A toolkit to inform on diabetes in schools

WHAT IS DIABETES?
* TYPE 1
* TYPE 2
This diabetes information pack for schools has been developed for different groups of people.

You will easily find your way using these tabs.
WHAT IS DIABETES?
* Type 1
* Type 2

A toolkit to inform on diabetes in schools
Acknowledgements:

This material has been developed in collaboration with the members of the KiDS Advisory Committee:

Monika Arora, Anne Belton, David Cavan, David Chaney, Daniela Chinnici, Stephen A. Greene, Agnès Magnen, Angie Middlehurst, Denise Reis Franco, Nikhil Tandon, Sara Webber.

Publication coordinators: David Chaney, Daniela Chinnici (kids@idf.org)

Illustrations: Frédéric Thonar (alias Tonu) www.tonu.be

Layout: Olivier Jacqmain (Publications Manager of IDF)

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We would appreciate your feedback on pack usage and photos from your information sessions.

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  Causes, symptoms and how to cope with it
- What to do if a child has low blood sugar
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- School activities with children to explain diabetes
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INTRODUCTION

The following KiDS information pack will guide you in making the school environment a better place for children with diabetes. The pack is an awareness and information tool created to inform teachers and children about diabetes. This pack should be seen purely as an information resource and is not intended to replace the advice of the diabetes team.

THE AIM OF THIS PACK IS TO:

- Increase awareness of diabetes in school
- Improve the lives of children with diabetes at school and fight discrimination
- Help teachers address the topic of diabetes and need for a healthy lifestyle

Why a blue circle?

The icon was designed as a call to unite for diabetes and is a symbol of support for the UN Resolution on Diabetes. The colour blue represents the sky and it is the same colour as the flag of the United Nations.
WHAT IS DIABETES?
A day in the life of Tom, living with type 1 diabetes

GET UP, TOM!

YAWN

HELLO, TOM!
HOW DID YOU SLEEP?
DO YOU WANT YOUR BREAKFAST?

Hi, Mom!

BY THE WAY... HAVE YOU CHECKED YOUR BLOOD SUGAR?

HERE IS YOUR INSULIN!

THANKS, MOM.

CEREALS

AND NOW... BREAKFAST!

... THEN GET DRESSED...

BURP!

BYE!

School Bus
Hey guys!

Hey Tom!

10.30 AM

RRRRRR

Insulin before lunch

Hey, Tom! Do you want to play football after lunch?

Sure!
Ok guys. It's time for your sports class.
Type 1 Diabetes

Diabetes Information Pack for Schools
A TOOLKIT TO INFORM ON DIABETES IN SCHOOLS

10

TEACHERS

Hey mom!

Hi, Tom! Did you have a good day at school?

Yeah, yeah! I'm starving!

Have an apple!

Now quick with the homework...

...so I can skate more!

Ha! You're just in time for dinner!

Ok... let's see my blood sugar...

My insulin... now...

Dinner!

Time for some digestive TV!

Last blood sugar check

A big glass of milk...

Time for bed, Tom! Already?

The End

The End
WHAT IS TYPE 1 DIABETES?

Type 1 diabetes is diagnosed when the pancreas stops making insulin completely. It is an autoimmune disease which means the body’s own immune system attacks the pancreas destroying the cells that make insulin. This results in the body being unable to control the amount of sugar in the blood.

Diabetes can develop in a child of any age, including infants and toddlers. Type 1 diabetes often develops quickly and may be life-threatening if not diagnosed early.
MYTHS ABOUT DIABETES?

Quiz true or false

TRUE OR FALSE:
Eating too much sugar causes diabetes

FALSE: When kids get type 1 diabetes, it’s because their bodies can’t make insulin anymore. It has nothing to do with eating too much sugar. When kids get type 2 diabetes there might be a connection because eating too much sugar (or foods with sugar, like candy or regular soda) can cause weight gain, and weight gain can lead to type 2 diabetes.

TRUE OR FALSE:
People with diabetes should not exercise

FALSE: Exercise is important for all children— with or without diabetes. Exercise has many benefits. It keeps kids healthy and fit, and also helps them balance their blood sugar.

