

Before School Starts

Your child has recently been diagnosed to have diabetes. You are still coping with all the new things you need to know about this condition, when you arrive at the next major turn: going back to school. Since her blood sugars have come to a reasonable level, she has now resumed studies. She will now need a little extra attention at school, but you do not want that to create complexes in her. So what are the issues you must tackle?

1. Meet with the **school principal** and go over the basics of what diabetes is (perhaps with the brief handout given later in this article, or some other pamphlets), and what the child's specific needs are (eg need to do blood testing, need for extra snacks especially before sports/ games, access to emergency sugar in case of a hypo). School authorities will have to designate a place to let her test blood sugar (eg school clinic).

2. Meet your **child's teacher** and go over these points with her in addition to what you have discussed with the Principal. I suggest you discuss them a few points at a time, so she does not get overloaded/ apprehensive:

a. Briefly describe what it means to have diabetes. You may like to give the brief handout appended.

b. Provide her my *phone number* in case she has questions or doubts.

c. Tell her that your child must eat a *mid-morning snack* (and mid-afternoon snacks, for day schools) and that she may need inobtrusively to check the snack has been eaten. Regardless of the day's activities, she must be allowed to eat these snacks. That might mean bringing food to an assembly or field trip.

d. Find out the *school's schedule* for tiffin/ games periods, etc., so you can plan amount of snack accordingly.

e. Describe what happens when your child is *hypoglycemic*. Since every child reacts differently, tell her what to look for and how to respond. Provide her with the one-page instruction sheet appended.

f. Give the teacher a *supply of blood glucose testing strips*, glucose tablets, sugar and extra snack foods (glucose biscuits are convenient) to keep in her desk in case they are needed. Some schools insist the strips are kept only in the clinic. I suggest you leave a Horizon meter, as it is less expensive, and Johnson & Johnson have bottles with just 10 strips also, while Roche has only 25 and 50 strip bottles.

g. Teach the class teacher and clinic attendant how to *test blood glucose*, since your child is too young.

h. Impress upon the teacher in no uncertain terms that if she suspects that your child is having a hypo, that she is *not to be left alone*. If your child must go to the clinic to perform a blood test, make sure the teacher understands that someone should go with her.

i. Request her to tactfully explain to her classmates that she has been a bit unwell, and will therefore need some help occasionally. The teacher does not need to go into specific details of what she has. She can ask them to inform her/ someone in authority if your child is behaving oddly. This ensures that the classmates, rather than resenting the extra attention and allowances being given to the child,

understand and provide help.

j. Ask her to *put up a brief note* mentioning the child's diabetes and what to do in an emergency in the * staff room, * main office, * class attendance register, * bus register, and any * other place where other teachers are likely to look in case an emergency occurs in her absence.

k. Request her that the extra attention and concessions the child is given should be the minimum necessary, and as far as possible she should not be treated differently from other children.

3. Meet **the bus driver and conductor; school nurse and doctor; peons, ayahs and toilet attendants; and all other teachers** that the child will see, including games teachers, music, art and other activity teachers, the librarian. Let them know that she has diabetes, ask them to be on the lookout for an insulin reaction, and tell them not to penalize her if urination is frequent.

4. An extra note for the **games teachers**: Make sure they know that your child needs extra snacks in case on *unexpected* exercise. Also that she should not exercise with a blood sugar > 240 mg/dl, since such a high sugar can indicate insufficient insulin and, in this case, exercise can actually cause the blood sugar to rise.

5. Later, ensure the supply of blood glucose strips and sugar is maintained regularly at the school clinic, and when she gets promoted, that the new class teacher knows what to do. Change the strips after their expiry date.

6. Provide all concerned with your home/ office/ emergency **phone/ mobile numbers**. A format is given later in this article.

7. Keep in regular touch with the school staff, for reinforcement, and especially during times when she has a minor illness, or during intensive preparations for an event (eg sports day/cultural evening).

