pump for calculations. Do not enter in current blood glucose or sensor reading at that time.
  - Exception: If sensor or fingerstick blood glucose is reading less than 70 mg/dL, enter the low glucose reading into the pump for calculations regardless of when student last received insulin bolus.
- For pump failure or loss of infusion site, remove insulin pump and the student will need to resume insulin injections by syringe or pen.
  - Independent students with supplies may reinsert infusion set.
    - Recheck blood glucose in 2 hours or next scheduled time, whichever comes first.
  - Notify caregiver(s) so long-acting insulin (such as Lantus, Tresiba, Basaglar, etc.) can be administered or site replaced within 1 hour.
    - If you cannot reach the caregiver(s), suspend and remove the pump and begin manual insulin injections by syringe or pen.
  - The rapid-acting insulin may be administered by injection for insulin to carbohydrate ratio and correction factor doses using the pump prescriber authorization form.
    - Use medication authorization form labeled "**correction dose**" for blood glucose above the target number. Example: (Blood glucose-150)/50; Target blood glucose is 150.
  - Remember, you must wait 3 hours between correction dose administrations while on injections but give meal dose as scheduled.
  - Student does not need to go home unless they have moderate to large ketones and/or they are showing signs or symptoms of illness.

## Instructions for InPen Device:

- See Treatment for Hyperglycemia/Hypoglycemia on pages 8, 10, & 11.
- The dose the InPen app recommends is calculating the insulin on board, so it may or may not match the same dose if you manually calculate it.
- **Mealtime Dose** – See medication prescriber/parent authorization form labeled "**meal dose**" for dosage and route. This is always given for food. Verify the doses on the medication prescriber form are the same doses that are in the dose settings in the app. Enter the amount of carbohydrates and the current blood glucose in the InPen app. This will calculate the recommended dosing for that meal.
- **Correction Dose** – Use medication authorization form labeled "**correction dose**" for blood glucose above the target number. Verify that the doses match the correct doses on the medication authorization form and the dose settings in the app.
- *CORRECTION FACTOR DOSE SHOULD NOT BE GIVEN ANY CLOSER THAN 2 HOURS APART IF USING THE DOSING SUGGESTION FROM THE INPEN APP.*
  - If **NO** correction factor is needed at meal/snack time, **NO** correction factor can be given for high blood glucose until it has been a minimum of 2 hours after the meal/snack dose.

# Hyperglycemia: Insulin Pump

If blood glucose is greater than 250mg/dL via fingerstick or greater than 250mg/dL for 90 minutes via CGM, then check for ketones.

1. Check infusion set, site, and pump for kinks, leakage, or failure (if ketones present).
   - For pump failure or bad pump site, contact family (unless student is marked independent with supplies/change site).
   - If you cannot reach the caregiver(s), suspend and remove the pump and begin manual insulin injections by syringe or pen.
   - Refer to insulin pump Prescriber Authorization form for dosing if insulin pump removed (*correction factor given every 3 hours as needed per pen/syringe pathway).
2. When was the last correction factor given? If more than 2 hours ago, give correction factor.

**Ketones Negative**

1. Administer correction factor by insulin pump.
2. Return to class with sugar free/caffeine free fluids.
3. Resume normal activities.
4. Recheck blood glucose and ketones in 2 hours. Give a correction factor bolus if needed.
5. If ketones present with recheck, then follow appropriate guidelines.

**Ketones Present without Nausea/Vomiting**

**Ketones Present (Trace/Small) without Nausea/Vomiting**

1. Administer correction factor by insulin pump.
2. Return to class with sugar free/caffeine free fluids.
3. Resume normal activities.
4. Recheck blood glucose and ketones in 2 hours. Give correction factor bolus if needed.
5. If ketones present with recheck, then follow appropriate guidelines.

**Ketones Present (Moderate/Large) without Nausea/Vomiting**

1. Remove insulin pump.
2. Administer correction factor by pen/syringe injection rather than with pump.
3. Student will need to change insulin pump infusion set, site/pod and refill reservoir/pod with insulin. If student is not marked independent in care, then contact family (see page 5 for pump failure).
4. Return to class with sugar free/caffeine free fluids.
5. No physical activity.
6. Recheck blood glucose and ketones in 3 hours.

