

Kids With Diabetes in Your Care

Helping you help kids deal with their diabetes.

This resource kit will provide basic information to people who have children with diabetes in their care. Its purpose is to help ensure the safety and success of kids with diabetes. The content of the *Kids with Diabetes in Your Care* resource kit has been developed with schools in mind, and is a valuable resource for:

- teachers
- school personnel
- parents and families of kids with diabetes
- childcare workers
- coaches, youth leaders
- other people who might care for kids with diabetes

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How to Use This Resource Kit

Managing diabetes is a full-time job for the family and youth with diabetes. People who have kids in their care with diabetes are in a very special position. Their understanding of the unique needs of the youth with diabetes is important. The information in this resource kit supports ongoing communication between the youth, parents and the school.

"Our courts have held that a school has a special responsibility towards its students which, we believe, imparts an additional obligation to engage in a positive conduct for students' benefit in an emergency situation."

*Diabetes and the Duty of Care of School Employees,
Borden & Elliot, Barristers and Solicitors.*

The pages in this booklet are perforated. You are encouraged to tear-out the ones that are appropriate to you, i.e. if you are a teacher you will want to keep the *Kid with Diabetes Information Card* with you in the classroom. **It is also recommended that you keep the *Signs, Symptoms and Treatment of Hypoglycemia* pages nearby.**

The *Letter of Agreement* is the responsibility of the parent. The *Letter of Agreement* and the *Kid with Diabetes Information card* should be completed and reviewed by the parent annually. It is the responsibility of the parent to ensure that the materials are up to date.

More information

In the *About Diabetes* section of the resource kit you will find important information about diabetes.

There are many diabetes resources available to help you understand in more detail the management of diabetes. You are also encouraged to visit your local Canadian Diabetes Association office, call 1-800-BANTING (226-8464) or visit the Canadian Diabetes Association website, www.diabetes.ca.

We value your feedback

Your experience using the *Kids with Diabetes in Your Care* resource kit is very important to us. We encourage you to let us know how you use the kit and how we could improve it. Please send your comments to info@diabetes.ca or call 1-800-BANTING (226-8464).

What is diabetes?

Type 1 diabetes, usually diagnosed in children, occurs when the pancreas is unable to produce insulin. Insulin is an essential body requirement that ensures body energy needs are met.

Does diabetes affect a youth's performance?

Academic performance and physical activity at school should be the same as if he or she did not have diabetes. Kids with diabetes are no more susceptible to infection or illness than their classmates. Therefore, attendance should not be affected.

About Diabetes

The Balancing Act

The treatment of diabetes can be viewed as a balancing act. On the one side, food increases the amount of glucose in the blood. On the other side of the balance, exercise and insulin lower the blood glucose level by

allowing glucose to be used for energy. Blood glucose testing done by kids with diabetes or their parents is a means of monitoring the blood glucose balance. When the blood glucose is in proper balance, the youth will feel well.

Know who to turn to



1-800-BANTING (226-8464) www.diabetes.ca

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Insulin

Great strides have been made in the treatment and management of diabetes. Kids with diabetes use insulin syringes, insulin pens, or insulin pumps to give insulin.

Pump management

Many kids with type 1 diabetes have chosen to use a pump to manage their blood glucose because it allows for more flexibility and eliminates the need for multiple daily insulin injections by delivering a continuous infusion of insulin. For pump therapy to be safe, the blood glucose has to be checked a minimum of four to six times per day. The pump looks very similar to a pager, and should not be confiscated.

Food

Maintaining the proper balance of food and insulin is essential to achieving good blood glucose control. When the doctor and parents decide on an insulin dose for the youth they are assuming that the food intake will be kept relatively constant.

You do not need to know the details of the meal plans of kids with diabetes, but you must help to ensure that the principles listed below are followed if the youth is on insulin by syringe or pen:

- eating the same amount of food (carbohydrate content) each day
- eating meals and snacks at the same time each day
- no trading or disposing of food

It is usually possible to coordinate meal and snack times with typical daily schedules. A snack can often be eaten at recess or class snack time, but occasionally it will be necessary to eat during class; the student should not be singled out for doing so.

Young children with diabetes may require extra supervision in the lunchroom to ensure that they eat most of what has been provided for them. Missing a meal or snack, or eating less than planned, is a serious problem and can easily result in very low blood glucose or *hypoglycemia* and requires immediate emergency treatment. Refer to the *Signs and Symptoms of Hypoglycemia* and *Emergency Treatment of Hypoglycemia* cards found in this booklet for more information. Parents should be advised, also, of overeating and eating sweets as it can be a cause for concern.

With planning, kids with diabetes can eat many of the foods they love. If parents are notified prior to events involving food, kids with diabetes should be able to enjoy them as much as everybody else.

The sick child

When kids with diabetes become ill with the usual childhood sicknesses, their blood glucose balance is likely to change. Careful monitoring with blood glucose and urine testing, a fluid diet and extra insulin may be required. **Such illness management is the responsibility of the parents, not you.**

When kids with diabetes become ill at school the parents should be notified immediately so that they can take appropriate action.

Vomiting and inability to retain food and fluids are serious situations, since food is required to balance insulin. **If the child vomits, contact the parents immediately. If unable to reach the parents, take the child directly to the nearest hospital.**

Sports and extracurricular activities

It is critical that teachers, especially gym teachers and coaches, are familiar with the symptoms, treatment and prevention of *hypoglycemia*. Refer to the *Signs and Symptoms of Hypoglycemia* and *Emergency Treatment of Hypoglycemia* cards found in this booklet for more information.

Kids with diabetes should be encouraged to participate in as many activities as they choose. Trips, sports and extracurricular activities can promote self-esteem and a sense of well-being.

For those kids with diabetes wishing to participate in vigorous physical activity, good planning is essential so that the blood glucose balance is maintained. The major risk of unplanned vigorous activity is *hypoglycemia* – eating extra food can prevent *hypoglycemia*. Notify parents of special days that involve extra activity so that they can ensure that the child has extra food to compensate. Sports or other activities that take place during meal-time require extra planning.

Timing of meals and snacks may be varied and the insulin dose adjusted so that kids with diabetes can safely participate.