TRUE OR FALSE:
You can catch diabetes from another person

FALSE: Diabetes is not contagious, so you can’t catch it from someone who has it.

TRUE OR FALSE:
Kids with diabetes can never eat sweets

FALSE: Kids with diabetes can eat sweets — as part of a balanced, healthy diet. Like everyone else, a person with diabetes shouldn’t eat too many sweets because they may cause damage to teeth and they don’t have many vitamins and minerals.
AS A TEACHER WHAT DO I NEED TO KNOW?

A CHILD WITH TYPE 1 DIABETES...

...can participate fully in physical education (gym class) and other extracurricular activities (including field trips, camps, visits, etc)

...sometimes can have a low blood sugar called a Hypo which needs to be managed

...needs to inject insulin in a safe place and at prescribed times

...should eat their lunch at an appropriate time and have enough time to finish the meal

...needs to do blood sugar checks regularly

...should have free and unrestricted access to water and the bathroom

...may need to eat snacks outside scheduled mealtimes
WHAT DO I NEED TO KNOW ABOUT LOW BLOOD SUGAR?

Hypoglycaemia or low blood sugar

CAUSES
Low blood sugar may be caused by:
- Too much insulin on board
- Too little carbohydrate
- Unplanned exercise and activities
- Missed or delayed meals/snacks

SYMPTOMS
- Sweating
- Blurry vision
- Dizziness
- Anxiety
- Gorill
- Hunger
- Irritability
- Shakiness
- Fast heartbeat
- Headache
- Weakness
- Fatigue
WHAT TO DO IF A CHILD HAS LOW BLOOD SUGAR

How to cope with hypoglycaemia or low blood sugar

When a hypo does happen it is very important to act quickly:

Ask the child to check his/her blood sugar if he/she has a (gluco)meter

Ensure that the child consumes a fast acting carbohydrate (see next page)

Listen to the child, don’t ignore their needs or their friends’ worries

FOLLOW WITH A SNACK OR MEAL IF DUE

Be aware of the level of consciousness of the child. If the child is unconscious seek immediate medical attention and contact his/her family.

Ensure that child is supervised during hypoglycaemia and until recovery.

Check blood glucose again after 15 minutes.
WHAT TO DO IF A CHILD HAS LOW BLOOD SUGAR

How to cope with hypoglycaemia or low blood sugar?

Get the child to recheck his/her blood sugar in 10 – 15 minutes. If still low, repeat the treatment.

Send a note to parents to let them know their child had a low blood sugar at school.
WHAT DO I NEED TO KNOW ABOUT HIGH BLOOD SUGAR?

Hyperglycaemia or high blood sugar

CAUSES

High blood sugar may be caused by:

- Too little insulin on board.
- Eating too much carbohydrate.
- Stress from an illness. (such as a cold or flu)
- Other stress/anxiety. (such as family conflicts or exams)

SYMPTOMS

- Very thirsty
- Need to urinate often
- Irritability
- Stomach pain

Diabetes Information Pack for Schools

A TOOLKIT TO INFORM ON DIABETES IN SCHOOLS
WHAT TO DO IF A CHILD HAS A HIGH BLOOD SUGAR

How to cope with high blood sugar

What to do in case of high blood sugar

A CHILD WITH A HIGH BLOOD SUGAR LEVEL SHOULD BE ADVISED TO:

- Drink plenty of water to keep hydrated
- Check his/her blood sugar and repeat the blood sugar test level in about 2 hours
- If his/her blood sugar level is very high (15 mmol/l or 270 mg/l) contact the school nurse or child parents so they can seek further advice

ATTENTION

When high blood sugar occurs over a number of days, it is important to report to parents and school nurse.
WHAT DO YOU NEED TO KNOW ABOUT EXERCISE AND DIABETES?

Exercise is a key component of diabetes management. With few special considerations, a child with diabetes can fully participate in all athletic opportunities available in schools.

The duration and intensity of exercise will have an influence on blood glucose levels. To avoid low blood sugar episodes, a child with diabetes may need to eat an additional snack before, during and after exercising.

All of the students with diabetes need to have their "Hypo Pack" (see guidelines in annex).