8. You may want to give photocopies of the following summary and completed one page guide to the **class teacher/ games teacher/ school office/ bus/ etc**

The One- Page Care Guide for Teachers: has instructions that describe what you expect of the teacher, as well as how to contact you/ your doctor in an emergency. You should include a list of symptoms that Your child exhibits when she is hypoglycemic, when you expect her to perform blood glucose tests, and how to respond to episodes of hypoglycemia.

Written instructions are particularly important when there is a substitute teacher. Make sure the one page guide is prominently posted in the classroom, preferably close to the teacher's desk, but in a position not visible to the rest of the class. You might even want to print it on bright yellow/ pink paper so that it stands out.

INTRODUCTION: No cause for concern

*Diabetes can be controlled
Diabetes is not contagious.*

Diabetes Defined: *Diabetes is a chronic disease which impairs the body's ability to use food properly. In the insulin-dependent diabetic, the pancreas does not produce insulin, a hormone necessary to burn sugar and convert it to energy for the cells. Because the sugar in the blood can't be used, it builds up in the blood stream even while the body is starved for energy. A person with this type of diabetes must take one or more injections of insulin daily to stay alive. Insulin, however, is not a cure. It is only a means of controlling the disease.*

How Diabetes Is Controlled: *Diabetes control means keeping the level of sugar (glucose) in the blood as close to normal as possible. The three elements of diabetes control are:*

- * Food*
- * Exercise*
- * Insulin*

The rule of thumb is: food makes the glucose level rise; exercise and insulin make the glucose level fall. Diabetes control is a constant balancing act of these three factors. If the balance is thrown off, there is the danger of either of two diabetic emergencies: Hypoglycemia (low blood sugar--insulin reaction or insulin "shock") or hyperglycemia (high blood sugar).

Insulin Reaction or Shock (Low Blood Sugar/ Hypoglycemia)

*** Symptoms appear rapidly:** *One or more of these symptoms may suddenly occur. Each child has a particular set of personal symptoms and you will come to recognize them.*

<i>Inappropriate response</i>	<i>Confusion and inattention</i>
<i>Drowsiness</i>	<i>Pale complexion</i>
<i>Perspiration</i>	<i>Headache</i>
<i>Crankiness</i>	<i>Lack of coordination</i>
<i>Trembling</i>	<i>Sudden hunger</i>
<i>Dizziness</i>	<i>May seem intoxicated</i>

Low blood sugar may be caused by eating too little food or not eating soon enough, too much exercise without eating, or too much insulin.

*** Treatment:** *Provide sugar immediately. This can be 2 large sugar cubes, 1/2 glass of fruit juice, a regular cold drink (not diet drink), or 4-5 sweets. She may need coaxing to eat. Within 10 minutes, she should be feeling better, at which point you can give her some additional food and let her resume normal activities.*

- * If she does not immediately respond, continue to administer sugar.*
- * If she does not improve in 10-15 min, call the parents & doctor. Continue to give sugar.*
- * Make sure the hypo has been taken care of before she is left alone or allowed to go home.*

High Blood Sugar/ Hyperglycemia (Diabetic Coma):

*** Symptoms occur gradually,** *usually over a period of days:*

<i>Extreme thirst</i>	<i>Drowsiness, lethargy</i>
<i>Sugar in urine</i>	<i>Dry, hot skin</i>
<i>Blood test showing high sugar level</i>	<i>Not hungry</i>
<i>Fruity or wine-like odor on breath</i>	<i>Heavy, labored breathing</i>
<i>Eventual stupor or unconsciousness</i>	

***Treatment:** Take this child to the hospital. If you are unable to test her blood sugar and therefore aren't sure whether she is suffering from high or low blood sugar, try giving some sugar-containing food or drink. This relatively small amount won't hurt. If there is no response in 10-15 minutes, she needs medical attention.

A Diabetic Child's Daily Routine: Consistency is the key to diabetic control. Regular meals, regular exercise, regular insulin. In addition, she will need to test his or her blood sugar level at various times of the day to determine food or insulin need: she will need help to do this.

Diet: Children with diabetes can eat the same healthy foods as other children. Only concentrated sweets (candy, icing on cakes etc.) are generally off-limits (OK occasionally, in small amounts).