Frequently Asked Questions

What is diabetes?

There are two types of diabetes.

Type 1 diabetes, usually diagnosed in children, occurs when the pancreas is unable to produce insulin. Insulin is essential for ensuring that the body's energy needs are met. Approximately 10 per cent of people with diabetes have type 1 diabetes. If left untreated or improperly managed, the high levels of blood glucose associated with diabetes can result in a variety of complications. Timing of insulin injections, blood glucose monitoring, meals/snacks and exercise are important to maintain balance in blood glucose levels.

0 diabetes usually develops in adulthood and affects 90% of people with diabetes, although recently increasing numbers of children in high-risk populations are being diagnosed. It occurs when the pancreas does not produce enough insulin or when the body does not effectively use the insulin that is produced. People are at risk if they are age 40 or older, are overweight, have a family history of diabetes, have given birth to a baby over 9 lbs, and are of Aboriginal, Hispanic, Asian, South Asian, or African descent.

What are the signs and symptoms of diabetes?

Symptoms of 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.

What questions should I ask the parents?

Attempt to address the questions with parents during the parent-teacher interview before the school year begins. Make sure all details are added to the *Kid with Diabetes Information* card. Ask parents questions such as:

- What do I do if the youth won't eat or finish a snack, refuses blood tests or has high blood glucose?
- How do they usually handle such situations?
- What would they like you to do should it occur?
- How often could you expect this to occur?

Establish a plan for reporting incidents to parents.

What do I do if the youth won't eat or finish a snack?

You should remain calm and attempt to understand the reason for refusal. Refer to the *Kid with Diabetes Information* card that was completed by the parent.

- Could this child be having a low blood glucose reaction?
- Is it simply a matter of not liking or wanting what was provided?
- Is the child ill?

Report the incident to the parents or guardian as directed in the parent-teacher interview and on the *Kid with Diabetes Information* card. You may want to contact the parents or guardian immediately when the youth refuses to complete a meal or snack.

If the situation is repeated, work with parents on strategies such as: teaching the youth the importance of eating; reassessing the meal plan with the child's diabetes educator; reminding the student to finish the snack before going out for recess.

How can I remember a student's snack times?

Attempts are generally made to schedule snacks and lunch at usual school break times making it easier to remember that the student with diabetes eats when others eat. Ask the parents or guardian if this is possible. Ask parents to provide their child with a digital alarm watch. This cues both student and teacher to snack time.

A student is unusually tired before lunch and is unable to concentrate. Could this be hypoglycemia?

Ask the student to check his/her blood glucose level, and to treat as necessary (usually a blood glucose of less than 4 mmol/L requires treatment by oral glucose or sugar, glucose tabs, juice etc). Refer to the *Signs, Symptoms and Treatment of Hypoglycemia* cards. **Always inform the parents either by phone or written journal**, which students can take to and from home each day. Communicate any pattern of signs and symptoms of low or high blood glucose to parents or guardians, as this information will assist them in the long-term treatment, particularly, insulin and food adjustments.

As the student's teacher, do I have to test his/her blood glucose?

Teachers are not required to do blood glucose tests but can agree to supervise the student conducting a blood glucose test.

You may need to supervise younger kids when they need to test, such as before lunch or when hypoglycemia is suspected. Determine if the number is below 4 mmol/L, and then assist in treatment.

You are not required to do the finger-poke.

If in doubt, treat! If the student is unable to perform the finger-poke procedure and you suspect he/she has low blood glucose, simply provide oral glucose to treat the suspected hypoglycemia. You can't hurt the student if your assumption was wrong, and you have kept the student safe. Of course, let the parents or guardian know about the situation. Refer to the *Signs, Symptoms and Treatment of Hypoglycemia* card.

As the student's teacher, do I have to learn to give the student's insulin injection?

Teachers are not responsible for giving insulin. Most insulin injections are administered outside school hours before breakfast and supper meals and bedtime. Some students do require insulin injected before lunch, but this is the family's and student's responsibility.

Am I going to be held responsible if something happens to the student with diabetes in my care?

You are not liable, or to be held responsible, if you do what is "reasonable" under the circumstances. Ensure you:

- allow your student to eat meals and snacks fully and on time
- treat low blood glucose promptly
- assist the student with diabetes during low blood glucose treatment when necessary

Refer to *Diabetes and the Duty of Care of School Employees* and the *Teacher's Checklist*.

What do I do if I think the student has hypoglycemia?

Give the youth sugar if you are unsure whether the youth is hypoglycemic. A temporary excess of sugar will not harm the youth. Refer to the *Signs, Symptoms and Treatment of Hypoglycemia* card in this booklet. All the information

that you will need to treat a student with hypoglycemia is stated clearly. Make sure that you have reviewed the *Kid with Diabetes Information* card for special instructions from the parent.

You may need to call 911. In exceptional circumstances, if EMS is unavailable or unable to respond within 30 minutes, the school may support the administration of glucagon by trained staff or volunteers or other caregivers as needed. Refer to *Standards of Care for Students with Type 1 Diabetes in School* for more guidance.

Is it appropriate for students with diabetes to do presentations to groups at their school on the topic of diabetes?

It's a great idea to encourage students with diabetes to explain the condition to other students and teachers. Some students with diabetes will embrace the opportunity, while others might not be interested in sharing their knowledge of diabetes; this decision must also be respected.

Should students with diabetes wear diabetes identification?

The Canadian Diabetes Association strongly encourages kids with diabetes to wear MedicAlert® or other emergency identification. Many students report being asked by coaches and referees to remove their identification bracelet or neck chain during sports activities to protect other players from injury. The sports bracelet has been reportedly more acceptable during sporting events than chain types of bracelets. In the event that a student is required to remove identification, it is assumed that the coach has made the identification in the process, and therefore can assist the student if and when necessary. The medical identification can then be attached to the handles of the student's gym bag or carried by the coach and returned to the student when the event is over.

Some students dislike wearing emergency identification, like MedicAlert®, but will carry wallet cards identifying them as having diabetes. Often students dislike the very nature of being identified as having diabetes when they feel it is a very private matter. Discuss this issue with the student and their family and encourage the student to find an identification that he or she finds acceptable.