If a child has symptoms of low blood sugar or will be participating in more than 40-45 minutes of physical activity, blood glucose levels should be checked before exercising.
WHAT ABOUT EXTRA CURRICULAR ACTIVITIES?

I can participate in all after-school activities. My teacher should notify my parents as soon as possible and invite them to the planning stage of the activity especially if this involves an overnight.

I’ll bring with me:

- a diabetes pack with a meter, insulin and a sugar source.
- a fast-acting carbohydrate snack or drink in case of hypoglycaemia.
- extra snacks in case lunch is delayed or we get more exercise than usual.
- a bottle of water.

An overnight activity means I need to be able to inject my insulin or this needs to be arranged with my parents.
Type 2 diabetes is being diagnosed in children in a growing number of countries. In the United States, up to 1 in 3 new cases of type 2 diabetes, is diagnosed in youth younger than 18.

**WHAT IS TYPE 2 DIABETES?**

Type 2 diabetes is diagnosed when the body does not produce enough insulin to function properly, or the body’s cells don’t react to insulin. This is known as insulin resistance. If this happens, the body is unable to control the amount of glucose in the blood.

**SYMPTOMS:**

Unlike type 1 diabetes, in people with type 2 diabetes the symptoms are often mild or absent, making this type of diabetes hard to detect.

In general the most common signs are:

- **Weight Loss**
- **Very Thirsty**
- **Need to Urinate Often**
- **Weakness/Fatigue**
AS A TEACHER WHAT DO I NEED TO KNOW?

A CHILD WITH TYPE 2 DIABETES...

... may need to monitor blood sugar regularly

... should have free and unrestricted access to water and the bathroom

... might take insulin or other medications

... needs to eat healthy food

... needs to practise physical activity regularly
WHY DO PEOPLE NEED TO PREVENT & TAKE CARE OF DIABETES

BECAUSE IT CAN LEAD TO:

- Foot problems
- Damage to the retina
- Kidney disease
WHY IS IT IMPORTANT TO CHOOSE A HEALTHY LIFESTYLE?

TO PREVENT:

OVERWEIGHT

TIREDNESS

FEELING SICK

UNHEALTHY HEART
HOW TO STAY HEALTHY?
EAT WELL

There is a lot of evidence that lifestyle changes can help prevent the development of type 2 diabetes.

Try to remember these proportions in your daily meals.
HOW TO STAY HEALTHY?
MOVE WELL

A healthy diet is built on a base of regular physical activity, which keeps calories in balance and weight in check.

TIPS TO GET ACTIVE:

- Try sports and choose one you like
- Set regular times for activities; make it a part of your daily schedule
- Reduce use of screen time (TV, computers etc..) and play with friends
- Walk to school
- Take the stairs instead of an elevator
- Learn to use the skateboard, the bike or run instead of getting a ride
- Walk the dog with your parents
- Turn off your TV, smart phone or computer and spend some time playing with your friends
- Stay active: do a minimum of 30 minutes of exercise per day!
- Exercise with a friend
STAY HEALTHY: FOLLOW YOUR HEART

BECOME AN HEALTH ANGEL!

PHYSICAL ACTIVITY KEEPS YOUR HEART HEALTHY

REDUCING INTAKE OF JUNK FOOD CAN HELP REDUCE YOUR RISK OF TYPE 2 DIABETES
ANNEX 1

DIABETES MANAGEMENT PLAN

to be completed by parent or legal guardian

Child’s name ____________________________________________________________

Date of Birth __________________________________________________________________________

Mother’s Name _________________________________________________________________

Father’s Name _________________________________________________________________

Child’s age at time of diagnosis _________________________________________________

Contact phone numbers:
(list by order in which calls should be made, and note if it is a parent, friend, or caregiver and whether the number is home and or work. Also note if each person has legal authority to respond in an emergency situation.)

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Relationship</th>
<th>Location</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
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<tr>
<td>2.</td>
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</tr>
<tr>
<td>3.</td>
<td></td>
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</tr>
</tbody>
</table>

Primary Care Physician:

Name _______________________________ Phone _______________________________

Other Health Providers:

Name _______________________________ Phone _______________________________

Name _______________________________ Phone _______________________________
MONITORING:

Usual blood glucose monitoring times:

☐ Morning ☐ Mid-day
☐ Afternoon ☐ Night
☐ Other: ☐ Other:

Does your child have a preferred location for monitoring (classroom, school office, etc.)?

