Guidelines for Diabetes Management in Schools

Prince Edward Island Department of Education, Early Learning and Culture
AUGUST 2018
1. Guidelines for Diabetes Management in Schools
   1.1 What is Diabetes
   1.2 Management of Diabetes
      1.2.1 Insulin
      1.2.2 Insulin Pumps and Continuous Glucose Monitors (CGM)

2. Diabetes Management: A Shared Responsibility
   2.1 Responsibilities of Parents/Guardians of a Student with Diabetes
   2.2 Responsibilities of the Director
   2.3 Responsibilities of the Principal
   2.4 Responsibilities of Teachers

3. Emergency Treatment
   3.1 Low blood sugar
   3.2 How to treat low blood sugar
   3.3 High blood sugar

4. Terminology and Useful resources for teachers

5. Appendices
   5.1 10 things school staff should know about type 1 diabetes
   5.2 Individual Care Plan
ACKNOWLEDGEMENTS

This handbook serves as a guideline for schools which clarifies the roles and responsibilities of parents, educators and school administrators to ensure students with Type 1 diabetes are provided with a safe and positive learning environment.

Service requirements for students with diabetes may vary depending on their age and their needs. As such, this handbook provides additional information and recommendations for school personnel and parents. This document is based largely on the New Brunswick Department of Education and Early Childhood Development Handbook for Type 1 Diabetes Management in Schools as well as the Guidelines for Diabetes Management in Schools, Department of Education and Early Childhood Development in Newfoundland and Labrador. We are indebted to those two provinces for allowing us to use this valuable resource.

The Department of Education, Early Learning and Culture also wishes to acknowledge the Diabetes Program at Health PEI for their valuable input and Diabetes Canada for their input and resources. The Department also thanks the working group for their support.

The working group consists of the following individuals:

Imelda Arsenault, Director of External Relations and Educational Services, DEELC
Sterling Carruthers, School Health Coordinator, EELC
Carmel Donaldson, Provincial Pediatric Diabetes Nurse, Health PEI
Julia Gaudet/Terri MacAdam, Director of Student Services, Public Schools Branch
Lisa Marmen, Coordinator of Student Services, Commission scolaire de langue française
Martha St-Pierre, Provincial Diabetes Clinical Lead, Health PEI
Guidelines for Diabetes Management in Schools

Type 1 diabetes is a chronic life-threatening autoimmune disease that affects children of all ages. In Canada, one in 300 children has diabetes. Children younger than 5 years and early school-aged children are the fastest growing segment of the population with type 1 diabetes. In Prince Edward Island, there are approximately 15 children newly diagnosed with type 1 diabetes each year. In 2016, there were approximately 145 school aged children living with diabetes in the province. Based on these statistics, it is very likely that most schools in PEI will have at least one student with type 1 diabetes at any given time. Since children spend 30 to 35 hours per week at school, effectively managing their diabetes within the school environment is integral to their short and long-term health.

These guidelines clarify the roles and responsibilities of parents/guardians, educators, school administrators and other school-based personnel to ensure students with diabetes are provided a safe and caring learning environment. The information in these guidelines is for educational purposes only and is not a substitute for professional medical advice. The provision of health support services is the ongoing responsibility of the parent/guardian. In requesting the assistance of school personnel in the provision of these services, parents/guardians are temporarily delegating limited authority to the personnel of the public education system, for a particular purpose, rather than relinquishing any part of their parental responsibility.

School staff can be educated on the tools used to monitor diabetes, but cannot be expected to observe for trending of glucose values if doing so interferes with the overall classroom environment.

A terminology section is provided to assist you with the new terms used in the document.

What is Diabetes?

There are two main types of diabetes:

Type 1 diabetes occurs when the pancreas is unable to produce insulin. Insulin is essential for ensuring that the body’s energy needs are met. It most commonly has onset in childhood years, but it can also be diagnosed in early adulthood.

Type 2 diabetes occurs when the pancreas does not produce enough insulin or when the body does not effectively use the insulin that is produced. Type 2 diabetes is common in adults over the age of 40 years, however onset in childhood, while not common, is increasing due to childhood obesity and physical inactivity.

Symptoms of undiagnosed diabetes can include unusual thirst, frequent urination, unusual weight loss, extreme fatigue or lack of energy, tingling or numbness in the hands or feet, and blurred vision.

Management of Diabetes

Insulin

All students with type 1 diabetes need insulin to manage their diabetes. Insulin can be administered by injection or infused through a pump. Students with type 2 diabetes more commonly use oral medications to manage the disease, although some will require insulin.