Frequent snacks: She requires a mid-morning &/or mid-afternoon snack. It is vital that these and regular meals occur on time so that insulin usage is properly balanced; otherwise hypoglycemia may occur.

Exercise: Diabetic children can participate in all kinds of active sports. However, since exercise burns up a lot of sugar, she should have an extra snack of sugary food before planned strenuous exercise to avoid low blood sugar. As a rule, exercise should not be scheduled just before any regular meal.

Self blood glucose monitoring: Several times a day, before meals, her blood sugar may need to be tested.

How You Can Help the Diabetic Child in Your Care:

* Treat the child normally: She will be able to function as a normal participant in group activities. While the fact that she has diabetes should not be hidden, she does not want to be singled out for special treatment. A quiet understanding should exist between you and her about the necessary precautions to be taken.

* Allow her to follow his or her "routine" inconspicuously: When the child needs extra snacks, or to test blood sugar, or to take insulin, help the child by allowing the necessary time and not calling attention to these "special" actions.

* Be alert to the changes that signal low blood sugar: Recognize that if behavior problems arise as a result of an insulin reaction, you should not blame her.

General Tips

- * Watch the child's behavior before meals and snacks.
- * Don't assign physical exercise just before a meal when the child may be in need of food.
- * Arrange an inconspicuous means of taking the mid-morning and/or afternoon snacks.
- * Keep sugar readily available
- * Encourage her to carry some form of sugar.
- * Make sure all necessary personnel are aware and informed.
- * Your child should take a snack before bed-time (important for school trips).

Guidelines for Caring for your child: Class _____

Address _____
Father's name, phone: Home _____ Office _____
Mother's name, phone: Home _____ Office _____
Alternate person to call in emergency _____
Physician's name, address, phone _____
Symptoms your child exhibits if her blood sugars are low (hypo):
Time of day hypo is most likely to occur:
Most effective treatment:
Type of insulin used:
Shots per day/ units per shot _____

When to do a blood sugar check:

When she says "I'm low," or has symptoms of low blood sugar, including: *Irritability
* Erratic responses to questions * Sleepiness, especially during/ after exercise.

What to do based on the blood sugar reading: (Remember to adapt to your child's specific needs)

Under 60: Give two sweets/ Glucose Tablets, followed immediately by 3-4 biscuits, kept in [specify place]. If she doesn't respond within 10 min, telephone parent (as above) for further instructions.

60-100: Give one sweet/ Glucose Tablet, followed immediately by 3-4 biscuits.

100-200: She is fine. If exercise is planned before a meal or snack, a snack is needed before participating. This includes recess.

200-240: A bit high, but this is not uncommon for her, especially in the early morning.

Over 300: Blood sugar is too high. She must be allowed to drink plenty of water, and use the bathroom as needed. Parents should be informed that urine must be tested for ketones. If ketones are present, she should not be in school.

When giving sugar, the following are approximately equivalent to 2 sweets ('boiled' candy) or Glucose tablets (10-15 gm sugar): * 1/2 glass (~ 125 ml) of fruit juice
* 1/2 bottle of soft drink * 1/2 to 1 cup of milk

Chocolate candy is not to be used unless there is no other source of sugar available. It is often not absorbed quickly enough, due to fats in the chocolate.

If the blood sugar remains low despite treatment, call the parents or doctor for advice.

Following an episode of low sugar, it can take several hours to fully recover. Hence, she should not be expected to perform at optimal levels. However, diabetes should never be allowed to become an excuse for poor school performance.

Finally, here are some additional suggestions offered by a Diabetes Nurse Specialist:

1. Make sure the child is COMFORTABLE performing blood glucose monitoring in the classroom/ school clinic.
2. Designate a specific area within the classroom/ clinic.
3. Make sure the child keeps all supplies out of reach of others and discards used items at home -- not at school.
4. Develop a care plan involving parents, child, school personnel, and diabetes team, signed by all.
5. Educate school personnel about truths and myths of blood glucose monitoring.
6. Ask for a trial period if school authorities are reluctant to allow testing in school.

I have found that with education and open discussions things happen. A plan needs to be developed that is in the best interest of the child, parents, diabetes team, and school.