Goal range for blood glucose: Between   and   

Lows:
If below , please do the following:

Call parent if below:  (Tel:  )

Usual signs/symptoms of low blood glucose are:
HIGHS:

If above ________, please do the following:

__________________________________________________________

Blood glucose level at which to measure ketones: ________
Call parent if blood sugar is above: ________ (Tel: ________)
Usual signs/symptoms of high blood glucose are:

__________________________________________________________

Insulin:

Will daily insulin be needed in school? □ YES □ NO

If insulin is needed at any other time, please specify time, amount and circumstances for administering insulin:

__________________________________________________________

FOOD:

Will your child participate in school breakfast and/or school lunch? □ YES □ NO
If yes, will modifications to the regular menu be needed? □ YES □ NO

__________________________________________________________
**EXERCISE:**

What are your child’s favourite physical activities?

Will your child participate in school sports? ☑️ **YES** ☐ **NO**

**SELF-CARE:**

Please put an X in the box that best describes your child’s role:

<table>
<thead>
<tr>
<th>Task</th>
<th>Does it alone</th>
<th>Does it with supervision</th>
<th>Parents help</th>
<th>Parents do it</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricks finger</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Puts strip in monitor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reads monitor</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Records result</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusts food based on result</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusts insulin based on result</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knows which foods to limit</td>
<td></td>
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<tr>
<td>Can select kind and amount of food</td>
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</tr>
<tr>
<td>Helps plan meals</td>
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</tr>
<tr>
<td>Selects insulin injection site</td>
<td></td>
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<td></td>
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<tr>
<td>Prepares for injection, selects site</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Measures insulin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injects insulin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures ketones</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
PARTIES AND SPECIAL FOOD OR MEALS:

Do you wish to be contacted before each event? □ YES □ NO

Additional instructions for the school:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

EMERGENCIES:

What do you feel should be treated as an emergency?

________________________________________________________________________
________________________________________________________________________

What do you want the school to do in an emergency?

________________________________________________________________________
________________________________________________________________________

Other requests:

________________________________________________________________________
________________________________________________________________________

(Adapted on Recommendations for Management of Diabetes for Children in School – Vermont Department of Health)
ANNEX 2

GUIDELINES FOR MANAGEMENT OF CHILDREN WITH DIABETES IN SCHOOL

The following guidelines should be taken into consideration when dealing with diabetes in school. The daily routine of a child with diabetes includes: daily blood glucose monitoring and schedule of food, insulin and activities. Therefore, while at school, each child with diabetes must be allowed to:

- Do blood sugar checks.
- Treat hypoglycemia with emergency sugar.
- Inject insulin when necessary.
- Eat snacks when necessary.
- Eat lunch at an appropriate time and have enough time to finish the meal.
- Have free and unrestricted access to water and the bathroom.
- Participate fully in physical education (gym class) and other extracurricular activities, including field trips.

In addition:

- The extent of the student’s ability to participate in diabetes care should be agreed upon by the school personnel, the parent/guardian, and the health care team, as necessary.
- The ages at which children are able to perform self-care tasks are very individual and variable, and a child’s capabilities and willingness to provide self-care should be respected.

- Successful management of diabetes in school requires team work between child, parents/guardians, health care team and the school.

Tips to establish an effective management program for diabetes at school:

- Plan for communicating with parents and the student’s medical providers, agree emergency procedures and list phone numbers required.
- School policies and procedures for administering medications, and handling equipment such as meters and pumps should be developed.
- Specific actions for school personnel to perform in the management program should be agreed.
- A specific plan of action for handling high and low blood sugar episodes, including the appropriate treatment foods and medications to have available should be agreed.
- A list of any medications the student receives, noting which ones need to be taken during school hours should be documented.
## WHO DOES WHAT?

### PARENT/GUARDIAN
- Supply, equipment and medication necessary for the provision of health support services to students.
- Supply emergency contact numbers to address any expected situation that may arise.
- Supply information about the student’s meal/snack schedule.
- Keep the school informed of any changes in plan of care.