Test Your Diabetes Knowledge

Based on a questionnaire developed by

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1. Type I diabetes:

- a) affects 10% of people with diabetes and usually occurs before age 40
- b) is also called “brittle” diabetes
- c) is more serious than other types of diabetes
- d) can be cured with insulin injections

2. Kelly’s diabetes management involves balancing:

- a) food and insulin
- b) food, activity and insulin
- c) insulin and exercise
- d) I don’t know

3. If insulin is not available, the glucose level in the bloodstream:

- a) increases
- b) decreases
- c) stays the same
- d) I don’t know

4. Kelly should eat:

- a) meals and snacks at the same time each day
- b) foods that are natural and contain no sugar
- c) only when hungry
- d) high-protein, low-fat foods

5. Blood glucose monitoring:

- a) is done using a blood glucose meter
- b) tells Kelly what her blood glucose level has been for several hours
- c) should be done once per week
- d) I don’t know

6. Common symptoms of low blood glucose are:

- a) paleness, shakiness, clamminess, sweating
- b) increased thirst and urination
- c) loss of appetite and fever
- d) I don’t know

7. Treatment for low blood glucose is:

- a) 1/2 can of diet pop
- b) crackers and cheese
- c) glucose tabs (5) or fruit juice (3/4 cup/175 mL)
- d) is kept in the nurse’s office

8. If hypoglycemia is untreated, Kelly may:

- a) have a staggering gait
- b) become irritable
- c) lose consciousness
- d) all of the above

9. Kelly comes to you in gym class and says, “I feel low.” You would:

- a) call her parents
- b) tell Kelly to sit down until she feels better
- c) give her some sugar, such as glucose tabs or a small juice box
- d) have a friend escort her to the nurse’s office

10. Today, Kelly is requesting frequent trips to the bathroom and water fountain. You would:

- a) ask her to wait until the next scheduled break
- b) allow her to go to the bathroom and water fountain
- c) give her a detention for disrupting the class
- d) call her parents

11. Kelly’s friend comes to tell you Kelly is not well. You find Kelly unconscious and:

- a) roll her on her side and call for an ambulance
- b) rub honey on her gums and call her parents
- c) tell her to wake up and drink some juice
- d) I don’t know

12. The class is having hot dogs for lunch. Kelly:

- a) should have her regular lunch from home
- b) can have the hot dog, provided it fits into her meal plan
- c) cannot eat hot dogs
- d) I don’t know

Know who to turn to

- 13. Kelly wants to participate on the track and field team. To do this she must:**
- always carry some form of fast-acting sugar
 - know which days the events are scheduled so she can take extra food
 - take extra insulin
 - both a and b
- 14. Which of the following activities would NOT result in low blood glucose?**
- eating extra food at snack time
 - more activity than usual
 - throwing away or not eating part of lunch
 - I don't know
- 15. You should meet with Kelly's parents to:**
- review her usual symptoms of low blood glucose
 - discuss the preferred treatment for hypoglycemia
 - be familiar with how often Kelly requires snacks
 - all of the above
- 16. When problems arise at school with Kelly's diabetes, the first step is to:**
- have a parent-teacher conference
 - have the parents consult Kelly's doctor
 - have the parents get advice from the diabetes healthcare team
 - all of the above

Scoring:

Number correct answers (1 mark each) _____

Number "I don't know" answers (0 marks) _____

Number incorrect answers (-1 mark each) _____

Total Marks _____

Total Score:

13 - 16 You will be an effective support person to the child with diabetes in your school.

8 - 12 You have a basic understanding of diabetes.

3 - 7 You should consider learning more. Review materials in the resource package and consult with the parents and/or the student. Try the questionnaire again.

Answers

- a)** Type 1 diabetes differs from other forms of diabetes in that people affected require insulin injections for life. Other types of diabetes may be controlled using a meal plan, exercise and possibly pills called "oral anti-hyperglycemic agents," or insulin. There is no known cure for diabetes; insulin injections only help to manage it, and so people with diabetes are still at risk for other serious health risks relating to their diabetes.
- b)** Kelly's diabetes management involves balancing food intake (which raises blood glucose), activity (which generally lowers blood glucose) and insulin (which lowers blood glucose).
- a)** If there is not enough insulin in the blood, the blood glucose will rise, as the body cells are unable to access the blood glucose to store it away or convert it to energy. The glucose circulates in the blood, and the kidneys spill some into the urine.
- a)** Kelly should eat meals and snacks on time. Kelly will have injected a certain amount of insulin in the morning with the expectation that a certain amount of food will follow at certain intervals throughout the day. A dietitian determines the food intake with the student and parents. If some of the food is missed or late, Kelly will be at risk for low blood glucose. The foods may contain sugar or eventually break down to glucose (a sugar) during digestion. The food does not have to be high in protein, low in fat or "natural." People with diabetes can eat the same foods as anyone else, but to avoid low and high blood glucose they should eat according to their meal plan.
- a)** Blood glucose monitoring is done using a blood glucose meter. Many students will test 3 – 4 times a day to obtain information about the balance of their meal plan, food and activity. This information helps them to alter various parts of their plan to help normalize their blood glucose. Blood glucose monitoring also helps the student verify feelings of low blood glucose so he or she can treat appropriately.
- a)** Common symptoms of low blood glucose are paleness, tiredness, shakiness, cold, clammy sweat and nausea. Increased thirst and urination are symptoms of high blood glucose. Loss of appetite and fever would be indications of a viral or bacterial infection, and are unrelated to high blood glucose or low blood glucose.