**Ketones Present with Nausea/Vomiting**

1. Remove insulin pump.
2. Correction dose of insulin by syringe/pen injection.
3. Student will need to change insulin pump infusion set, site/pod, and refill reservoir/pod with insulin. If student is not marked independent in care, then contact family (see page 5 for pump failure).
4. Call parents. Child should be sent home.
5. If unable to reach parents, Call Diabetes doctor on call (205-638-9107) and request a sick day page.
6. If you do not receive a callback within 15 minutes, call back to office as above or call (205-638-9100) and ask for the Diabetes doctor on call.

- Student shall be permitted to have access to water by keeping a water bottle in his/her possession at his/her desk, or by allowing student unrestricted access to drinking fountain.
- **Student is not to miss class by sitting in the nurse's office or be sent home unless vomiting or feeling poorly.**

# iLet Bionic Pump Ketone Action Plan

Children's of Alabama

**Times you should test your blood sugar and ketones:**

- If your CGM glucose is greater than 400 mg/dL
- If your CGM glucose has been 250 mg/dL for 90 minutes
- If you have nausea, vomiting, or diarrhea.
- If you think your infusion set is not working

| Green Zone | Yellow Zone | Red Zone |
|---|---|---|
| • Urine Ketones are Negative<br>• If checking for blood ketones, they are less than 0.6 mmol/L | • Urine Ketones are trace – moderate.<br>• If checking for blood ketones are 0.6-2.5 mmol/dL | • Urine ketones are large<br>• If checking for blood ketones, they are 2.5 mmol/L or higher |
| 1. Check your iLet to make sure it is charged and has insulin. It should be displaying CGM values.<br>2. Check your infusion set to make sure it is in place and working properly.<br>3. Continue to monitor your blood sugar.<br>4. If your blood sugar remains above 250 for 90 minutes, check your ketones again. | **Yellow Zone – A**<br>1. Change infusion set.<br>2. Drink water.<br>3. Recheck blood sugar and ketones in 90 minutes.<br>• If blood sugar is less than 180 mg/dL and ketones are negative, there is nothing else to do.<br>• If ketones are still present, move to Yellow Zone B.<br><br>**Yellow Zone – B**<br>1. If blood sugar is less than 180 mg/dL and ketones are the same or improved, recheck ketones in 90 minutes.<br>2. If the blood sugar is less than 180 mg/dL and ketones are small or trace after 3 ketone checks, there is nothing else to do.<br>∘ All ketone checks must be 90 minutes apart.<br>3. If blood sugar is greater than 180 mg/dL and ketones are not negative, move to Red Zone. | 1. Disconnect your pump at the time of the injection.<br>2. Give fast-acting insulin dose provided by your healthcare provider immediately.<br>Dose of fast – acting insulin:<br>_____<br>3. Call your Healthcare provider immediately<br>4. Drink Water.<br>5. Recheck blood sugar and ketones in 90 minutes.<br>• If blood sugar is less than 180 mg/dL and the ketones are negative change the iLet infusion set and reconnect the Ilet.<br>∘ iLet pump cannot be restarted before 90 minutes.<br>• If blood glucose is greater than 180 mg/dL and ketones are NOT negative, call your healthcare provider and go to the emergency room or call 911. If your child is not responsive or is breathing abnormally, call 911. |

**iLet Bionic supplies to be kept with you at all times:**

- Glucose meter and strips
- Extra CGM (continuous glucose monitor) sensor
- Insulin vial and syringe or insulin pen and pen needle
- Urine ketone strips or blood ketone meter strips
- Extra infusion set and cartridge

## Hyperglycemia: Pen/Syringe Injection

Blood Glucose is greater than 250 mg/dl

1. When was last correction factor (CF) given? If greater than 3 hours, give CF.
2. Check for ketones.
3. Drink sugar free/caffeine free fluids.

**Negative**

1. Return to class with sugar free/caffeine free fluids.
2. Resume normal activities.

1. Recheck blood glucose in 3 hours.
2. If ketones are positive, refer to pathway.
3. If ketones are negative, see above.

**Trace to Small Ketones Present**

No Nausea or Vomiting

1. Drink sugar free/ caffeine free fluids.
2. Return to class.
3. Resume all normal activities.

1. Recheck blood glucose and ketones every 3 hours until negative.
2. Refer to pathway with ketone results.
3. Notify parents of ketone presence.