### SCHOOL STAFF
- Arrange a meeting with parents/guardian at the beginning of the year to complete the diabetes management plan.
- Liaise with parents to find out the routine of the child.
- Make sure they have contact numbers for parents/guardians.
- Agree when parents/guardians need to be contacted.
- Support the child with diabetes at school.
- Allow the child to undertake blood glucose monitoring at agreed times.
- Provide a safe place for a child to inject insulin.
- Familiarise themselves with the signs and symptoms of low and high blood sugar.
- Know how to cope with a child who has a low and high blood sugar.
- Ensure a child with low blood sugar is supervised and not left alone.
- Provide unlimited access to water and bathroom.

### STUDENT
- To tell the teacher when they are going low if possible.
- To tell the when they do not feel well.
- To do their blood sugar and insulin injection if able in accordance with the management plan.
- Bring their diabetes equipment to school.
- Carry with them fast acting carbohydrate in case of a low blood sugar.
SCHOOL ACTIVITIES WITH CHILDREN TO EXPLAIN DIABETES

GAMES

- Games with images (for instance: recompose the table “A day in the life of Tom living with type 1 diabetes” using images like a puzzle)
- Interactive online games: http://t1dstars.com/web/fun_and_games
- Comics: http://www.comiccompany.co.uk/?category=34&collection=252&code=764
RESOURCE WEBSITES

DIABETES MANAGEMENT PLAN IN SCHOOL CONSULTED FOR THE KIDS PACK:

- http://www.childrenwithdiabetes.com/d_0q_500.htm
- http://www.gnb.ca/0000/pol/e/704AH.pdf

Other Resource Websites:

- http://t1dstars.com/web/
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WHAT IS DIABETES?

* Type 1
* Type 2

information pack for parents of a child with diabetes
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The Canadian Diabetes Association supports the International Diabetes Federation’s KiDS pack to ensure the health and safety of children with diabetes and to help them be full and equal school participants without fear of exclusion, stigmatization or discrimination.

IDF gratefully acknowledges the support of Sanofi in this project.
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Introduction

☐ What is diabetes?
   A day in the life of Tom, living with type 1 diabetes.

☐ What is type 1 diabetes?

☐ Myths about diabetes

☐ As a parent, what do I need to communicate to the school staff?

☐ What do I need to know about low blood sugar?
   Causes, symptoms and how to cope with it.

☐ What to do if my child has low blood sugar

☐ What do I need to know about high blood sugar?
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☐ What to do if my child has high blood sugar

☐ What do I need to know about exercise and diabetes?

☐ What about extra curricular activities?

☐ Why is it important to choose a healthy lifestyle?

☐ How to stay healthy: eat well, move well

Annexes

☐ Diabetes management plan

☐ Guidelines for management of children with diabetes in school

☐ Resource websites
INTRODUCTION

In your school, children are learning about diabetes. This information pack has been prepared for you as a parent / guardian of a child with type 1 diabetes. It should guide you in making the school environment a better place for your child. This pack is not intended to replace the advice of your diabetes team.

The purpose of this pack is to:
- Help you engage with your child’s school in the daily management of their diabetes
- Provide you with guidelines for the management of diabetes at school
- Provide you with a suggested management plan to help you and the teacher best care for your child’s needs

Why a blue circle?
The icon was designed as a call to unite for diabetes and is a symbol of support for the UN Resolution on Diabetes. The colour blue represents the sky and it is the same colour as the flag of the United Nations.
WHAT IS DIABETES?

A day in the life of Tom, living with type 1 diabetes

GET UP, TOM!

HELLO, TOM! HOW DID YOU SLEEP? DO YOU WANT YOUR BREAKFAST?

Hi, Mom! By the way... have you checked your blood sugar?

Yawn

By the way... have you checked your blood sugar?

here is your insulin!

Thanks, Mom.

Click

AND NOW... BREAKFAST!

Cereals

...then get dressed...

Bye!

burp!
Hey, guys!
Hey, Tom!

10:30 AM

RRRRRR

Hey, Tom! Do you want to play football after lunch?
Sure!

