



Diabetes Information For the School

A child in your class has type 1 diabetes. Type 1 diabetes is a condition where the pancreas stops producing insulin. Insulin is a hormone that helps your body control the level of glucose, or sugar, in your blood. Without insulin, glucose builds up in your blood instead of being used by your cells for energy. Children with type 1 need to test their blood sugars, take insulin and manage low blood sugars which can make them feel different. The following package is intended to help you understand what having a student with diabetes means and how you might help.

Children with diabetes should always wear **medical ID bracelet/necklace** that clearly identifies that they have diabetes. Children with diabetes require insulin 2 – 4 times per day through injections or a insulin pump. Some children will do injections at school but not all of them. All children should check their blood sugars a minimum of 4 times a day. Just like any other child, they should eat 3 meals and 1-3 snacks a day, however they it is important that they eat a specific amount at specific times, which vary from child to child based on their insulin regimen. They should always bring a lunch and snacks to school with them each day.

EMERGENCIES

There are several kinds of **EMERGENCY SITUATIONS** for a child with diabetes:

- 1) **Not Enough Food:** This could be something as simple as forgetting their lunch or snack, or spilling/dropping food. Each child should also have sufficient time to eat meals/snacks as well as any additional carbohydrates for activity.
- 2) **Low Blood Sugar/Insulin Reaction/Hypoglycemia:** Different names for the same thing. Low blood sugar can be a result of too much insulin, not enough food or increased/unplanned physical activity. A low blood sugar can occur within minutes. This is considered an **Emergency Situation and needs to be acted on quickly**. Each child should have and **“EMERGENCY KIT”** with instructions in a designated place within the school, usually the classroom, office, and gym. **See Treatment of Low Blood Sugar Sheet.**
- 3) **Unawareness to Low Blood Sugars:** Most children can recognize when they have a low blood sugar and can treat appropriately. Some younger children do not know when they are low and will need help learning their symptoms. Please be aware of what symptoms to look for. Please see handout: **Emergency Treatment of Low Blood Sugar**

FOOD

Children with diabetes should follow the same healthy eating regime that is recommended for all children, including treats. Diabetic foods/snacks are not recommended because they still affect blood sugars and often cause upset stomachs. Most children with type 1 diabetes use carbohydrate counting to help manage their blood sugars. This allows them to match their insulin to the food they are eating. Many parents will note the amount of carbohydrates on their food. It is important that children consume the carbs in their food and is imperative that the child have time to complete all snacks/meals or they are at higher risk of a low blood sugar.



BLOOD GLUCOSE MONITORING

Students with type 1 diabetes should have a blood glucose monitor in the classroom. All children with type 1 diabetes are taught and encouraged to test their blood sugar on their own. Some younger children may need assistance with blood sugar testing. It is the parent's responsibility to ensure that the student's blood glucose meter is in proper working order, with sufficient supplies available on a daily basis.

PHYSICAL ACTIVITY

All children with type 1 diabetes:

1. Need to plan for physical activity
2. Should not be stopped from enjoying any kind of physical activity
3. Should not be excluded from representing the school in sports teams

Preparation for activity will vary depending on when they last took insulin, type and duration of activity, when they last ate and their blood sugar.

They need to:

- test their blood sugar before activity, the target is greater than 8mmol/L
- they may need to have a snack before/during or after activity

HIGH BLOOD SUGARS

Not usually an emergency situation. Often results from illness, stress, less than usual amount of exercise, not enough insulin or too much food. Symptoms are sluggish, tired feeling, thirsty and frequent need to urinate. They cannot control this, **DO NOT** suggest extra physical activity. Allow extra fluids at student's discretion. **Contact parents** immediately if vomiting, abdominal pain or laboured breathing.

COMMUNICATING WITH PARENTS

It is important to communicate effectively with the parents to ensure a supportive, safe environment where the child can learn and thrive. **Every child's diabetes is different and may be managed differently.** The type of support and level of help varies from child to child. You may have experience with other students with type 1 however this may not be relevant for your current student. A daily communication system (for example, a notebook/agenda/email) should be available to communicate blood sugars (especially low blood sugars) or any changes in a child's routine. Parents should be aware of field trips and special events as early as possible, and should be permitted to attend. All school staff should know what to do in case of an emergency and at least 2 people should be trained in how to care for a child with type 1 diabetes. Planned staff absences should be co-ordinated so that there is always a trained person in the school.

