

Classroom Health Care Plan

Diabetes

Name:	Effective Date:
Parent:	School:
Doctor:	School Nurse:
SpEd: <input type="checkbox"/> IEP <input type="checkbox"/> 504	DOB:
Bus: <input type="checkbox"/> yes <input type="checkbox"/> no	Allergies:

(Personal data: i.e. onset, brief history, etc.)

Diabetes (Juvenile Onset) is a condition in which the body cannot produce enough insulin. Insulin is the key for the body to use the sugars that is in the blood that is the result of food digestion. This provides the energy for all of our cells. Without insulin, high levels of sugar build in the blood stream (**hyperglycemia**) and too little sugar can get into the cells. Insulin is given to correct high blood sugar and help to make sugar available to the cells. Insulin is given based on a formula of how much food will be eaten and the normal activity. But, insulin can also cause all the sugar in the bloodstream to be used up if for any reason the formula did not work. When all the sugar is used up, no energy is available for the cells and vital organs. This is called an **insulin reaction** or **hypoglycemia**. Hypoglycemia can be life threatening, because the only energy source for the brain is blood sugar.

Recently, some children have been diagnosed with a **Type I and Type II Diabetes**.
[_____] is one of these children. With Type II diabetes the pancreas is making some insulin, but it is an insufficient amount of insulin for his/her intake of sugar.
[_____] is taking insulin, but he/she also takes oral antidiabetic medication (**Glucophage, Glucotrol**) to increase production of insulin, decreases production of sugar in the liver, and slows the absorption of glucose from the intestine.

There is no current cure for diabetes. Treatment is aimed at maintaining even levels of blood sugar and is a combination of insulin injections, meal planning, and exercise. Diabetes is not the result of eating too much sugar. It is not contagious and does not need to be hidden from classmates. Children with diabetes are encouraged to participate in all school activities.

There is a blood test, hemoglobin A1C, done regularly as an indicator of how the blood sugar control has been over an extended period, not just at the moment in time.

[_____]'s A1C has shown _____.

Problem: Blood sugar control

Goal: Maintain even level of blood sugar; avoid hypoglycemia and hyperglycemia.

Action:

1. Diet must be planned for individual needs. The meal planning for diabetes has changed and varies with the types of insulin being used. Many diabetics eat what and when they want to and take a dose of insulin each time they eat. Others follow a carefully planned meal plan. [_____] will need:
 - **10:00 AM snack** - crackers or fruit snack provided by parent.
 - **Lunch** - [_____] eats school lunch. It is essential that [_____] be as consistent as possible in following his/her meal plan. He/she is able/unable to make his/her own food choices.
 - **Lunch** - [_____] is taught to count the carbohydrates he/she eats. The insulin he/she takes is based on this amount. He/she takes ___ units of insulin for every ___ grams of carbohydrate.
 - **Lunch** - [_____] brings lunch from home and should eat only the foods parent provides. He/She should be encouraged to eat all the food provided to avoid episodes of hypoglycemia.
 - **3:00 PM snack** - crackers or fruit snack provided by parent.
2. In the event of a special situation such as a class party, [_____] can calculate if he/she will need additional insulin. [_____] may choose to take the treat home so that it can be incorporated into the meal plan.
3. [_____] does not need to limit the protein or fat intake. It is not necessary to use sugar free products, but all carbohydrates need to be counted and the insulin adjusted as needed.
4. Exercise is important and assists in blood sugar control. Exercise causes better and faster usage of blood sugar.
 - The same amount of exercise at similar times is recommended.
 - A change in exercise regimen has to be compensated with a change in meal pattern.
 - **Increased exercise without an increase in food can lead to hypoglycemia (low blood sugar), which can be an emergency.**
 - It is best to plan PE and recess after meals or snacks.

Problem: Blood sugar monitoring (Glucometer checks)

Goal: Student and school staff will perform procedure correctly at designated time.

Action:

1. [_____] requires daily blood sugar monitoring by glucometer at _____ and as needed.
 - a. He/she is able to do the procedure with supervision OR
 - b. He/she requires a school staff member to perform the procedure.
2. Assemble all equipment provided with the glucometer.
3. Wash your hands.
4. Put on disposable gloves if you are doing the procedure.
5. Remove a reagent strip from the container. Tightly shut lid. Do not touch end of strip.
6. Cleanse student's fingertip with soap and water. Allow the finger to dry.
7. Prick the side of the finger with penlet.
8. Allow a small drop of blood to form on the fingertip.
9. Carefully touch the drop of blood (not the finger) to the strip.
10. Dispose of lancet in a sharps receptacle; be careful not to prick yourself.
11. After you have read the strip, record the value in the student's daily health record.
 - a. If the value is between _____ **mg/dl** and _____ **mg/dl** no action is necessary.
 - b. If the value is less than _____ **mg/dl** treat as **hypoglycemia** and give food snack or lunch.
 - c. If the value is greater than _____ **mg/dl** treat as **hyperglycemia**.
 - d. Notify parents of all reactions and, record any action you took in the student record.
12. Occasionally, the student's finger may become sore from repeated tests. If sore or infected fingers are noted, contact school nurse and parent for further instructions.