- 7. c)** *Glucose tabs (5) or fruit juice (3/4 cup/175 mL) are an excellent source of sugar which can be quickly digested to raise the blood glucose fast. In order to prevent the blood glucose from dropping again, students will often follow the treatment in 10-15 minutes with their normal meal or snack. If the scheduled time for the meal or snack is more than an hour away, they may take an additional snack such as crackers and cheese. Juice or tablets should be accessible at all times, both in the student's main classroom and in the administration office for access from other parts of the school and grounds. Students are encouraged to carry treatment with them going to and from school, and at recess in the playground. Diet pop with artificial sweetener does not contain sugar, and would be of no value during treatment of low blood glucose.*
- 8. d)** *If hypoglycemia is untreated, Kelly may become irritable, vomit and/or lose consciousness. Kelly might also become very confused.*
- 9. c)** *You should give some sugar, such as glucose tabs or a small juice box. You could encourage Kelly to check her blood glucose, but if testing is not available then simply give the sugar. Inform Kelly's parents by the means agreed upon during your interview with Kelly's family. Kelly will not get better just by sitting out, and she may become seriously low if made to walk to another room. Have the glucose tabs or juice box accessible wherever gym class is being held.*
- 10.b)** *You should allow her to go to the bathroom and water fountain. Despite best efforts, blood glucose levels can rise, ensuring the student is okay, and discuss with the student's family if the symptoms are persistent or frequent. It is inappropriate to discipline a student for symptoms related to high or low blood glucose.*



- 11.a)** *You roll her on her side and call for an ambulance. You may be able to rub honey or glucose gel on her gums while you wait for emergency services to arrive. Notify Kelly's parents after you call for the ambulance. After you have determined that Kelly is unconscious, do not try to force food or drink or Kelly may choke or aspirate into her lungs. In remote areas, where emergency services are a distance away, parents may request they or a designate be called first, in order that they can provide the emergency service to the student with an injection of glucagon. This is an acceptable approach, as the objective is to have Kelly awake and alert as soon as possible.*
- 12.b)** *It is important that Kelly be included in all school activities. If she wants to, Kelly can have a hot dog, provided it fits into her meal plan. Kelly or her parents will be able to determine how to include the hot dog into her lunch and should communicate this to the teacher. If possible, include Kelly early in any lineups to ensure she gets her meal "fully and on time."*
- 13.d)** *To participate on the track and field team, she must, among other precautions, carry some form of fast-acting sugar and know in advance when events are scheduled so she can plan and take extra food. She would not be advised to increase her insulin, as this would increase the likelihood of hypoglycemia when increased activity is likely to reduce her blood glucose as well.*
- 14.a)** *Eating extra food would tend to raise the blood sugar. More activity than usual or missing part of a meal or snack would tend to cause low blood glucose.*
- 15.d)** *Teachers and a school administrator should meet with parents or guardians to review her usual symptoms of low blood glucose, discuss the preferred treatment for hypoglycemia and be familiar with how often Kelly requires snacks. Refer to the Administrator's Checklist.*
- 16.d)** *When problems arise at school with Kelly's diabetes it helps to have a parent-teacher conference first. If problems persist it is up to the parents to consult Kelly's doctor or diabetes team. You may feel you would like more information and if so please contact the Canadian Diabetes Association at 1-800-BANTING (226-8468) or visit www.diabetes.ca.*

Teacher's Checklist

Guidelines and Procedures

The prevention, identification and treatment of hypoglycemia in students with diabetes are the key concerns in the care of students with diabetes during the school day.

Before a student with diabetes begins classes, teachers should meet with school administrators and other teachers to review:

- ☐ The needs of each student with diabetes in their school/classes
- ☐ Essential information about supervising students with diabetes, including:
 - The *Frequently Asked Questions and Answers* section in this booklet
 - The *Test Your Diabetes Knowledge Quiz* in this booklet
 - Canadian Diabetes Association guidelines regarding prevention, identification and emergency procedures/treatment for hypoglycemia episodes from the *Signs and Symptoms* and *Treatment for Hypoglycemia* cards in this booklet
 - School policies, procedures, and expectations regarding supervising students with type 1 diabetes, responding to hypoglycemic episodes, contacting parents and related concerns
 - General daily routine for students with diabetes in your school
 - The completed *Kid with Diabetes Information* card
- ☐ The guidelines for supervising students with diabetes and for responding to hypoglycemia episodes that is found on the back of this page.

Teacher's Checklist

Hypoglycemia: Guidelines and Procedures

Prevention

- ☐ Know your role in supervising students with diabetes in your care, including:
 - Know the specific needs and routines of each student (ensure that you have current information from parents and from the school office).
 - Ensure the safety of students with diabetes during special events you are supervising, such as school trips, parties, intramural sports, etc. (specifically: have emergency glucose on hand, watch for signs of hypoglycemia).
 - Ensure that the student completes all meals/snacks on time during the school day.
 - Know when to contact the parents or school administration regarding potential problems or concerns (e.g. when the student does not finish meals/snacks; after incidents of moderate or severe low blood glucose; signs of high blood glucose; any unusual changes in behaviour or attitude, routines, academic achievement, etc.)



Identification

- ☐ Know the names of students with diabetes under your supervision.
- ☐ Ensure that students wear diabetes identification during the school day (including during sports and gym activities).
- ☐ Know each student's symptoms of low blood glucose.
- ☐ Encourage the student to tell you when he/she "feels low."

Treatment/emergency procedures:

- ☐ Review emergency procedures (specifically your role) for responding to hypoglycemia episodes (e.g. providing fast-acting sugar for treatment of hypoglycemia).
- ☐ Know the location of the student's emergency treatment supplies (e.g. homeroom, phys-ed. office, main office, teacher's room, bus, etc.).
- ☐ Permit the student with diabetes to take action to prevent or treat low blood glucose during the school day (allow flexibility in class routine and school rules as required).
- ☐ Know the emergency contact procedures (including which school personnel are responsible for contacting parents and/or emergency services).

Know who to turn to

Signs and Symptoms of Hypoglycemia

Please keep this card, or a photocopy, with you in the classroom.

What is hypoglycemia?

Hypoglycemia happens when the amount of blood glucose in the body has dropped below 4 mmol/L.

Hypoglycemia is an emergency situation. It can happen within minutes of the youth appearing healthy and normal, so it is important to take care of it right away.

If blood glucose levels drop very low the youth may:

- Become confused and disoriented
- Lose consciousness
- Have a seizure

What causes hypoglycemia?