Insulin before lunch

Diabetes Information Pack for Schools
A TOOLKIT TO INFORM ON DIABETES IN SCHOOLS
OK GUYS. IT'S TIME FOR YOUR SPORTS CLASS.

I'M COMING! I JUST NEED TO CHECK MY BLOOD SUGAR. I KNOW!

SLURP

IT WAS GREAT! SEE YOU TOMORROW!

YEAH
HEY MOM!

HI, TOM! DID YOU HAVE A GOOD DAY AT SCHOOL?

YEAH, YEAH! I’M STARVING!

HAVE AN APPLE!

NOW QUICK WITH THE HOMEWORK...

...SO I CAN SKATE MORE!

HA! YOU'RE JUST IN TIME FOR DINNER!

OK... LET'S SEE MY BLOOD SUGAR...

MY INSULIN NOW...

DINNER!

TIME FOR SOME DIGESTIVE TV!

LAST BLOOD SUGAR CHECK

TIME FOR BED, TOM! ALREADY?

A BIG GLASS OF MILK...
WHAT IS TYPE 1 DIABETES?

Type 1 diabetes is diagnosed when the pancreas stops making insulin completely. It is an autoimmune disease which means the body’s own immune system attacks the pancreas destroying the cells that make insulin. This results in the body being unable to control the amount of glucose in the blood.

Diabetes can develop in a child of any age, including infants and toddlers. Type 1 diabetes often develops quickly and may be life-threatening if not diagnosed early.
MYTHS ABOUT DIABETES?

Quiz true or false

TRUE OR FALSE:
Eating too much sugar causes diabetes

FALSE: When kids get type 1 diabetes, it’s because their bodies can’t make insulin anymore. It has nothing to do with eating too much sugar. When kids get type 2 diabetes there might be a connection because eating too much sugar (or foods with sugar, like candy or regular soda) can cause weight gain, and weight gain can lead to type 2 diabetes.

TRUE OR FALSE:
People with diabetes should not exercise

FALSE: Exercise is important for all children—with or without diabetes. Exercise has many benefits. It keeps kids healthy and fit, and also helps them balance their blood sugar.

TRUE OR FALSE:
You can catch diabetes from another person

FALSE: Diabetes is not contagious, so you can’t catch it from someone who has it.

TRUE OR FALSE:
Kids with diabetes can never eat sweets

FALSE: Kids with diabetes can eat sweets—as part of a balanced, healthy diet. Like everyone else, a person with diabetes shouldn’t eat too many sweets because they may cause damage to teeth and they don’t have many vitamins and minerals.
AS A PARENT WHAT DO I NEED TO COMMUNICATE TO THE SCHOOL STAFF?

**A CHILD WITH TYPE 1 DIABETES...**

- Sometimes can have a low blood sugar called a hypo which needs to be managed.

- Needs to inject insulin in a safe place and at prescribed times.

- Needs to do blood sugar checks regularly.

- Should eat their lunch at an appropriate time and have enough time to finish the meal.

- Should have free and unrestricted access to water and the bathroom.

- May need to eat snacks outside scheduled mealtimes.

- Can participate fully in physical education (gym class) and other extracurricular activities (including field trips, camps, visits, etc.).
WHAT DO I NEED TO KNOW ABOUT LOW BLOOD SUGAR?

Hypoglycaemia or low blood sugar

**CAUSES**

Low blood sugar may be caused by:

- Too much insulin on board.
- Too little carbohydrate.
- Unplanned exercise and activities.
- Missed or delayed meals/snacks.

**SYMPTOMS**

- Sweating
- Blurry vision
- Dizziness
- Anxiety
- Hunger
- Irritability
- Shakiness
- Fast heartbeat
- Headache
- Weakness
- Fatigue
WHAT TO DO IF A CHILD HAS LOW BLOOD SUGAR
How to cope with hypoglycaemia or low blood sugar

When a hypo does happen it is very important to act quickly:

Ask the child to check his/her blood sugar if he/she has a (gluco)meter.

Ensure that the child consumes a fast acting carbohydrate. (see next page)

Listen to the child, don’t ignore his/her needs or his/her friends worries.