**Moderate to Large Ketones**

No Nausea or Vomiting

1. Drink sugar free/caffeine free fluids.
2. Return to class.
3. No exercise.

1. Recheck blood glucose and ketones every 3 hours until negative.
2. Refer to pathway with ketone results.
3. Notify parents of ketone presence.

**Ketones Present (ANY level)**

**AND** Nausea or Vomiting

1. Call parents. Child should be sent home.

1. If unable to reach parents, Call Diabetes doctor on call. 205-638-9107.
2. Request a sick day page.
3. If you do not receive a callback within 15 minutes, call back to office as above.

- Student shall be permitted to have access to water by keeping a water bottle in his/her possession at his/her desk, or by allowing student unrestricted access to drinking fountain.
- **Student is not to miss class by sitting in the nurse's office or be sent home unless vomiting or feeling poorly.**

# Hypoglycemia: Insulin Pump

*****The ADA recommends treating hypoglycemia for blood glucoses less than 70 mg/dL using up to 15 grams of fast-acting carbohydrates.*****

**Mild/Moderate**
Signs/Symptoms:
Pale, Weak, Shaky, Dizzy, Headache, Sweaty, Hungry, Tired, Falling Asleep, Confused, Irritable, Restless

Check blood glucose. If less than **70 mg/dL**:

1. Give **up to** 15 grams of fast-acting carbohydrates (for example: up to 4 glucose tablets, 4 oz. fruit juice, or 4 oz. of regular soda).
   - If unable to safely swallow, elevate head & use 15 grams of glucose/cake decorating gel applied to inner cheeks.
2. Wait 15 minutes & recheck blood glucose.
3. If blood glucose is still below **70 mg/dL,** re-treat.
4. Continue to repeat treatment & recheck blood glucose every 15 minutes until blood glucose is greater than **70 mg/dL**.

1. Feed the student a meal or up to 15 grams carbohydrate snack with protein (Ex: peanut butter crackers, cheese crackers, carton of milk).
2. **What to enter in the insulin pump after low blood glucose is now above 70 mg/dL:**
   - **Do NOT enter the current blood glucose reading after the fast-acting carbohydrate treatment, or the pump may administer an unnecessary correction.**
   - **Instead, enter the lowest blood glucose reading the student had before treating with fast-acting carbohydrates. This will allow the insulin pump to adjust the bolus to compensate for the low blood glucose.**
   - **When entering the meal or snack carbohydrates into the pump, do NOT include the fast-acting carbohydrates used to treat the low in the carbohydrate total. Only enter the carbohydrates for the meal or snack the student will be eating after their blood glucose is above 70 mg/dL.**

   *(For OmniPod users: the lowest blood glucose entry is 55 mg/dL. If blood glucose was less than 55 mg/dL, enter 55 mg/dL into the pump. If blood glucose was 55mg/dL or greater, enter the initially treated low blood glucose number into the pump).*
3. Student to return to class.

**DO NOT SKIP MEAL INSULIN DOSE FOR LOW BLOOD GLUCOSE**

**Severe**
Signs/Symptoms:
Combative, Unable to respond to commands, Seizure, or Loss of consciousness

**Remain with student.**

1. Suspending basal insulin:
   - If the pump is not an automated pump and is in manual mode, immediately stop/suspend insulin pump.
   - If the pump is an automated pump, it is designed to automatically suspend basal insulin with lows.
2. Give nothing by mouth.
3. Give prescribed dose of **Glucagon/Baqsimi/Gvoke.** Refer to Prescriber Authorization Order as directed (see pgs. 12-13 for administration directions).
4. Place student on side.
5. Call 911 while waiting.
6. Continue to follow instructions on pages 12-13.
7. Call parent/guardian.
8. Call Diabetes Provider (205-638-9107).
9. Stay with student until help arrives.

(Note: insulin pumps in Automated Mode/Control IQ/SmartGuard will self-adjust basal insulin)

**Age Specific Desired Target:**
**90-180 mg/dL** = students less than 6 years
**80-180 mg/dL** = students 6 to less than 13 years
**70-130 mg/dL** = students 13 years and older

# Hypoglycemia: Pen/Syringe Injections

*****The ADA recommends treating hypoglycemia for blood glucoses less than 70 mg/dL using up to 15 grams of fast-acting carbohydrates.*****

**Mild/Moderate**
Signs/Symptoms:
Pale, Weak, Shaky, Dizzy, Headache, Sweaty, Hungry, Tired, Falling Asleep, Confused, Irritable, Restless

Check blood glucose.