Insulin pumps and Continuous Glucose Monitors (CGM)

Many families of students with type 1 diabetes choose to use a pump to administer insulin. The pump can allow for greater flexibility and improved quality of life as it eliminates the need for multiple daily insulin injections. The
pump delivers a continuous infusion of insulin throughout the day plus when prompted, a bolus (or ‘burst’) of insulin when the student eats. In order for the pump to work properly, the student must wear it day and night, although it can be removed, if indicated in the student’s Individual Care Plan for short periods (e.g. during a physical education class).

Students may also wear continuous glucose monitors (CGMs) which take glucose readings every few minutes, with or without insulin pumps.

Technology such as insulin pumps and CGM are helpful, but they do not work on their own. There is still the need to monitor blood sugar, food intake and activity and make decisions about how much insulin to give and when. When a school aged child is unable to effectively monitor and comprehend their CGM, effort must be made to implement a monitoring plan that does not interfere with the classroom learning environment. School staff can be educated on the CGM transmitter itself, but cannot be expected to observe for trending of glucose values if doing so interferes with the overall classroom environment.

### Diabetes Management: A Shared Responsibility

Diabetes management in schools shall be based on strong collaboration between parents/guardians, students, school personnel and health care professionals.

The creation of an Individual Care Plan is at the parents'/student’s discretion. Depending on the age, maturity and skill of the older student and their ability to self-manage their diabetes, parents/students may choose not to develop an Individual Care Plan for their older student (e.g. high school). In addition, students may not want to disclose their health information with the school and its staff members, which is within their individual right, not to disclose.

### Responsibilities of Parents/Guardians of a Student with Diabetes

In order for students with diabetes to benefit from a safe and caring learning environment, their parents/guardians are expected to:

a) Be familiar with the Guidelines for Diabetes Management in Schools and fulfill their obligations.

b) Follow appropriate diabetes management practices:

- engage with the school and the Diabetes Care Team to develop the child’s Individual Care Plan;
- ensure the child’s diabetes is monitored and addressed and ensure that he/she follows the medically prescribed care;
- ensure that their child’s blood glucose meter is in proper working order, with sufficient supplies available on a daily basis;
- program and maintain the insulin pump, changing its parameters and the batteries;
- encourage their child to inform school personnel when he/she experiences symptoms of hypoglycemia or hyperglycemia; (see terminology section)
- ensure safe transportation of medication and disposal of items requiring special precautions, such as syringes and sharps;
- inform the school in writing of any changes in the student’s Individual Care Plan, or any relevant information; and
- foster their child’s independence in the monitoring and treatment of his/her diabetes in keeping with the child’s age, knowledge, skills, and maturity level.
c) Make a plan

- Parents/guardians are responsible for meeting with the principal or designate, prior to the beginning of each school year, to develop/update the Individual Care Plan on the services required and the school’s and student’s (if applicable) respective roles. This information will be recorded and signed by the parent/guardian, the principal or designate and the student (if applicable).
- To facilitate the establishment of a service agreement for a student with diabetes, it is recommended that parents/guardians and designated staff use the Individual Care Plan (Appendix A).
- Ensure modifications are in place for special events/outings.

d) Attend training

- Parents/guardians are responsible for working with the school to meet the school’s training needs.
- Parents/guardians are encouraged to attend training provided for designated school personnel.
- When appropriate, parents/guardians are also encouraged to participate in the delivery of training.

e) Provide supplies

- Parents/guardians must provide all necessary supplies, equipment and appropriately labeled medication (including glucagon, if included in the student’s Individual Care Plan), and ensure these are available to the school at all times and replaced prior to their expiration.
- Parents/guardians must ensure that their child always has access to their diabetes management kit containing all the elements required for his/her diabetes care (including on the school bus). If a student with diabetes arrives at school without his/her kit, it is the parent’s/guardian’s responsibility to ensure the kit is provided to the school as quickly as possible.
- For students who require assistance counting carbohydrates, parents/guardians are responsible for providing the separate carbohydrate counts for all foods to be consumed at recess and lunch.

f) Provide medical ID

- Parents/guardians shall ensure their child wears a MedicAlert® bracelet or other suitable identification at school and school related field trips.
- For more information about the Medic Alert bracelet visit: http://www.medicalert.ca.

Responsibilities of the Director

The Director will:

a) Ensure school personnel are familiar with and adhere to the Guidelines for Diabetes Management in schools; and
b) Make available the appropriate training for school personnel.