Please refer to the www.diabetesatschool.ca website for additional information.



THE
CHARLES H. BEST
DIABETES CENTRE

EMERGENCY TREATMENT OF LOW BLOOD SUGAR (HYPOGLYCEMIA)

STUDENTS NAME: _____

Low Blood Sugar (Hypoglycemia) is a **medical emergency** requiring immediate attention. It occurs when the student's blood sugar is below a reading of 4 on their meter. If not treated quickly the student could lose consciousness and/or have a seizure requiring a 911 call. The family will provide the teacher/office with an emergency kit which contains the necessary supplies and instructions for use. This kit is to accompany the student on all trips off the school property. Older students are instructed to carry emergency sugar supplies with them at all times in addition to the Emergency kit being available. The student is at increased risk for a low blood sugar if snack/lunch is delayed or missed, extra/prolonged exercise, illness, insulin dose errors, ignoring blood test times.

Signs and symptoms of low blood sugar:

- Sudden onset of hunger
- Tremors /shakiness
- Sweating
- Fatigue/tiredness
- Irritable or mood changes or confusion
- Blurred vision

Call 911 if unable to give sugar treatment safely or student has:

- **Lost consciousness**
- **Seizure**
- **NOTE: Place the student on a safe flat surface on their side in the recovery position.**

Treatment of low blood sugar:

1. **Test the blood sugar.** If a blood sugar reading is not available and symptoms are evident begin treatment. You cannot harm the student by giving treatment of sugar.
2. **If blood sugar is under 4,** treat with 15 to 20 grams of **fast acting sugar** from Emergency kit

Blood sugar under 4	Blood sugar under 3
<u>15 grams fast acting sugar</u> <ul style="list-style-type: none">• 4 Dex 4 tablets or• ½ cup juice or• ½ can of regular pop	<u>20 grams fast acting sugar</u> <ul style="list-style-type: none">• 5 Dex 4 tablets or• 1 cup juice or• ¾ can regular pop

3. **Wait 15 minutes then re-test blood sugar** to ensure blood sugar is **over 4**. **Repeat treatment if not over 4** & retest in 15 minutes & treat again. Call 911 if blood sugar remains under 4 or drops further and /or student is unable to take further treatment.
4. **Once blood sugar is over 4 the student must have a snack** (slow acting sugar carbohydrate) from emergency kit to hold the blood sugar **if it is not time** for their next snack/meal.



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Guidelines for Illness, Sports and Travel

Illness i.e. vomiting

1. If vomiting occurs have student **check blood sugar immediately.**
 2. If blood sugar result **8** or less give 4 Dex 4 sugar tablets.
If blood sugar is under **4** use guidelines for low blood sugar using tablets, gels or paste rather than liquids to attempt to prevent further vomiting.

 1. Contact parent/caregiver to come and pick student up **within the hour.** If unavailable: Take child to the nearest emergency room
And/or
 2. Contact Best Centre staff **by Pager at 1-855-266-7243 enter I.D. 00360# then your phone number** if permission given by the parent
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Sports - Extra Activity or Exercise

1. Extra Activity burns up extra blood sugar, therefore before participating in or during sports events blood sugar checks should be done.
 2. If the activity is **before a meal** the sugar replacement should be given **before the activity** or if the blood sugar (if checked) is **8 or less** - see number 4.
 3. If the activity is **after a meal** the blood sugar will be higher at the start, therefore the replacement can be given after **unless** blood sugar is checked and results are **8 or less** - see number 4.
 4. **If the blood sugar is less than 8** for each **half hour (30 minutes)** of continuous physical activity, the student will require sugar replacement of approximately **10-15 grams** of carbohydrates (i.e. 2-3 plain cookies **or** a $\frac{1}{2}$ cup of fruit juice, Gatorade type drink).
 5. **If blood sugar is less than 4 follow instructions for low blood sugar.**
-

Students Taking Bus or Walking Home

Ideally the student should check blood sugar before getting on the bus or walking home **every day**

However, blood testing **must** be done when:

1. Student has had a low blood sugar during the school day.
2. There has been an unusually high activity day i.e. sports day etc.
Give Student a juice box from an Emergency Kit if their
Blood Sugar is **under 8** for 20 minute bus ride or walk.