If less than 70 mg/dL, remain with student.

Give **up to** 15 grams of fast-acting carbohydrates.
- Ex: **Up to** 4 glucose tablets, 4 oz fruit juice or regular soda

* If unable to safely swallow, elevate head & use 15 grams of glucose/cake decorating gel applied to inner cheeks/gum area.

1. Wait 15 minutes & recheck blood glucose.
2. Repeat treatment & recheck blood glucose every 15 minutes until blood glucose is greater than 70 mg/dL.

If meal/snack is greater than 1 hour away:
1. Give student small snack (up to 15 grams of carbohydrates) with protein.
2. Ex: peanut butter crackers, cheese crackers, carton of milk.

If meal/snack is less than 1 hour away:
1. Student okay to return to class/lunch.

DO NOT SKIP MEAL INSULIN DOSE FOR LOW BLOOD GLUCOSE

If less than age specific desired target range, AND greater than 70 mg/dL:

Give small snack (up to 15 grams of carbs with protein).
- Ex: peanut butter crackers, cheese crackers, carton of milk.

Wait 30 minutes & recheck blood glucose.

If blood glucose is less than 70 mg/dL:
1. Follow the algorithm for treating blood sugars less than 70mg/dL to the left side of page.

If blood glucose is less than age specific desired target, BUT greater than 70 mg/dL:

If fingerstick glucose:
1. Give another small snack and repeat algorithm as above.

If using CGM glucose:
1. If arrow is → ↘ ↓ Give small snack and repeat steps above.
2. If arrow is ↗ ↑ Wait 30 minutes & repeat steps above.

**Age Specific Desired Target:**
**90-180 mg/dL** = students <6 years
**80-180 mg/dL** = students 6 - <13 years
**70-130 mg/dL** = students >13 years

# Hypoglycemia: Pen/Syringe Injections

*****The ADA recommends treating hypoglycemia for blood glucoses less than 70 mg/dL using up to 15 grams of fast-acting carbohydrates.*****

**Severe**

Signs/Symptoms:
Combative, Unable to respond to commands, Seizure, or Loss of consciousness

**Remain with student.**

1. Give nothing by mouth.
   Give prescribed dose of **Glucagon/Baqsimi/GVoke** - refer to Prescriber Authorization Order as directed (see pgs. 12-13 for administration directions).
2. Place student on side.
3. Call 911 while waiting.
4. Continue to follow instructions on page 10-11.
5. Call parent/guardian.
6. Call Diabetes Provider (205-638-9107).
7. Stay with student until help arrives.

**Age Specific Desired Target:**
**90-180 mg/dL** = students less than 6 years
**80-180 mg/dL** = students 6 to less than 13 years
**70-130 mg/dL** = students 13 years and older

## Emergency Medication for Severe Hypoglycemia in the School Settings:

**Symptoms for Use:**

- Combativeness
- Inability to swallow
- Disorientation
- Seizures
- Loss of consciousness

**Administer one of the following ordered emergency medications:**

**Steps for administering glucagon/glucagen:**

1. Remove the plastic caps/covers from the syringe and the vial.
2. Inject all the sterile water from the syringe into the small vial of glucagon/glucagen powder/pill. **Roll** until pill is fully dissolved.
3. Once the solution is clear, draw out (also refer to medication prescriber authorization form):
    a. 0.5 mg into the syringe = ½ mL or the first line you see on the syringe when it is inverted if the student is 44 pounds or less.
    b. 1 mg into the syringe = 1 mL or the second line you see on the syringe when it is inverted if the student is greater than 44 pounds.
4. Inject glucagon/glucagen in upper/outer thighs, or upper arms, or buttocks.
5. Turn the child on his/her side and check blood glucose.
6. Wait 15 minutes and assess for signs of improvement. Call 911 while waiting.
7. Recheck blood glucose every 15 minutes until blood glucose returns to normal or paramedics arrive.