Responsibilities of the Principal

The Principal (or designate) will:

a) Provide Guidelines for Diabetes Management in Schools and appropriate forms to parents/guardians as soon as possible.
b) Ensure school personnel are familiar with and adhere to the Guidelines for Diabetes Management in schools.

- Parents/guardians must be provided the opportunity to meet with designated staff to develop/update the Individual Care Plan (Appendix A) as required for the student. This should occur at the **beginning of the school year**, or as soon as possible, and be updated/revised if changes are required. A copy of each student’s Individual Care Plan is posted in the main office. The school administration will provide a copy of the Individual Care Plan to the appropriate staff.
- The plan must include an agreement on the procedures to be followed for the daily management of diabetes and in case of an emergency.
- It must describe the parent’s/guardian’s, school and student’s (when appropriate) respective roles.
- Each year, and when there is a significant change in the Individual Care Plan, the plan must be reviewed by the school principal or designate and the parent/guardian.
- If the service requirements remain the same, only the signatures from the principal or designate and a parent/guardian are required to renew the plan.
- If the service requirements are different from the last plan, a new plan must be developed.
- With permission from the parent/student, display the identifying information in the staff room or office.

\[ \text{c) Ensure measures are put in place} \]

- The principal (or designate) will ensure measures as described in the Individual Care Plan, are put in place. The principal (or designate) will ensure there are 2 staff members trained and available to provide assistance for the care specified in the plan.
- Where appropriate, the school principal (or designate) will establish a response team. The size of the team may vary depending on the size and the structure of the school, the number of students with diabetes and the age group.
- Ensure student’s diabetes kit / fast-acting sugar supplies are accessible to the student at all times – e.g. class, gym, field trips, lockdowns, fire drills, etc.
- Where a glucagon kit is provided by the parent, the principal must identify a safe, consistent location to store the glucagon kit within the school. This location must be communicated to response teams, parents and teachers.
- Ensure a sharps container is available for the students for safe disposal of sharps.

\[ \text{d) Arrange for training} \]

- When a student with diabetes attends the school, an information session must be provided to all appropriate school personnel at the beginning of each school year or when a student is diagnosed during the school year (or as soon as possible.)
- Additional training will be required for school personnel with more direct contact with the student with diabetes.
- Parents/guardians shall be asked to attend training.
- When appropriate, parents/guardians shall be asked to participate in training delivery.
- When appropriate, the student shall be asked to attend and/or participate in training.

All school personnel, including substitutes, will receive basic information available to staff to:

- identify students with diabetes by their MedicAlert bracelet or other medical identification;
- recognize diabetes supplies;
- recognize the signs of hypoglycemia and hyperglycemia;
- know where to find fast-acting sugar (emergency supplies of fast-acting sugar should be stored in multiple locations throughout the school, such as classroom, office, gym, etc.); and
become familiar with the established emergency procedure.

Other school personnel with more direct contact with the student with diabetes shall receive additional training to ensure that, in addition to the above, they can:

- verify the amount of food consumed by the student and count carbohydrates (as per the parent/guardian count) for students who require assistance;
- supervise the student as he/she calculates and prepares the correct amount of insulin for carbohydrates consumed;
- supervise the student during blood sugar checking;
- supervise the student’s self-administration of insulin;
- younger children will need school personnel to provide all aspects of glucose monitoring and insulin administration
- measure blood sugar with the glucose meter;
- replace glucose meter batteries;
- put in place other procedures that may be required;
- know where to find glucagon kit, if required; and
- carry out the emergency plan including the administration of glucagon, according to the student’s Individual Care Plan

e) Medication and materials management

- Medication services will be managed according to the established procedures and the agreed student Individual Care Plan (Appendix A).
- Adequate precautions must be taken to store and handle medications, such as insulin and glucagon, with respect for the particular storage requirements of the medication.
- An appropriate location must be available to perform blood sugar checks and insulin injections, and if the student requests and space allows, a private location will be provided. Otherwise allow student to carry out diabetes management tasks (e.g. blood sugar monitoring) conveniently and safely, wherever and whenever needed (e.g. classroom, gym, school bus)

Depending on the age, knowledge, skills, and maturity of the student:

- A member of the school personnel should be designated to verify, during the first period of the day, that the student has his/her diabetes kit at school. If the student does not have his/her kit, the parent/guardian will be contacted to ensure the kit is provided to the school as quickly as possible.
- Students depending on their age, maturity and Individual Care Plan should not be left unattended when checking their blood sugar levels or administering insulin.
- The principal (or designate) should make arrangements for parents/guardians to count carbohydrates or, if available, obtain a carbohydrate count for foods served in the cafeteria.

f) Considerations for special events and activities

After consultation with parents/guardians, modifications must be in place for special events and activities at the school and other extra-curricular events in order to prevent and be prepared for any medical emergencies that may occur.