Problem: Hypoglycemia (low blood sugar) or "Insulin Reaction"

Goal: Early recognition and treatment

Action:

1. Low blood sugar (hypoglycemia or insulin reaction) may occur especially after exercise, before meals or if meals are missed, or during stomach upsets.
 - a. Be aware that treatment of early symptoms is the best prevention of an emergency situation. Listen to what the student tells you and how he/she appears. Do not ignore early symptoms.
 - b. On field trips, during transportation, and other times away from the school building, ensure [_____] receives scheduled snacks and meals at the indicated time and, take into consideration exercise.
 - c. Carry a source of sugar on such trips in case of hypoglycemia reaction.
2. Symptoms of hypoglycemia are:

a. Early Symptoms

Paleness

Shakiness

Sweating

Sleepiness

Hunger

Crying

Headache

Tingling

Abdominal Pain

Dizziness

Decreased academic performance

Mood changes (tearful, irritable, depressed)

b. Late symptoms of hypoglycemia

Confusion

Poor coordination

Blurred vision

Staggering

c. Advanced symptoms of hypoglycemia can result in brain damage or death.

Coma

Seizure or convulsions

3. If you suspect a hypoglycemia reaction **you must take action immediately.**

a. If trained, check blood sugar level. If below _____ treat as hypoglycemia.

b. If [_____] is conscious and alert, and, able to swallow, give a food item high in sugar. **Give one of the following high sugar items:**

i. **6 oz. of sugared pop (not sugar free)**

ii. **1/2 to 2/3 cup of sweetened fruit juice**

iii. **Milk- one cup (1 school sized carton)**

iv. **2-3 B-D Glucose tablets**

c. Follow with 1/2 meat sandwich or peanut butter sandwich and a carton of milk if lunch is more than 45 minutes away.

d. [_____] should recover within 15 - 20 minutes. If not greatly improved repeat high-sugar food item.

e. If [_____] is lethargic, and unresponsive, or cannot swallow, call for emergency medical assistance (**911**) immediately. Notify parents of all reactions.

f. Until [_____] is fully alert and free of symptoms, do not leave [_____] alone.

g. If the student is having repeated episodes of hypoglycemia his/her meal pattern may need to be altered. Contact parent and school nurse if this occurs.

Problem: Hyperglycemia (Diabetic Ketoacidosis)

Goal: Early recognition of symptoms

Action:

1. Hyperglycemia is too much sugar in the blood and is the result of eating more food than the cells can use or not having enough insulin to use up the sugar.

2. There are early and late symptoms of hyperglycemia.

a. Early symptoms of hyperglycemia

Increased appetite

Increased thirst

Rapid weight loss

Increased urination

b. Late symptoms of hyperglycemia

Loss of appetite

Nausea and vomiting

Weakness

Disorientation

Rapid respiration

Loss of consciousness/Coma

3. Hyperglycemia comes on slowly and is **not** the medical emergency that hypoglycemia is. School staff should know that it is not healthy or good for the diabetic to have high blood sugars but the parents and physician handle this problem with adjustments in insulin dose.

4. Advanced symptoms of hyperglycemia are similar to those of hypoglycemia.
 - a. The best way to avoid confusion is to do a blood sugar test with a glucometer. If this is unavailable treat as hypoglycemia (see above).
 - b. Early symptoms should be reported promptly to parents, school nurse, and doctor. This may require adjustment of diet, exercise or medication.
 - c. **Advance symptoms of Loss of Consciousness or Coma require immediate emergency intervention no matter the cause.**

Problem: Insulin Therapy

Goal: Early recognition and reporting of side effects

Action:

1. [_____] takes (**Humalog and NPH, Humalog and Lente, Humalog and Ultralente, Regular and NPH, Regular & Lente, Regular & Ultralente**) Insulin at home at _____ and _____.
2. [_____] takes **Lantus** (Aventis, Glargine) insulin which is a longer acting insulin with no significant peaks and works for many people. The goal is a peakless, steady absorption of the insulin into the bloodstream. [_____] will always give a dose of insulin to cover food to be eaten at the time [_____] eats. This dose of insulin (usually a very fast acting type such as Humalog) depends upon the amount of carbohydrate to be eaten.
3. Complications of insulin therapy include:
 - a. The biggest concern is too much insulin or a fall in the blood sugar. See *hypoglycemia*.
 - b. The loss of fat at the injection site. This can be avoided by rotating the injection site.
 - c. Local or body wide allergic reactions. Symptoms include:

Itching	Sensation of chest pressure
Hives	Loss of consciousness
Breathing difficulty	Cessation of breathing.
 - d. If these symptoms are noted, treat as an emergency and call **911**.