**Steps for administering Baqsimi:**

1. Remove the shrink-wrap by pulling on the red stripe.
2. Open the lid and remove the device from the tube.
3. Hold the device between fingers and thumb. Do not push plunger yet.
4. Insert tip into one nostril until fingers touch the outside of the nose.
5. Push plunger firmly all the way in. Dose is complete when the green line disappears.
6. Turn the child on his/her side and check blood glucose.
7. Wait 15 minutes and assess for signs of improvement. Call 911 while waiting.
8. Recheck blood glucose every 15 minutes until blood glucose returns to normal or paramedics arrive.

**Steps for administering GVoke Pre-filled Syringe:**

1. Pinch the skin at the injection site and keep pinching for the entire injection.
2. Insert the needle into the skin at a 90° angle without touching the plunger.
3. Push the plunger down as far as it will go to inject all the liquid into the skin. Push the plunger quickly.
4. Turn the child on his/her side and check blood glucose.
5. Wait 15 minutes and assess for signs of improvement. Call 911 while waiting.
6. Recheck blood glucose every 15 minutes until blood glucose returns to normal or paramedics arrive.

**Steps for administering GVoke Hypo Pen:**

1. Pull red cap off.
2. Administer into upper arm, stomach, or thigh.
3. Push yellow end down on skin and hold 5 seconds. Do not release until second click and/or window turns red.
4. Turn the child on his/her side and check blood glucose.
5. Wait 15 minutes and assess for signs of improvement. Call 911 while waiting.
6. Recheck blood glucose every 15 minutes until blood glucose returns to normal or paramedics arrive.

**Follow the steps below when the student responds to treatment, becomes conscious, and more cooperative:**

- Offer 4 oz. of regular soda, regular Gatorade, or juice. Student may only tolerate sips of liquid at this time.
- Check the blood glucose if a meter is available.
- Offer a snack or let the child go to lunch for a full meal (with supervision from an adult) if not nauseated or vomiting.
- Notify the Children's of Alabama (COA) Diabetes Team at (205) 638-9107 and ask for a diabetes educator (if during business hours) or (205) 638-9100 (if after hours) and ask for the diabetes doctor on call.
- Recheck the blood glucose in 30 minutes to 1 hour and continue to follow MD instructions received.
- Call the parent/caregivers ASAP.
- Instruct the parent/caregivers to call the student's diabetes doctor.

# Plans for Athletes with Diabetes:

Our plan is to ensure safe physical activity for students with diabetes.

**If a complete sports physical is needed, please obtain from his/her Primary Medical Doctor/Nurse Practitioner.**

**Prior to the beginning of the sports season the school nurse will:**

- Meet with the coaches and/or athletic trainers to discuss the emergency plan.
- Provide the coach and trainer with a diabetes emergency kit containing:
  - Glucose/cake gel
  - Glucose tablets
  - Juice box / Gatorade or other sports drinks
  - Carbohydrate snacks with protein. Ex: peanut butter crackers, cheese crackers, etc.
  - Copies of the student diabetes school orders.
    - **Contact the family to refill supplies.**
- Confirm that EMS can administer emergency medications and they carry it on their trucks (parents can administer emergency medications if present)

**Prior to practice/game/event:**

- Many students with diabetes may change his/her insulin dose on days he/she anticipates a practice/game/event. Notifying the parents of scheduling changes (extra practices or cancellations) as soon as possible helps the students (and parents) determine insulin needs.
- The student will be informed by the coach the location of the diabetes kit. Encourage the student to stop the sport if he/she feels "low." The student needs to check his/her blood glucose and treat if appropriate.
- The nurse will review with the student expectations for participating in sports and review the emergency procedures.
- The student should have a means of signaling the coach/trainer if he/she needs to leave the playing field.
- The student will check and record blood glucoses prior to practice/game/event.
  - If the student is <70 mg/dL, treat the low as described on pages 9, 10, and 11.
  - If the student's blood glucose is between 70-100 mg/dL, the student will have up to a 15-gram carbohydrate snack with protein (refer to page 9, 10, and 11).
  - Student will check for ketones for blood glucoses greater than 250 mg/dL.
    - For negative, trace, or small ketones with no signs of illness, drink sugar free fluids and participate in practice/game/event.
    - If moderate to large ketones or signs of illness are present, the nurse and parent will be notified. The student will not participate in practice/event/game.