- Parents/guardians of students with diabetes should be given advance notice, to the extent possible, of changes to the regular schedule (e.g. field trips, extra physical activities, food-related activities) so that the parent/guardian can provide the school with appropriate modifications to the student’s Individual Care Plan. Teachers should be notified of any modification to the plan for special events/activities.
- Depending on the age, knowledge, skills, and maturity of the student, an adult should be designated to ensure the student’s care is managed according to his/her Individual Care Plan and ensure the student has his/her diabetes care kit and glucagon kit, if required.
- A copy of the Individual Care Plan (Appendix A) should be available on all excursions off school grounds.

g) Establish a plan for other school personnel
- Measures must be in place to ensure student safety when the student is under the supervision of a casual employee including a substitute teacher who has not received the appropriate diabetes training. Casual employees must be provided with written instructions concerning the care of each student (when appropriate). If required, the principal (or designate) must specify to the casual employee, a member of the school personnel who can intervene rapidly in the case of an emergency.

Responsibilities of Teachers

Teachers are expected to:
- ensure they are familiar with and adhere to the Guidelines for Diabetes Management in Schools
- know the identity of students with diabetes in their classroom/school;
- allow students to eat their snacks and meals according to their Individual Care Plan, on time and in full
- allow students to carry out the necessary diabetes care as specified in the Individual Care Plan (Appendix A);
- be able to recognize the signs of hypoglycemia and hyperglycemia and provide assistance and treatment as per guidelines;
- be aware of the location of the diabetes kit for the student in their classroom, and of the location of additional supplies of fast-acting sugar stored in other areas of the school (e.g. office, gym, etc)
- be able to recognize a student’s equipment, which is necessary to carry out diabetes care, such as a blood glucose meter, insulin pump, etc.;
- communicate in advance to the parent/guardian any anticipated changes in daily schedule e.g. special events/activities to allow for appropriate adjustment to child’s care plan for that day.
- be aware of changes of the plan for special events/activities.
- provide information to substitute teachers

Emergency Treatment

There are two types of diabetes-related emergencies which school personnel may encounter:
- Low blood sugar level (hypoglycemia)
- High blood sugar level (hyperglycemia)

When dealing with cases of hypo/hyperglycemia, the student’s Individual Care Plan should be followed.

Signs/symptoms that are unique to each child with diabetes should be recorded in their Individual Care Plan

The following reference tool for hypo/hyperglycemia was designed to provide all school personnel with signs and procedures in case of such an emergency. School personnel and others (e.g. bus drivers) entrusted with the supervision of students with diabetes are expected to be able to recognize the signs of mild to moderate hypoglycemia and hyperglycemia and provide assistance in case of an emergency.
Low blood sugar

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.
Guidelines for Diabetes Management in Schools

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

Blood sugar (BG) under 4 mmol/L (or under 5 mmol/L with symptoms)

Treat immediately with ___ grams of fast-acting sugar (see below)

If BG is still under 4 mmol/L treat again as above. Continue to treat and repeat check every 10-15 min until BG is above 4 mmol/L

Recheck BG in 10-15 minutes

Severe low blood sugar
If student is:
• unresponsive
• having a seizure
• OR cannot swallow fast acting sugar by mouth

CALL 911 immediately and then call the parents.
Refer to student’s Individual Care Plan (page 3)

If BG is above 4 mmol/L and the next meal or snack is within 1 hour, no further action needed. Student may eat at the scheduled time

If BG is above 4 mmol/L and meal or snack is more than 1 hour away, give the snack now

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

<table>
<thead>
<tr>
<th>Amount of fast-acting sugar to give</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>10 g</td>
</tr>
<tr>
<td>Glucose tablets</td>
</tr>
<tr>
<td>Juice/pop</td>
</tr>
<tr>
<td>Skittles</td>
</tr>
<tr>
<td>Rockets candy</td>
</tr>
<tr>
<td>Table sugar</td>
</tr>
</tbody>
</table>

www.diabetesatschool.ca
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. If 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.

If you see these symptoms in a child without type 1 diabetes, please speak to their parents and suggest they see a doctor.
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 (hypoglycaemia).

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.