Hypoglycemia can be caused by:

- More physical activity than usual
- Not eating on time
- Missing or delaying meals
- Taking too much insulin

If blood glucose levels do drop very low, your assistance might be needed. Encourage the youth to always wear their MedicAlert® or other emergency identification in case of an emergency like this.

What are the signs of hypoglycemia?

- cold, clammy or sweaty skin
- pallor
- difficulty concentrating
- shakiness, lack of coordination (e.g. deterioration in writing or printing skills)
- irritability, hostility, and poor behaviour
- a staggering gait
- fatigue
- nervousness
- excessive hunger
- headache
- blurred vision and dizziness
- abdominal pain or nausea
- fainting and unconsciousness

What about hyperglycemia?

Hyperglycemia happens when blood glucose levels are higher than the youth's target range. The youth will be thirsty, urinate more often and be tired. Emergency treatment is generally not required, but if you suspect hyperglycemia, refer to the parent's instructions on the *Kid with Diabetes Information* card.

Emergency treatment of hypoglycemia is on the reverse side of this card.



Emergency Treatment of Hypoglycemia

Please keep this card, or a photocopy, with you in the classroom.

DO NOT give food or drink if the student is:

- unconscious
- having a seizure or
- unable to swallow

DO

- roll the student on his/her side
- call 9-1-1 or emergency medical services
- contact the parent or guardian identified on the Kid with Diabetes Information card

- If the next meal is more than one hour away, or the youth is going to be active, ensure that the student eats a snack, such as a half-sandwich or cheese and crackers (something with 15 grams of carbohydrate and a protein source.)

If you are unsure whether the youth is hypoglycemic, always give sugar! A temporary excess of sugar will not harm the youth, but hypoglycemia is potentially serious.

It may take some coaxing to get the youth to eat or drink but you must insist. Usually their next regular meal or snack is adequate.

Don't leave the youth unsupervised until recovery is complete. The youth can then resume regular class-work. **It is imperative that the youth be accompanied by a responsible person if they go home.**

Parents should be notified of all incidents of hypoglycemia. Repeated low blood glucose levels are undesirable and unnecessary and should be drawn to the parent's attention so that they can discuss the problem with their doctor.

Emergency medical identification

MedicAlert®, or other emergency medical identification, can help speed up treatment and diagnosis. Check for a bracelet/necklet on an unresponsive person. Immediate treatment can be aided by the crucial medical information found on the back of the jewellery.

Treatment of hypoglycemia

Do not leave the student alone. It is imperative at the first sign of hypoglycemia to give sugar immediately.

If the parents have not provided you with more specific instructions, give the youth:

- 15 g of glucose in the form of glucose tablets
- 15 mL (3 teaspoons) or 3 packets of table sugar dissolved in water
- 175 mL (3/4 cup) of juice or regular soft drink
- 6 Life Savers® (1=2.5 g of carbohydrate)
- 15 mL (1 tablespoon) of honey

Wait 10 to 15 minutes, if there is no improvement

- Treat again

Signs and symptoms of hypoglycemia are on the reverse side of this card.

Know who to turn to



1-800-BANTING (226-8464) www.diabetes.ca

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Kids with Diabetes Information Card

Please remove this card and keep it with you in the classroom.

Personal information obtained from parent

Name _____

Age _____ Grade _____

Parent's name _____

Address _____

Home phone _____ Business phone _____

Alternate person to call in an emergency _____

Names and grades of siblings in the school _____

Doctor's name _____

Doctor's phone _____

Emergency medical services e.g. 911 _____

Nearest hospital _____

Health insurance number _____

Time of day when low blood glucose is most likely to occur _____

Symptoms commonly experienced _____

What has been provided to treat hypoglycemia _____

Where is it located _____

Type of morning snack _____

Type of afternoon snack _____

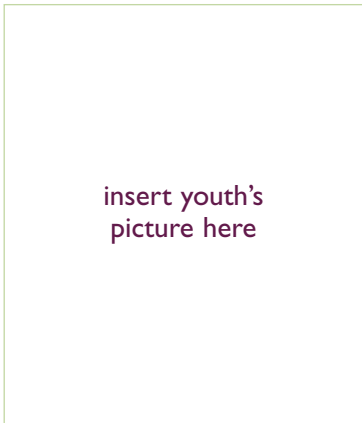
Suggested treats for in-school parties/events _____

Sports and extracurricular activities:

It is critical that the people who have kids with diabetes in their care, especially gym teachers and coaches, are familiar with the symptoms, treatment and prevention of hypoglycemia. For more information about hypoglycemia, refer to the *About Diabetes* section and the *Signs, Symptoms* and *Treatment of Hypoglycemia* tear-out cards.

Notes:

Special instructions:



Know who to turn to

Administrator's Checklist

Guidelines and Procedures

School administrators should meet with the parents of a student with diabetes before classes begin to discuss the following concerns and issues:

Communication/education

Review relevant information in the *Kids with Diabetes in Your Care* resource kit, including the *Standards of Care for Children with Type 1 Diabetes in School* and the *Parent's Checklist* and *Teacher's Checklist*.

Ensure that parents notify the school regarding special needs or changes in their student's health, lifestyle, or diabetes management (typical signs and treatment of low blood glucose, meal and snack times), emergency contact numbers, etc.

In-service training for school staff

Ensure that school personnel in contact with students with diabetes during the school day are adequately prepared to respond effectively to hypoglycemia incidents and other emergency situations (e.g. teachers, substitute teachers, office staff, volunteers, bus drivers, lunchroom supervisors).

Facilitate the in-service training using the *Test Your Diabetes Knowledge Quiz*, *Frequently Asked Questions*, *Teacher's Checklist*, *Signs and Symptoms* and *Emergency Treatment of Hypoglycemia*.

Blood glucose monitoring/insulin concerns

Provide a safe, hygienic and private space in the school for students to perform self-blood-glucose monitoring and insulin injections throughout the school day.

With the assistance of public health department and parents, establish procedures for safe disposal of sharps (injection devices), lancets and testing strips.

Designate a secure, accessible and appropriate place to store insulin, blood glucose testing supplies and emergency food supplies (meals and snacks).