**After the practice/game/event:**

- The student will check blood glucose at the end of the practice/game/event.
  - If the student is <70 mg/dL, treat the low as described on pages 9, 10, and 11.
  - If the student's blood glucose is between 70-100 mg/dL, the student will have up to a 15-gram carbohydrate snack with protein (refer to page 9, 10, and 11).

**Emergency Plan:** (see actual plan for treating hypoglycemia on pages 9, 10, & 11)

- If the student is **awake** and **able to swallow** – he/she will check his/her blood glucose and treat accordingly with a quick acting sugar source followed by a snack with protein.
- For severe hypoglycemia (combative, loss of consciousness, or seizures) – the coach will activate EMS, apply glucose/cake gel to the inner cheek/gum area per hypoglycemia pathway. If unconscious, position the student on his/her side and then apply gel. Monitor the student until paramedics arrive.
- The paramedics will check the blood glucose and administer emergency medication according to their protocol and the MD orders.

**The school nurse will be notified of all incidences of severe hypoglycemia.**

***If parents are present at an athletic event or practice and severe hypoglycemia occurs, parent may immediately administer emergency medication.***

## Transportation by School Bus:

Check blood glucoses **IF** ordered by the provider (on prescriber authorization form), if the student feels low, and/or signs/symptoms of hypoglycemia noted. If so, please ensure that the student's blood glucose is **70 mg/dL** or above, or less than **350 mg/dL** with no ketones or vomiting present before boarding the bus.

It is important for the student with diabetes to take food with him/her on the bus. If the student feels low, he/she must be allowed to treat the low with fast acting carbohydrates, followed by a carbohydrate snack with protein.

If the student has a routinely scheduled afternoon snack, and it is not time for the snack (such as early dismissal, field trip, etc.), please allow the student to carry his/her snack on the bus.

- Student will need his/her snack, if scheduled, and fast-acting carbohydrates for treating **lows** prior to boarding the bus (review pages 9 & 10 for examples of fast and long-acting carbohydrates).
- Parents will provide this snack, as well as a copy of the student's daily schedule listing meal and snack times.

**If student is:**

- **70 mg/dL or below:**
  - Treat as described on pages 9, 10, and 11 and notify parent(s)/caregiver(s).
    - If blood glucose is greater than 70 mg/dL 15 minutes after treatment, place on bus.
    - If blood glucose is less than 70 mg/dL 15 minutes after treatment, continue to follow hypoglycemia pathway and arrange alternate transportation with parent(s)/caregiver(s).

- **71 mg/dL – 350 mg/dL:**
  - Allow student to board the bus.

- **Above 350 mg/dL with no ketones, no vomiting, and feeling well:**
  - Student may ride the bus.

- **Above 350 mg/dL with ketones and feeling well:**
  - Treat as described on pages 6, 7, and 8 and notify parent(s)/caregiver(s).
  - Student may ride the bus unless that bus ride is longer than 1 hour in duration. Otherwise, alternate transportation should be arranged.

- **Above 350 mg/dL with urine ketones and not feeling well:**
  - Treat as described on page 6, 7, and 8.
  - Notify parent(s)/caregiver(s) and arrange for alternate transportation.

## FYI

## BLOOD GLUCOSE MONITORS:

We have included the ranges for the meters we have and use below. If you receive a "HI" on one of the meters listed below, plug that number into your formula for the correction factor, or use for dose on sliding scale.

| Meter | Range | |
|---|---|---|
| | If the meter reads "LO" | If the meter reads "HI" |
| Accu-chek Nano/Connect | 20 | 600 |
| Accu-chek Aviva | 10 | 600 |
| Accu-chek Guide | 10 | 600 |
| Accu-Chek Guide Me | 20 | 600 |
| Contour | 10 | 600 |
| Contour Next EZ & Next & Next ONE | 20 | 600 |
| Contour USB | 20 | 600 |
| Freestyle | 20 | 500 |
| Freestyle Freedom | 20 | 500 |
| Freestyle Lite | 20 | 500 |
| OneTouch Ultra Mini | 20 | 500 |
| OneTouch Ultra 2 | 20 | 600 |
| One Touch Verio IQ | 20 | 600 |
| One Touch Reflect | 20 | 600 |
| Relion | 20 | 600 |
| True Metrix | 20 | 600 |

*Meter availability changes frequently. If your student has a meter that is not listed on this page, the information you need is available in the manufacturer's instruction manual. *