---

For more information: www.diabetesatschool.ca
Terminology

**Blood glucose:** The amount of glucose (sugar) in the blood at a given time; more commonly referred to as blood sugar

**Blood sugar monitoring or self-monitoring of blood sugar:** People with diabetes must monitor their blood sugar regularly as part of the process for achieving their target blood sugar level. Levels will change depending on food consumption, physical activity, stress, illness, problems with the insulin delivery system and many other unknown factors. To test blood sugar, the individual pricks his or her finger with a lancing device and places a drop of blood on a blood glucose test strip, which is inserted into a blood glucose meter to obtain a reading.

**Carbohydrate:** One of the main sources of energy (calories). All forms of carbohydrate are broken down into glucose during digestion and increase blood glucose. Carbohydrates are found in fruits, vegetables, milk and grains/starches such as rice, potatoes, corn and legumes, and refined sugars.

**Carbohydrate (carb) counting:** A popular meal planning approach for children and adolescents with diabetes that involves calculating the number of grams of carbohydrate, or choices of carbohydrate, eaten at meals or snacks. Carb counting helps students follow their meal plan and/or to determine the amount of insulin needed at each meal/snack.

**Diabetes Care Team:** refers to an interdisciplinary team comprised of a physician specialist (pediatrician or internal medicine specialist), and a nurse and dietitian from Health PEI's Provincial Diabetes Program.

**Fast-acting carbohydrate (or fast-acting sugar):** A rapidly absorbed carbohydrate to eat or drink for the treatment of mild to moderate hypoglycemia (e.g. juice, glucose tablets). Give fast-acting sugar according to the student’s Diabetes Management and Emergency Plan

**Glucagon:** A hormone that raises blood sugar. An injectable form of glucagon is used to treat severe hypoglycemia.

**Glucose:** The fuel that the body needs to produce energy. Glucose (sugar) comes from carbohydrates such as breads, cereal, fruit and milk.

**Hyperglycemia or high blood sugar:** A situation that occurs when the amount of blood glucose (sugar) is higher than an individual’s target range.

**Hypoglycemia or low blood glucose:** Occurs when the amount of blood glucose (sugar) is lower than 4 mmol/L. Hypoglycemia can be mild, moderate or severe. If mild hypoglycemia is not treated promptly, it can become severe.

**Individual Care Plan:** is a written document, outlining the plan of care while the student is at school. It provides the student’s demographic and parental contact information, defines the content of the students’ emergency kit, provides direction on: when and how often to check blood sugar; treating low blood sugar (hypoglycemia); treating high blood sugar (hyperglycemia); administering insulin (if needed at school); and mealtime and physical activity. The creation of an Individual Care Plan is at the parents’/student’s discretion.

**Severe low blood sugar:** Typically occurs when the amount of blood glucose (sugar) is lower than 2.8 mmol/L. Severe low blood sugar is an emergency situation and requires the assistance of another person as unconsciousness may occur. Guardians should call emergency services immediately. Symptoms of severe hypoglycemia include fainting, a seizure and difficulty speaking.
**Insulin:** A hormone that facilitates the conversion of glucose to energy. Since people with type 1 diabetes cannot produce their own insulin, glucose builds up in the blood instead of being used for energy. They must therefore administer insulin by syringe, insulin pen or insulin pump.

**Insulin pump:** A computerized device that is programmed to deliver small, steady doses of insulin throughout the day. Additional doses are given when needed to cover food intake and to lower high blood sugar levels. The insulin is delivered through a system of plastic tubing (infusion set).

**Sharps:** Used syringes, insulin pen needles, and lancets. These items must be carefully disposed of in appropriate containers.

**Target blood sugar range:** Acceptable blood sugar levels based on current Diabetes Canada’s Clinical Practice Guidelines and personalized for the student by their diabetes care team and their parent or guardian.

**Type 1 diabetes:** An autoimmune disease that occurs when the pancreas no longer produces any insulin or produces very little insulin. Type 1 diabetes usually develops in childhood or adolescence and affects approximately 10% of people with diabetes. There is no cure. It is usually treated with lifelong insulin injections, frequent monitoring of blood sugar levels and careful attention to food intake and physical activity.

**Type 2 diabetes:** A disease that occurs when the pancreas does not produce enough insulin to meet the body’s needs and/or the body is unable to respond properly to the actions of insulin (insulin resistance). Type 2 diabetes usually occurs later in life (although it can occur in children) and affects approximately 90% of people with diabetes. It is treated with careful attention to diet and exercise and usually requires medication (oral antihyperglycemic agents) and/or insulin.