Or

Blood sugar **under 10** for a 30 minute bus ride or walk.

Student should not board school bus or walk home if there is a concern about low blood sugar until parents have been contacted for further advice

How teachers can support students with type 1 diabetes

All students with type 1 diabetes—no matter how independent they are—need the support of trusted, caring adults at school. If you have a student with type 1 diabetes, whether for all or part of the day, there are many simple ways you can help. Here are some suggestions:

Learn about type 1 diabetes. Start by exploring the resources on diabetesatschool.ca, or have a look at some of the other resources we have gathered.

Provide parents with **as much notice as possible** about field trips, special events and changes to the school routine, especially where food or activity is involved.

Be familiar with the **signs and symptoms** of low blood sugar (hypoglycaemia) and high blood sugar (hyperglycemia), and know what to do in an emergency.

If a student experiences a low blood sugar before or during a test/exam, **allow a reasonable amount of time** to treat and recover from the low (they may need up to an additional 30 to 60 minutes to complete the task).

Be familiar with the student's **Individual Care Plan**. Know who at the school has been designated to provide day-to-day support.

Ensure that information about the student's daily tasks and emergency plan is available to **supply teachers**.

Ensure the student has **easy access to supplies** for blood glucose monitoring and treating low blood sugar (their "diabetes kit").

Support the student's self-care by allowing blood sugar monitoring at any time or anywhere, respecting the student's wish for privacy.

Ensure the student **eats meals and snacks on time**. Allow enough time to finish eating.

Know that a student **may need to eat outside a planned meal or snack time** to prevent low blood sugar.

Talk to the student's parents at the start of the school year (or right after diagnosis), and agree on a way to share information as needed.

Ensure that the student has **unrestricted bathroom access**, as well as access to water at all times. This is especially important when blood sugar is high.

10 things school staff should know about type 1 diabetes

1

Children will not outgrow type 1 diabetes:

With type 1 diabetes, the cells in the pancreas that produce insulin have been destroyed. People with type 1 diabetes will always have to take insulin injections (until there is a cure). Changes in lifestyle or diet will not “improve” type 1 diabetes.

2

Insulin is not a cure: But it is the only treatment. Without insulin, people with type 1 diabetes would die.

3

It takes a lot of work to manage diabetes:

Children with type 1 diabetes usually look healthy. That’s because they and their families are working hard to keep blood sugar levels in a target range. They do this by checking levels frequently, and acting quickly when needed—such as adding insulin to account for a special treat, or having a snack because of extra physical activity.

4

Technology is helpful, but it doesn’t work on its own:

Some students wear insulin pumps to deliver insulin. A pump is another way to deliver insulin, and whether or not to use a pump is an individual choice. Other students wear continuous glucose monitors (CGMs), which take blood sugar readings every few minutes. But none of these devices works on its own. People still have to carefully monitor blood sugar, food intake, and activity, and make decisions about how much insulin to give and when.

5

Blood sugar levels can change quickly:

It’s important to check blood sugar often, because there are many factors that can cause it to change from minute to minute.

6

Low blood sugar needs immediate attention:

If a student feels low, or you suspect a student is low, act right away. Do not leave the student alone. Check blood sugar, and give fast-acting sugar as needed.

7

High blood sugar means extra trips to the bathroom:

When blood sugar levels are high, the body tries to flush out the extra glucose through urine. Children with type 1 diabetes should always have unrestricted access to the washroom.

8

Kids with diabetes can still eat sweets

(and anything else): Unless they have food allergies or intolerances, students with diabetes can eat anything that others can—as long as they have enough insulin. By planning ahead, school staff can ensure kids with diabetes are included in activities involving special treats.

9

Even students who are independent may need help managing diabetes:

As students get older, they take on more of their diabetes management. But they still need help from time to time, especially if their blood sugar is low (hypoglycemia).

10

Kids with diabetes want to be like everyone else:

Like other kids, students with type 1 diabetes want to fit in. They don’t want to be singled out because of their disease. Working with students and families to ensure kids can manage their diabetes and still feel included is an important role for school staff.

What it is and what to do

When blood sugar is below 4 mmol/L, you must act **IMMEDIATELY**.
Do not leave a student alone if you think blood sugar is low.