Problem: Scheduled insulin injections

Goal: Safe injections without complications and, independence in administering own insulin

Action:

1. Insulin is a hormone produced by the pancreas. In diabetes, the body does not produce enough insulin. Insulin helps the body's cells absorb glucose (sugar), which is necessary for energy. There are several different types of insulin. Some insulins are designed to work very quickly and other work slowly. [_____] is given a combination of _____.
2. [_____] may require insulin injection if blood sugar is _____ or higher.
 - a. [_____] is/is not able to self-administer the injections.

- b. Insulin must be kept in a refrigerator until ready to use.
 - c. Supplies, especially needles, should be kept in a locked cabinet.
 - d. _____ will supervise the insulin injection.
 - e. Always observe for insulin leaking at the site of injection. Holding the injection site of a few seconds can decrease the amount of insulin leaked.
3. (____) uses a Button Infuser used in multiple injection therapy. The multiple daily injections are given through a diaphragm connected to tubing that has been placed beneath the skin. This placement is usually done on a weekly basis.
 4. (____) uses an Insulin Pen (Accupen, NovoPen, Novolinpen). An insulin pen is a cartridge or refilled device that can be set to deliver a desired dose of insulin from the cartridge.
 5. (____) uses an InDuo which is a combined glucose monitoring and insulin dosing system.
 6. (____) uses an auto injector. (Bushes Automatic Injector, Injector, Injectomatic, Autojector, Inject-ease, Instaject, Monojet) This device helps the needle puncture the skin. The jet injectors will blow the insulin through the skin.
 - a. Always prime your insulin pen before injecting.
 - b. Always attach a new pen needle right before each injection. Never leave the pen needle attached between injections.
 - c. When you inject, keep the needle in the skin at least until you count to _____.
 - d. *If needed, add specific directions for appropriate device that is in use*

Problem: Insulin Pump

Goal: Safe pump use without complications and, independence in administering own insulin

Action:

1. [_____] uses an (Animas, Minimed, Paradigm, or Disetronic... choose one) insulin pump. An insulin pump is a highly technical instrument that administers a fast acting insulin [Humalog (Lispro), Novolog (Aspart)] continually at very small intervals throughout a 24-hour period to mimic the release of insulin from a healthy pancreas. You can also use the pump for an extra dose before or after meals or as needed. To be a candidate for a pump you must be knowledgeable about diabetes, have stable diabetes, and be motivated. For safety reasons, blood sugar test must be taken four to six times a day.
 - a. Any interruption in the insulin delivery can cause the blood sugar to rise. Plugged tubing, low batteries, running out of insulin, or skin infection or abscess can stop or interfere with the insulin delivery.

- b. [_____] will need to take extra insulin before or after lunch.
- c. Contact the parent and/or the pump manufacturer (1-800 # located on the back of the pump) for the following problems:

Pump alarms	Blank screen	Dead batteries
Pump becomes disconnected		Runs out of insulin.
- d. Back up supplies are kept _____.

Problem: Antidiabetic Medication

Goal: To increase the production of insulin from the pancreas

Action:

1. [_____] takes (**Glucophage, Glucotrol**) in addition to his/her insulin. Hypoglycemia is always a major concern.
2. [_____] should wear sunscreen and protective clothing to prevent photosensitivity reactions.
3. Unusual weight gain, swelling of ankles, drowsiness, shortness of breath, muscle cramps, sore throat, rash, unusual bleeding or bruising should be reported to the parents and the school nurse.

Physician's Signature

Parent's Signature

School Nurse Signature

School Contact

School Contact

Emergency Treatment For Diabetes

Warning Signs of Insulin Reaction, Hypoglycemia or Low Blood Sugar:

Sudden hunger	Headache	Sweating
Shakiness	Nervousness	Paleness
Fatigue	Unusual Drowsiness	Crying
Irritable	Confusion	Concentration
Inappropriate Actions (<i>describe</i>):		

Treatment

Hypoglycemia is a medical emergency and requires immediate treatment! If possible, test the blood glucose. If less than 80 give one of the following items. If you do not know how to test or there is no meter to test with... TREAT anyway.

The best rule is “When in doubt TREAT!”

1. Give one of the following:
 - o Juice _ cup (4-6 oz.)
 - o Milk 1 cup or 1 school sized carton
 - o Regular soda pop (NOT DIET)
 - o Chew 2-3 glucose tablets, followed by water.
2. Stay with the child, repeat the treatment if necessary in 15 minutes, follow with lunch or a snack.
3. If found unresponsive call **911** and give the oral Glyco-Gell.

Hypoglycemia is most likely to occur:

- When meals or snacks are missed or delayed
- When participating in a strenuous activity just before lunch
- During a lengthy field trip or field day activity.

Thing to know about a High Blood Sugar or Hyperglycemia:

1. Warning signs include being extremely thirsty and frequent urination.
2. Common causes include:
 - o Illness
 - o Eating too much
 - o Missed insulin
 - o Stress
3. Treatment includes drinking extra fluids, exercise, and insulin. Parents can be notified for blood sugars above 300. High blood sugars are not good for the child, but they do not pose the medical emergency that low blood sugars do.