---

**Useful resources for teachers**

- Diabetes at School – developed by the Canadian Paediatric Society in partnership with Diabetes Canada and the Canadian Pediatric Endocrine Group
  
  www.diabetesatschool.ca

- BC Children’s Hospital. Online module for educators, “Taking Care of Diabetes at School”:
  
  http://learn.phsa.ca/BCCH/insulin/schools/

- Diabetes Canada. Guidelines for the Care of Students Living with Diabetes at School(September 2014):
  
  www.diabetes.ca/kidsatschool. Printed copies are available from Health PEI’s Provincial Diabetes Program’s Pediatric Diabetes Nurse

- International Diabetes Federation Kids At School. The KiDS information pack is divided in two sections: the first section is focused on type 1 diabetes and the needs of children school offering both guidelines for the management of children with diabetes and a sample diabetes management plan; the second section is focused on guidelines for a healthy lifestyle to prevent type 2 diabetes. Available at:  
  
  https://www.idf.org/e-library/education/73-kids-diabetes-information-pack.html. Printed copies are available from Health PEI’s Provincial Diabetes Program’s Pediatric Diabetes Nurse
Individual Care Plan for Students with Type 1 Diabetes

**DAILY AND EMERGENCY PROCEDURES**

**IDENTIFICATION**

Name: ___________________________ Date of birth: ___________ School year: 20___ to 20___

School: ___________________________ Grade: _______ Homeroom teacher: ___________________________

Home address: ____________________________________________________________

Medical contact: ___________________________ Phone: ___________________________

If student has another care plan, note here: ______________________________________

Designated staff to provide support with diabetes care (minimum 2):

1. ___________________________

2. ___________________________

3. ___________________________

Before-school care: No ☐ Yes ☐ _______________ After-school care: No ☐ Yes ☐ _______________

School bus #: a.m. ___________ p.m. ___________

**CONTACTS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Relationship</th>
<th>Preferred phone #</th>
<th>Alternate phone #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EMERGENCY KITS / SUPPLIES**

*SCHOOL must ensure a kit is accessible at all times (class, gym, field trips, lockdowns, fire drills, etc). Advise parents when running low on supplies. PARENT must maintain/refresh supplies.*

<table>
<thead>
<tr>
<th>CONTENTS (check all that apply)</th>
<th>With student</th>
<th>Classroom</th>
<th>Office</th>
<th>Other location(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood glucose meter, test strips, lancets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fast-acting sugar (juice, glucose tabs, candy) for low blood sugar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbohydrate snack(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glucagon (expiry date: <strong>/</strong>/__)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharps disposal container</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ketone strips/meter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulin pen, pen needles, insulin (in case of pump failure)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra batteries for meter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents’ names and contact numbers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

www.diabetesatschool.ca
### Diabetes Student Care Plan – Daily Activities

**Diabetes Care Plan**

| Student's Name: __________________________ | Date: __________________________ |

**School Year 20____ to 20____**

#### Routine Diabetes Activities

<table>
<thead>
<tr>
<th>Routine Diabetes Activities</th>
<th>Care Plan and Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Sugar Testing</td>
<td></td>
</tr>
<tr>
<td>- My child can independently check blood sugar/read meter</td>
<td>If blood sugar is ______ mmol/L:</td>
</tr>
<tr>
<td>- My child needs supervision to check blood sugar/read meter</td>
<td>Time:</td>
</tr>
<tr>
<td>- My child needs assistance to check blood sugar/read meter</td>
<td>Before eating lunch Time:</td>
</tr>
<tr>
<td></td>
<td>If blood sugar is ______ mmol/L:</td>
</tr>
<tr>
<td></td>
<td>Time:</td>
</tr>
<tr>
<td></td>
<td>Before leaving school/going on bus</td>
</tr>
<tr>
<td></td>
<td>If blood sugar is ______ mmol/L:</td>
</tr>
<tr>
<td></td>
<td>Healthy blood sugar range:__________ Call parent if blood sugar is:</td>
</tr>
<tr>
<td>Snack and Meal Times</td>
<td></td>
</tr>
<tr>
<td>- My child is independent with meals and snacks</td>
<td>Student must be able to eat on time</td>
</tr>
<tr>
<td>- My child requires supervision with meals and snacks</td>
<td>Student must be able to eat all of the required food prepared by parent at each break</td>
</tr>
<tr>
<td></td>
<td>Supervision may be required</td>
</tr>
<tr>
<td>Insulin</td>
<td></td>
</tr>
<tr>
<td>- My child takes insulin at school:</td>
<td>Insulin by injection/insulin pump to be administered at the following times:</td>
</tr>
<tr>
<td>- by insulin pen injection</td>
<td>Before morning break</td>
</tr>
<tr>
<td>- by insulin pump</td>
<td>Before lunch</td>
</tr>
<tr>
<td></td>
<td>- __________________________</td>
</tr>
<tr>
<td>Exercise Plan</td>
<td></td>
</tr>
<tr>
<td>(Risk of low blood sugar increases during/after physical activity. The student may need extra blood sugar check(s) and/or extra food)</td>
<td>No action needed before activity</td>
</tr>
<tr>
<td></td>
<td>- Check blood sugar before regular physical activity classes</td>
</tr>
<tr>
<td></td>
<td>- Check blood sugar before unplanned activity</td>
</tr>
<tr>
<td>Illness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Call parent if student vomits. If parent not reached within 30 minutes, call 911 to transfer to nearest hospital. Inform EMS student has Type 1 diabetes</td>
</tr>
<tr>
<td>Parties &amp; Special Meals</td>
<td></td>
</tr>
<tr>
<td>Do you wish to be contacted before each event?</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>Additional instructions:</td>
<td></td>
</tr>
<tr>
<td>Emergency Kit Location</td>
<td></td>
</tr>
</tbody>
</table>
Appendix A: Individual Care Plan page 3 of 5