Low blood sugar is also called **hypoglycemia**. It can be caused by:

- Too much insulin, and not enough food
- Delaying or missing a meal or a snack
- Not enough food before an activity
- Unplanned activity, without adjusting food or insulin

Some of the most common symptoms of low blood sugar are:



Shakiness



Irritability/grouchiness



Dizziness



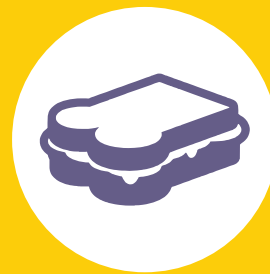
Sweating



Blurry vision



Headache



Hunger



Weakness/Fatigue



Pale skin



Confusion

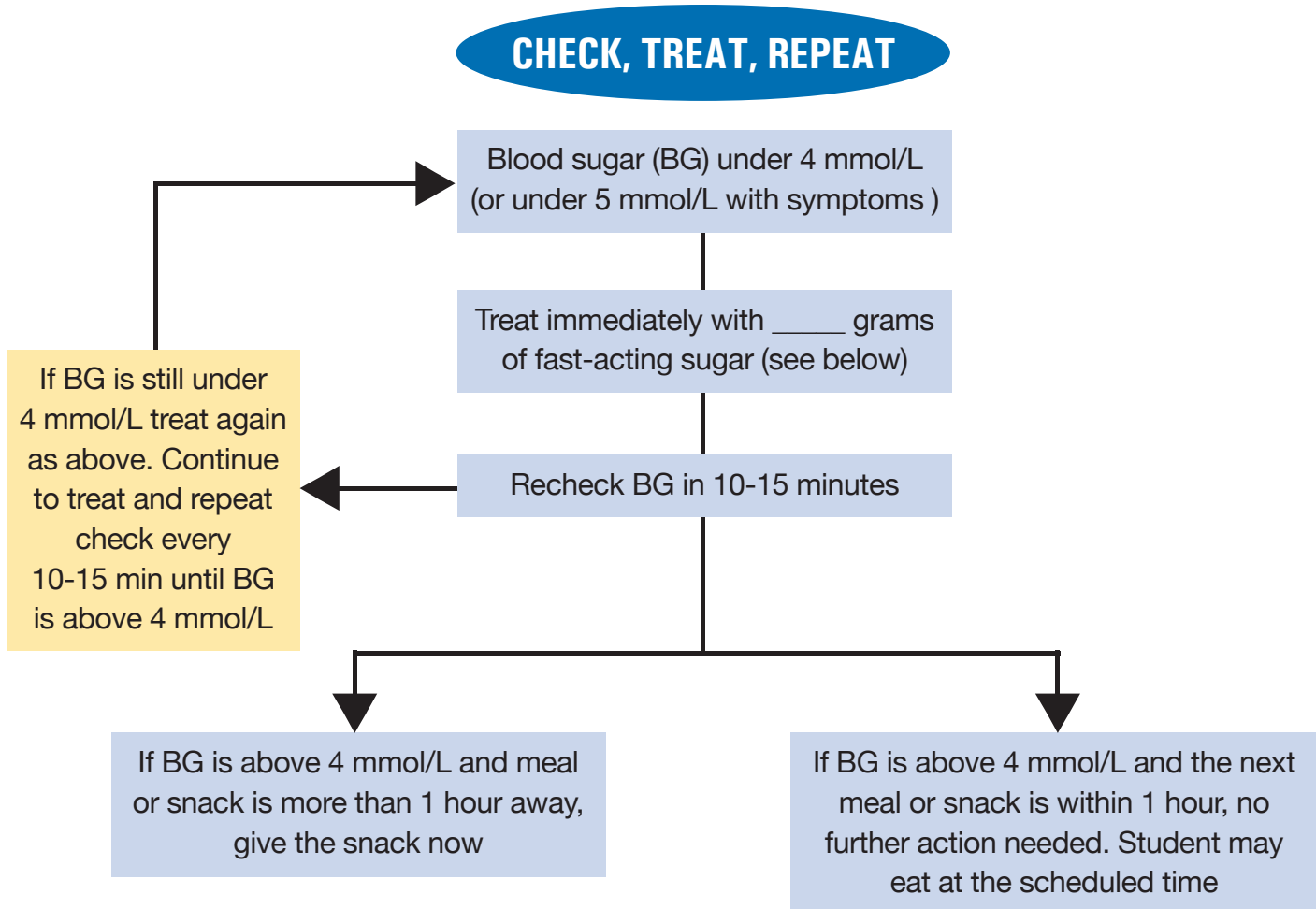
See other side for steps to take when you suspect a student has low blood sugar.