On going communication

Parents should meet with school administration to review and update information in the *Letter of Agreement* and the *Kid with Diabetes Information* card each year or as needed (e.g. changes in teachers or schools, school trips, new information about students' special needs, changes in lifestyle, medication, contact numbers and procedures, etc.).

Parents should provide information about local support and resources for the school e.g. *Test Your Diabetes Knowledge Quiz* for school personnel, etc., found in this resource kit.

Parents should provide further education, training and support for any personnel who are unsure or anxious about their role regarding the supervision and care of students with diabetes.

Prevention, identification and treatment of hypoglycemia

Parents and school administrators should review the key guidelines concerning the prevention, identification and treatment of hypoglycemia in students with diabetes during the school day on the back of this page.



Administrator's Checklist

Hypoglycemia: Guidelines and Procedures

Prevention

School staff must ensure the safety of students with diabetes during special events such as school trips, parties, intramural sports, etc. (specifically: have emergency glucose on hand, watch for signs of hypoglycemia).

School staff should ensure that the student completes all meals/snacks on time during the school day.

Parents should tell the school when to contact them (e.g. when the student does not finish meals/snacks; after incidents of moderate or severe low blood glucose; signs of high blood glucose)

Identification

School staff should know the names of students with diabetes.

Teachers should ensure that the student wears MedicAlert® or other emergency medical identification during the school day (including during sports and gym activities).



Parents should complete the *Kids with Diabetes Information* card found in this booklet, and tell the school about any special needs or concerns regarding the health and care of the student.

Treatment

Parents should supply the school with enough fast-acting sugar for prevention and treatment of hypoglycemia (the school should contact the parents when new supplies are needed).

Ensure that supplies will be stored in safe, accessible location(s) (gym and other sports areas, homeroom, main office, teacher's room, buses, etc.).

School staff will let students with diabetes take action to prevent or treat hypoglycemia during the school day (relax school rules as required).

School staff should help students with diabetes when they experience hypoglycemia, as required.

Emergency procedures

Discuss emergency procedures for treating moderate or severe hypoglycemia.

Make sure that contact names and numbers are up to date for each student.

Post copies of the *Signs, Symptoms and Treatment of Hypoglycemia* two-sided card found in this booklet in the staff room, school office, gym office, etc.

School staff must notify parents immediately after treatment of moderate or severe hypoglycemia.

Know who to turn to

Parent's Checklist

Guidelines and Procedures

Parents of students with diabetes should meet with a school administrator before the student begins the school year. This checklist contains items to be covered in the meeting. Parents should ask for a meeting of about 30-60 minutes.

- ☐ Provide information to the school
- ☐ Provide the school with copies of the Canadian Diabetes Association *Kids with Diabetes in Your Care* resource kit.
- ☐ Complete the *Kid with Diabetes Information* card found in this booklet, for the school. The card should include specific needs and concerns, signs and treatment of low blood glucose, meal and snack times, emergency contact numbers.
- ☐ Review school policies
- ☐ Educate teachers and other school staff about type 1 diabetes (especially the role of insulin, diet and exercise) and emergency action for hypoglycemia.
- ☐ Parents should urge school administrators to talk about diabetes and the hypoglycemia guidelines with school staff annually.
- ☐ Review blood glucose monitoring/insulin concerns
- ☐ Ask the school to find a safe, hygienic and private space in the school for students to do their self-blood-glucose monitoring and insulin injections throughout the school day.

- ☐ Discuss the need for safe disposal of sharps (injection devices), lancets and testing strips.

- ☐ Ask the school to find a safe place to store insulin, syringes, blood glucose testing supplies and emergency food supplies (meals and snacks).

Commit to ongoing communication and education

Meet with school teachers or administrators to review and update information in the *Letter of Agreement* and the *Kid with Diabetes Information* card each year or as needed (e.g. changes in teachers or schools, for school trips, camps and travel, current information about student's special needs, changes in lifestyle, medication, contact numbers)

- ☐ Provide information about local support and resources for the school e.g. *Test Your Diabetes Knowledge Quiz* for school personnel, etc., found in this kit.
- ☐ Provide education, training and support for any teachers or other school staff who are unsure about their role in caring for students with diabetes.

Prevention, identification and treatment of hypoglycemia

Prevention, identification and treatment of hypoglycemia are the key concerns in taking care of students with diabetes during the school day. See the guidelines for prevention, identification and treatment of hypoglycemia on the back of this page.



Parent's Checklist

Hypoglycemia: Guidelines and Procedures

Prevention

School staff must ensure the safety of students with diabetes during special events such as school trips, parties, intramural sports, etc. (specifically: have emergency glucose on hand, watch for signs of hypoglycemia).

School staff should ensure that the student completes all meals/snacks on time during the school day.

Parents should tell the school when to contact them (e.g. when the student does not finish meals/snacks; after incidents of moderate or severe low blood glucose; signs of high blood glucose, etc.).

Identification

School staff should know the names of students with diabetes.

Teachers should make sure that the student wears MedicAlert® or other emergency medical identification during the school day (including during sports and gym activities).

Parents should complete the *Kids with Diabetes Information* card found in this booklet, and tell the school about any special needs or concerns regarding the health and care of the student.

Treatment

Parents should supply the school with enough fast-acting sugar for prevention and treatment of low blood glucose (the school should contact you when new supplies are needed).

Ensure that supplies will be stored in safe, accessible location(s) (gym and other sports areas, homeroom, main office, teacher's room, buses, etc.). Label food supplies with the student's name and room number.

School staff will let the student with diabetes take action to prevent or treat low blood glucose during the school day (relax school rules as required).

School staff should help students with diabetes when they experience hypoglycemia, as needed.

Emergency procedures

- Discuss emergency steps for treating moderate or severe low blood glucose. Make sure that contact names and numbers are up to date for each student.
- Ask the school to put up a copy of the *Signs, Symptoms and Treatment of Hypoglycemia* two-sided card found in this booklet in the staff room, school office, gym office, etc.
- Ask school staff to call you immediately after treatment of moderate or severe hypoglycemia.