FOLLOW WITH A SNACK OR MEAL IF DUE.

Be aware of the level of consciousness of the child. If the child is unconscious avoid putting food in the mouth of the child. Seek immediate medical attention.

Ensure that child is supervised during hypoglycaemia and until recovery.

Check blood glucose again after 15 minutes.
WHAT TO DO IF A CHILD HAS LOW BLOOD SUGAR

How to cope with hypoglycaemia or low blood sugar?

- Glucose Tablets (4-5)
- Fruit Juice (150-200ml)
- Honey (1 tablespoon)
- Sugary Drink (75-100ml)
- Jelly Beans (4-5)

Get the child to recheck his/her blood sugar in 10 – 15 minutes. If still low, repeat the treatment.
WHAT DO I NEED TO KNOW ABOUT HIGH BLOOD SUGAR?

Hyperglycaemia or high blood sugar

CAUSES

High blood sugar may be caused by:

- Too little insulin on board.
- Eating too much carbohydrate.
- Stress from an illness. (such as a cold or flu)
- Other stress/anxiety. (such as family conflicts or exams)

SYMPTOMS

- Very thirsty
- Need to urinate often
- Irritability
- Stomach pain
WHAT TO DO IF MY CHILD HAS HIGH BLOOD SUGAR?

How to cope with high blood sugar

A child with a high blood sugar level should be advised to:

- Drink plenty of water to keep hydrated.
- Check his/her blood sugar and repeat the blood sugar test level in about 2 hours.
- If his/her blood sugar level is very high (15 mmol/l or 270 mg/l) contact the school nurse or child parents so they can seek further advice.

Attention

When high blood sugar occurs over a number of days, it’s important to report it to your diabetes team.
WHAT DO I NEED TO KNOW ABOUT EXERCISE AND DIABETES?

Exercise is a key component of diabetes management. With few special considerations, a child with diabetes can fully participate in all athletic opportunities available in schools.

The duration and intensity of exercise will have an influence on blood glucose levels. To avoid low blood sugar episodes, a child with diabetes may need to eat an additional snack before, during and after exercising.

Children with diabetes need to carry their “hypo pack” with them at all times.

If a child has symptoms of low blood sugar or will be participating in more than 40-45 minutes of physical activity, blood glucose levels should be checked before exercising.
WHAT ABOUT EXTRA CURRICULAR ACTIVITIES?

I can participate in all after-school activities. My teacher should notify my parents as soon as possible and invite them to the planning stage of the activity especially if this involves an overnight.

I’ll bring with me:

- a diabetes pack with a meter, insulin and a sugar source.
- a fast-acting carbohydrate snack or drink in case of hypoglycaemia.
- extra snacks in case lunch is delayed or we get more exercise than usual.
- a bottle of water.

An overnight activity means I need to be able to inject my insulin or this needs to be arranged with my parents.
WHY IS IT IMPORTANT TO CHOOSE A HEALTHY LIFESTYLE?

TO PREVENT:

- OVERWEIGHT
- TIREDNESS
- FEELING SICK
- UNHEALTHY HEART
STAY HEALTHY: EAT WELL

There is a lot of evidence that lifestyle changes can help prevent the development of type 2 diabetes.

Try to remember these proportions in your daily meals.
STAY HEALTHY: MOVE WELL

A healthy diet is built on a base of regular physical activity, which keeps calories in balance and weight in check.

TIPS TO GET ACTIVE:

- Try sports and choose one you like
- Set regular times for activities; make it a part of your daily schedule
- Reduce use of screen time (TV, computers etc.) and play with friends
- Walk to school
- Take the stairs instead of an elevator
- Learn to use the skateboard, the bike or run instead of getting a ride
- Walk the dog with your parents
- Turn off your TV, smart phone or computer and spend some time to play with your friends
- Stay active: do a minimum of 30 minutes of exercise per day
- Exercise with a friend
ANNEX 1

DIABETES MANAGEMENT PLAN

to be completed by parent or legal guardian

Child’s name

Date of birth

Mother’s name

Father’s name

Child’s age at time of diagnosis

Contact phone numbers:
(list by order in which calls should be made, and note if it is a parent, friend, or caregiver and whether the number is home and or work. Also note if each person has legal authority to respond in an emergency situation.)