EMERGENCY PROCEDURE FOR LOW BLOOD SUGAR (HYPOGLYCEMIA)

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>MILD-TO-MODERATE LOW BLOOD SUGAR</th>
<th>SEVERE LOW BLOOD SUGAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>When blood sugar (BG) is low, the student may have these symptoms:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Shakiness</td>
<td></td>
<td>Symptoms</td>
</tr>
<tr>
<td>□ Irritable/grouchy</td>
<td>□ Unresponsive or unconscious</td>
<td></td>
</tr>
<tr>
<td>□ Sweating</td>
<td>□ Having a seizure</td>
<td></td>
</tr>
<tr>
<td>□ Blurred vision</td>
<td>□ So uncooperative that you can’t</td>
<td></td>
</tr>
<tr>
<td>□ Headache</td>
<td>give juice or sugar by mouth</td>
<td></td>
</tr>
<tr>
<td>□ Hunger</td>
<td>□ Weakness/fatigue</td>
<td></td>
</tr>
<tr>
<td>□ Confusion</td>
<td>□ Paleness</td>
<td></td>
</tr>
<tr>
<td>□ Other(s)</td>
<td></td>
<td>What to do</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Place the student in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>recovery position.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Have someone call 911. Then call</td>
</tr>
<tr>
<td></td>
<td></td>
<td>parents.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Stay with the student until</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ambulance arrives. Do not give</td>
</tr>
<tr>
<td></td>
<td></td>
<td>food or drink (choking hazard).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. If there is a signed consent and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>mutual agreement (next page) to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>give glucagon, give it now.</td>
</tr>
<tr>
<td>The student may also use these words to describe feeling low:</td>
<td></td>
<td>□ Yes, give glucagon</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ No, do not give glucagon</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HOW TO USE GLUCAGON</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dose</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Students 5 years old and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>younger: 0.5 mg = 0.5 mL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Students 6 years and older:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.0 mg = 1.0 mL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Directions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. Remove cap</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Inject liquid from syringe into</td>
</tr>
<tr>
<td></td>
<td></td>
<td>dry powder bottle</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Roll bottle gently to dissolve</td>
</tr>
<tr>
<td></td>
<td></td>
<td>powder</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Draw fluid dose back into the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>syringe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Inject into outer mid-thigh</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(may go through clothing)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. Once student is alert, give</td>
</tr>
<tr>
<td></td>
<td></td>
<td>juice or fast-acting sugar</td>
</tr>
</tbody>
</table>

First, check blood sugar (BG). Even students who do their own checks may need help when their blood sugar is low. Then follow these steps:

**Check**

- If BG is under 4 mmol/L OR
- If BG is under 5 mmol/L with symptoms

**Treat**

- Immediately give ___ grams of fast-acting sugar (See below for student preferences and amounts)

**Repeat**

- After 15 minutes, check BG again:
- If still under 4 mmol/L, treat again as above.
- Repeat cycle every 10 to 15 minutes until BG is above 4 mmol/L

When BG is over 4 mmol/L:

- If meal or snack is more than 1 hour away, give snack now
- If meals or snack less than 1 hour away, no action needed. Student can eat at regular time