Know who to turn to

Diabetes and the Duty of Care of School Employees

In all jurisdictions in Canada there is legislation governing education which sets out the duties of teachers and other school board employees. In general, the legislation does not prescribe positive duties to administer medical treatment. However, each statute does require that school board employees adequately supervise the students under their care. Some statutes explicitly require teachers or principals to monitor the health or safety of students. For example, the Ontario Education Act provides that a principal has a duty “to ... give assiduous attention to the health and comfort of the pupils ...” Similarly, the Nova Scotia Education Act requires teachers to “attend to the health, comfort and safety of the students.” The Prince Edward Island School Act requires both teachers and principals to attend to the health, comfort and safety of students.

In our view, these and related provisions in the provincial education statutes impose an obligation on school administrators to assist in or manage medical treatment where doing so is in the best interests of the student, is reasonable, and can be carried out with no training or special skills.

There does not appear to be any prohibition on the delegation of this task to teachers, or even non-teaching personnel, such as a school secretary. In an emergency situation, the common law generally provides that a person who attempts in good faith to assist someone in peril exposes himself to potential civil liability if he bungles the attempt. On the other hand, a person who stands idly by without lifting a finger incurs no liability. Thus, there is no general civil duty to render assistance to individuals in danger.

In our view, however, the general principle which encourages passive inaction does not apply to the special relations between a school and its students. Our courts have held that a school has a special responsibility towards its students which, we believe, imports an additional obligation to engage in positive conduct for students’ benefit in an emergency situation. At common law, the standard of care which a teacher is expected to show towards a child under his or her charge is such care as would be exercised by a reasonably careful or prudent parent. This standard of care requires, in our view, no more than would be reasonable in the particular circumstances having regard to the relationship between teacher and student.

Our courts have held that a person who makes a reasonable decision as to a course of action in an emergency will not be treated as having acted negligently if the course of action ultimately turns out to be wrong. All that is necessary is that the decision was not unreasonable, taking the exigencies of the particular situation into account. There is no absolute standard of care, but rather the standard of care varies according to the circumstances and the risk involved.



Standards of Care for Students with Type 1 Diabetes in School

Abridged from the Position Paper of the Canadian Diabetes Association Prepared by the School Standards Implementation Subcommittee of the National Service Council

A Canadian Diabetes Association position paper makes recommendations for the care of students with type 1 diabetes in the school system. The purpose of setting such standards is to clearly outline the roles and responsibilities of parents, students with diabetes and school personnel.

The goals are as follows:

- to provide direction and resources to broaden the understanding of all parties;
- to improve communication; and
- to minimize anxiety on the part of parents and school personnel by taking appropriate steps to ensure the safety, health and success of students with diabetes while they are under school supervision.

Issues of Concern

- School-aged students with type 1 diabetes spend 30 to 35 hours a week in the school setting. This represents more than half of their waking week-day hours.
- School personnel who are knowledgeable in diabetes care can increase students' and parents' satisfaction with the educational experience. Lack of knowledge of diabetes on the part of school personnel can cause apprehension, inappropriate responses during hypoglycemia, restriction of a child's participation in school activities, mistrust, anxiety and poor communication with parents.
- Severe hypoglycemia will occur in 3 – 8/100 students per year and occur most commonly at night. Severe hypoglycemia is rare in the school setting. Mild to moderate hypoglycemia is common in the school setting.
- Some school-aged students will be taking multiple doses of insulin, which may include some before lunch at school.

- Hypoglycemia and hyperglycemia may interfere with learning and participation in activities.
- Crises can arise from school personnel inaction, misinformation and rigidity in applying rules that are contraindicated in the management of diabetes. The following points highlight some specific problems that arise out of lack of understanding of diabetes or misinformation.

Self blood glucose monitoring

- There is often no provision for students to adequately perform self-blood glucose monitoring (privacy, sufficient time, hygienic conditions).

Mild to moderate hypoglycemia

- Symptoms of mild to moderate hypoglycemia can be misinterpreted by school personnel.
- The nature of the emergency is often misunderstood, placing a student at serious risk.
- Some students are disciplined or punished for behaviours that are associated with hypoglycemia or

hyperglycemia which should be seen as cues to treatment.

- Conflict regarding when and where a student may eat to treat a low blood glucose reaction and who is to supply the treatment (food or gel) can create confusion and delay treatment, placing the student at risk.

Severe hypoglycemia

- Some families expect school personnel to administer glucagon, some to call emergency services.
- Glucagon administration can be problematic since school personnel are not trained in the procedure. Parents or designates, however, may provide glucagon injection training, if the school and parent agree. The parent can work with the school to ensure supply and proper storage of the glucagon kit.

Hyperglycemia

- Some students are inappropriately disciplined for behaviours associated with hyperglycemia (i.e. requests to go the bathroom or requests for frequent drinks).

Know who to turn to

The following standards recognize the essential partnerships among the student, family and school personnel.

- * The position paper is based on the Consensus Position Re: Standards of Care for Children with Type I Diabetes in School by Dr. Heather J. Dean and Gen Henderson, unpublished, 1994.

Communication and Education

Family/student/school shared responsibility

- Frequent communication between school personnel and parents is essential, especially for changes in school activity, special events or snacks (including home economics classes), to avoid high or low blood glucose.
- Parents and school personnel must regularly review prevention, identification and treatment of low blood glucose, as well as emergency procedures for treating moderate to severe low blood glucose.
- Parents are generally the best people to provide specific information about their child/adolescent. A school administrator and identified key school personnel in contact with students with type 1 diabetes must receive education. The school administrator will be responsible for disseminating information to other school personnel.
- Diabetes education teams and/or trained healthcare professionals may be involved when language, cognitive ability, behavioural issues or serious psychosocial barriers exist. Diabetes education inservices for school personnel may also be available to support the parent's education of school personnel.

School responsibility

- There must be a formal communication system in place that includes all school personnel who are in contact with the student with diabetes at school.
- The student with diabetes must be clearly identified, for example, with a photograph to which all school personnel can refer. A copy of emergency and treatment procedures must be readily available for all staff to refer to.
- There must be flexibility in school rules to ensure that the student can prevent or treat low blood glucose. The student may have to eat on the bus, at his or her desk, not participate temporarily in certain activities, ask for assistance, etc.
- School personnel are encouraged to seek opportunities to learn more about diabetes.
- Students with diabetes can participate in all school activities. The safety of the student must be ensured by providing adequate supervision at such special events as field trips, parties, intramural sports, etc.