How to treat low blood sugar

Remember:

1. Low blood sugar must be treated **IMMEDIATELY**
2. **DO NOT** leave a student alone if you suspect low blood sugar
3. Treat the low blood sugar **WHERE IT OCCURS**. Do not bring the student to another location. Walking may make blood sugar go even lower.
4. Even students who are independent **may need help** when their blood sugar is low

CHECK, TREAT, REPEAT



Give fast-acting sugar according to the student's care plan: either 10 g or 15 g

Amount of fast-acting sugar to give		
	10 g	15 g
Glucose tablets	2 tablets	4 tablets
Juice/pop	½ cup	¾ cup
Skittles	10 pieces	15 pieces
Rockets candy	1 pkg = 7 g	2 pkgs = 14 g
Table sugar	2 tsp / 2 pkgs	1 Tbsp / 3 pkgs

What it is and what to do

High blood sugar (or hyperglycemia) occurs when a student's blood sugar is higher than the target range. It is usually caused by:

- extra food, without extra insulin
- not enough insulin
- decreased activity

Blood sugar also rises because of illness, stress, or excitement. Usually, it is caused by a combination of factors.

Students are not usually in immediate danger from high blood sugar unless they are vomiting, breathing heavily or lethargic. They may have difficulty concentrating in class.

What to do

Check blood sugar. Even students who are independent may need help if they are unwell.

Contact parents immediately if a student is unwell, has severe abdominal pain, nausea, vomiting or symptoms of severe high blood sugar.

If the student is well, follow instructions for high blood sugar in their care plan. Allow unlimited trips to the washroom, and encourage them to drink plenty of water.

Symptoms of high blood sugar



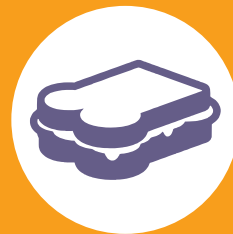
Extreme thirst



Frequent urination



Headache



Hunger



Abdominal pain



Blurry vision



Warm, flushed skin



Irritability

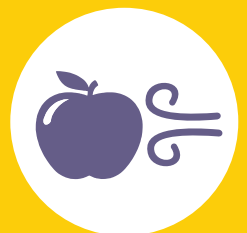
Symptoms of VERY high blood sugar



Rapid, shallow breathing



Vomiting



Fruity breath

DAILY SCHEDULE OF ROUTINE DIABETES-RELATED TASKS

TIME	Meal/snack	BG check	Insulin	Comments

LEGEND: A – assistance required; S - with supervision; I – independent. **BG=Blood glucose/sugar**

EMERGENCY KIT LOCATION(S): _____

MILD HYPOGLYCEMIA (Low blood sugar): Check, Treat, Repeat

If BG is under 4 mmol/L: Treat, then repeat BG check after 10-15 minutes
 Treat again if still under 4 mmol/L
 Treat and repeat this cycle until the BG is 4 or more

Usual symptoms of low blood sugar for student are

<input type="checkbox"/> shaky	<input type="checkbox"/> irritable/grouchy	<input type="checkbox"/> dizzy
<input type="checkbox"/> sweating	<input type="checkbox"/> blurred vision	<input type="checkbox"/> headache
<input type="checkbox"/> hungry	<input type="checkbox"/> weak/fatigue	<input type="checkbox"/> pale
<input type="checkbox"/> confused	<input type="checkbox"/> other _____	

Treat with:

- ____ glucose tablets
- ____ cup juice/regular pop
- ____ Skittles
- Other _____

HYPERGLYCEMIA (High blood sugar)

Call parent/guardian if BG is above ____ mmol/L, or if student is unwell.

For students on a pump, correction and/or ketones check if BG is above ____

- Call parent: _____
- See care plan

Specific instructions: _____

This worksheet is intended as a brief overview of DAILY diabetes-related tasks for the student. Consult the complete care plan for more details, particularly for non-standard situations. It is helpful to keep this sheet in the student’s class(es), even if the student manages most of their care.