<table>
<thead>
<tr>
<th>How much fast-acting sugar to give</th>
<th>10 g</th>
<th>15 g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose tablets (4 g each)</td>
<td>2 tabs (8 g)</td>
<td>4 tabs (16 g)</td>
</tr>
<tr>
<td>Juice or regular soft drink</td>
<td>½ cup</td>
<td>½ cup</td>
</tr>
<tr>
<td>Skittles</td>
<td>10 pieces</td>
<td>15 pieces</td>
</tr>
<tr>
<td>Rockets (roll candy)</td>
<td>1 roll (7 g)</td>
<td>2 rolls (14 g)</td>
</tr>
<tr>
<td>Table sugar</td>
<td>2 tsp / 2 pkgs</td>
<td>1 Tbsp / 3 pkgs</td>
</tr>
</tbody>
</table>

When BG is under ________ mmol/L, call parent
### Appendix A: Individual Care Plan page 4 of 5

#### Consent

**Pre-authorizations by parents/guardians**

- **Consent to release information:** I authorize and provide consent to the school staff to use and/or share information in this plan for purposes related to the education, health and safety of my child. This may include:
  1. Displaying my child's photograph on paper notices or electronic format(s) so that staff, volunteers and school visitors will be aware of my child's medical condition.
  2. Communicating with bus operators.
  3. Sharing information in special circumstances to protect the health and safety of the student.

  Yes [ ]  No [ ]

- **Consent to transfer to hospital:** I consent in advance to my child’s being transported to a hospital if required, based on the judgment of school staff. I also permit a staff member to accompany my child during transport. Please note: the school principal or designate shall decide if an ambulance is to be called.

  Yes [ ]  No [ ]

- **Consent to treatment:** I am aware that school staff are not medical professionals and perform all aspects of the plan to the best of their abilities and in good faith. I approve of the management steps and responses outlined in this care plan, including administering glucagon if indicated.

  Yes [ ]  No [ ]

- **Agreement to provide glucagon:** School staff, parents and my child (if age-appropriate) agree that glucagon can be given in the event of severe hypoglycemia. Note: School personnel must sign below to indicate pre-agreement to provide this emergency injection.

  Yes, glucagon can be given [ ]  No, glucagon cannot be given [ ]

#### Authorization

- **Parent/guardian signature:** ___________________________  Date: ________________
- **Parent/guardian name (print):** ___________________________  Relationship: ________________
- **Student signature:** ___________________________  Date: ________________
- **Health care professional (HCP) signature:** ___________________________  Date: ________________
- **HCP name (print):** ___________________________  Role: ________________
- **Principal signature:** ___________________________  Date: ________________
- **Principal name:** ___________________________

- **Designated and trained staff (minimum 2):**
  1. ___________________________
  2. ___________________________
  3. ___________________________

- **Staff trained and designated to administer glucagon:** ___________________________
### Appendix A: Individual Care Plan page 5 of 5

**Diabetes Care Plan**

<table>
<thead>
<tr>
<th>STUDENT NAME</th>
<th>Date</th>
</tr>
</thead>
</table>

#### ANNUAL RENEWAL

When requirements change significantly, complete a new Individual Care Plan and share with all involved.

If there are no changes between school years, use this sign-off sheet to confirm the plan has been reviewed by the school, the parent(s) and, when age-appropriate, the student.

This plan remains in effect for the _____ to _____ school year without change.

<table>
<thead>
<tr>
<th>Parent/guardian</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>Date</td>
</tr>
</tbody>
</table>

This plan remains in effect for the _____ to _____ school year without change.

<table>
<thead>
<tr>
<th>Parent/guardian</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>Date</td>
</tr>
</tbody>
</table>

This plan remains in effect for the _____ to _____ school year without change.

<table>
<thead>
<tr>
<th>Parent/guardian</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>Date</td>
</tr>
</tbody>
</table>

This plan remains in effect for the _____ to _____ school year without change.

<table>
<thead>
<tr>
<th>Parent/guardian</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>Date</td>
</tr>
</tbody>
</table>

This plan remains in effect for the _____ to _____ school year without change.

<table>
<thead>
<tr>
<th>Parent/guardian</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>Date</td>
</tr>
</tbody>
</table>

This plan remains in effect for the _____ to _____ school year without change.

<table>
<thead>
<tr>
<th>Parent/guardian</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal</td>
<td>Date</td>
</tr>
</tbody>
</table>

www.diabetesatschool.ca