Family/student responsibility

- Families must strongly encourage their student to wear diabetes identification (e.g. MedicAlert®) at all times. Emergency medical identification identification speaks when the student cannot, and it provides vital information.
- Some students are interested in and willing to do presentations to classmates and participate in "teaching the teachers." When appropriate, this should be encouraged.

Blood Glucose Monitoring

School responsibility

- School personnel are not expected to participate in blood glucose monitoring unless there is mutual agreement, and separate training has been provided for identified school personnel in contact with very young students or with students with special needs who cannot do blood testing by themselves.
- Laws vary from province to province about who is legally permitted to draw blood. Schools should be informed about the laws in their particular province.
- Students who are able can do blood glucose monitoring as necessary in a designated area in the school or classroom. Students must be allowed enough time and have access to a clean, private space to test their blood.
- Arrangements must be made for safe disposal of lancets and needles. Disinfecting of the blood glucose monitoring areas with appropriate cleaners should be done according to school policy regarding blood and body fluid precautions.

Family/student responsibility

- Parents, not school personnel, are responsible for making treatment decisions based on results of blood glucose monitoring unless a special arrangement is made between the parents and the school personnel.
- If parents have arranged for school personnel to make management decisions, it is critical that they provide clear guidelines for prevention and treatment of hypoglycemia.

Hypoglycemia (Low Blood Glucose)

School responsibility

- School personnel must endeavour to ensure that students eat all snacks and meals, fully and on time. This is especially important in elementary schools for younger students and those with special needs.
- Students must be permitted to take oral glucose to prevent or treat low blood glucose anywhere on school property, on buses or during school-sanctioned activities.
- Students should not be left alone for at least 30 minutes after the treatment of low blood glucose. Until the student is fully recovered, he/she should not be left unsupervised. Once the recovery is complete, the student can assume regular classwork. If, however, it is decided that the student should be sent home, it is imperative that he/she is accompanied by a responsible person.
- School personnel must contact the parents immediately after treatment of moderate or severe low blood glucose.
- School personnel must contact the parents immediately if the student is unable to eat or vomits at school.
- Where necessary, arrangements must be made to safely store an accessible supply of glucagon.
- The school must provide for safe and accessible storage of the student's food supplies.

Family/student responsibility

- Parents or designates must discuss low blood glucose with school personnel (i.e. causes, prevention, identification, treatment). This must include highlighting special signs or characteristics in the student.
- Parents or designates must review emergency procedures for treating moderate to severe low blood glucose annually and as needed with school personnel (e.g. new staff).
- Parents or designates must provide an extra snack as well as a constant supply of fast-acting sources of sugar at school to prevent and treat low blood glucose. Supplies must be kept in several locations throughout the school, such as the homeroom, gym, principal's office and teachers' room as mutually agreed upon by the family/student and the school.
- Oral glucose is not considered a medication. If this is contentious, a blanket consent form (which authorizes the school to give the oral glucose) can be provided by the parents at the beginning of the school year.
- School personnel are not responsible for treating severe low blood glucose with glucagon. In exceptional circumstances, if EMS is unavailable or unable to respond within 30 minutes, the school may support the administration of glucagon by trained staff, volunteers, and other caregivers as needed for the treatment of severe hypoglycemia. Parents or designates can provide glucagon injection training. In these unusual cases, parents must provide and replace a glucagon kit with the expiry date clearly marked.

Insulin Administration

School responsibility

- School personnel are not responsible for giving insulin injections.
- School personnel must ensure that the student has time and a clean, private space to self-inject insulin if necessary.
- School personnel must make arrangements for the safe storage of insulin and syringes/pens if necessary.
- School personnel must arrange for the safe disposal of lancets, syringes, test strips, etc. This may mean that a container for sharps is provided by a school nurse or parents, or that the student transports sharps home for disposal.

Family/student responsibility

- If the student requires insulin during school time, the student and family are responsible for performing this aspect of diabetes care.
- Family and student must safely dispose of sharps at school or transport sharps home for disposal.
- School personnel are often supervising children who are administering their own insulin with a pump. School personnel may be involved in supervising dosing, but only if a mutual agreement has been made between school personnel and parents. In these cases, parents must provide school personnel with training on pump administration.

Know who to turn to

Letter of Agreement Between Parent and School

The Letter of Agreement and the Kid with Diabetes Information card should be completed and reviewed by the parent annually where appropriate. Completion of this agreement is not mandatory, however it is encouraged. It is the responsibility of the parent to ensure that the materials are up-to-date and maintain the Letter of Agreement.

Child's Name: _____

Parent:

I agree to carry out reliably the parent's responsibilities as listed in the Standards of Care for Students with Type 1 Diabetes in School.

I give my consent for the staff of _____
School to execute the school's responsibilities as outlined in the Standards.

In the event of an emergency (severe hypoglycemia incident), I authorize the school staff identified to obtain emergency services and to authorize such emergency treatments as is necessary. I agree to assume responsibility for all costs associated with medical treatment.

Parent: _____

Date: _____

School Administrator:

The school personnel have reviewed and will carry out the responsibilities listed in the Standards associated with the care of _____

Name: _____

The school personnel have reviewed the material in the Kids with Diabetes in Your Care Resource Kit provided by the parent and prepared by the Canadian Diabetes Association.

The following school personnel are identified as key contacts with the above-named student:

Name: _____ Position: _____

Name: _____ Position: _____

School Administrator: _____

Date: _____



Know who to turn to

The Canadian Diabetes Association works to promote the health of Canadians through diabetes research, education, service and advocacy.

Canadians can turn to the Canadian Diabetes Association for answers and help in accessing diabetes resources across the country.

With a presence in over 150 communities, the Canadian Diabetes Association's strong network of assistance includes volunteers, employees, healthcare professionals and partners.



Canadian Diabetes Association

1-800-BANTING (226-8464)

www.diabetes.ca

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Know who to turn to