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Relationship</th>
<th>Location</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Primary care physician:

Name __________________________ Phone __________________________

Other health providers:

Name __________________________ Phone __________________________

Name __________________________ Phone __________________________
MONITORING:
Usual blood glucose monitoring times:

☐ Morning        ☐ Mid-day
☐ Afternoon      ☐ Night
☐ Other: ___________________________________________________________________

☐ Other: ___________________________________________________________________

Does your child have a preferred location for monitoring (classroom, health office, etc.)?

______________________________________________________________________________

Goal range for blood glucose: Between _______ and _______

LOWS:
If below _______, please do the following:

______________________________________________________________________________

______________________________________________________________________________

Call parent if below: ___________________ (Tel: ___________________)

Usual signs/symptoms of low blood glucose are:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
**HIGHs:**

If above __________, please do the following:

____________________________________________________________________________________

Blood glucose level at which to measure ketones: ________________________

Call parent if above: ______________________ (Tel: ______________________)

Usual signs/symptoms of high blood glucose are:

____________________________________________________________________________________

**Insulin:**

Will daily insulin be needed in school?  □ YES  □ NO

If insulin is needed at any other time, please specify time, amount and circumstances for administering insulin:

____________________________________________________________________________________

**FOOD:**

Will your child participate in school breakfast and/or school lunch?  □ YES  □ NO

If yes, will modifications to the regular menu be needed?  □ YES  □ NO  □ NO
**EXERCISE:**

What are your child’s favourite physical activities?

Will your child participate in school sports?  □ YES  □ NO

---

**SELF-CARE:**

Please put an X in the box that best describes your child’s role:

<table>
<thead>
<tr>
<th>Does it alone</th>
<th>Does it with supervision</th>
<th>Parents help</th>
<th>Parents do it</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricks finger</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Puts strip in monitor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reads monitor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Records result</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusts food based on result</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusts insulin based on result</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knows which foods to limit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can select kind and amount of food</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helps plan meals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selects insulin injection site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepares for injection, selects site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures insulin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injects insulin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures ketones</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PARTIES AND SPECIAL FOOD OR MEALS:

Do you wish to be contacted before each event? [ ] YES [ ] NO

Additional instructions for the school:

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

EMERGENCIES:

What do you feel should be treated as an emergency?
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

What do you want the school to do in an emergency?
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Other requests:
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

(Adapted on Recommendations for Management of Diabetes for Children in School – Vermont Department of Health)
The following guidelines should be taken into consideration when dealing with diabetes in school. The daily routine of a child with diabetes includes: daily blood glucose monitoring and schedule of food, insulin and activities. Therefore, while at school, each child with diabetes must be allowed to:

- Do blood sugar checks.
- Treat hypoglycemia with emergency sugar.
- Inject insulin when necessary.
- Eat snacks when necessary.
- Eat lunch at an appropriate time and have enough time to finish the meal.
- Have free and unrestricted access to water and the bathroom.
- Participate fully in physical education (gym class) and other extracurricular activities, including field trips.

In addition:

- The extent of the student’s ability to participate in diabetes care should be agreed upon by the school personnel, the parent/guardian, and the health care team, as necessary.
- The ages at which children are able to perform self-care tasks are very individual and variable, and a child’s capabilities and willingness to provide self-care should be respected.

Successful management of diabetes in school requires team work between child, parents/guardians, health care team and the school.

Tips to establish an effective management program for diabetes at school:

- Plan for communicating with parents and the student’s medical providers, agree emergency procedures and list phone numbers required.
- School policies and procedures for administering medications, and handling equipment such as meters and pumps should be developed.
- Specific actions for school personnel to perform in the management program should be agreed.
- A specific plan of action for handling high and low blood sugar episodes, including the appropriate treatment foods and medications to have available should be agreed.
- A list of any medications the student receives, noting which ones need to be taken during school hours should be documented.
WHO DOES WHAT?

**PARENT/GUARDIAN**
- Supply, equipment and medication necessary for the provision of health support services to students.
- Supply emergency contact numbers to address any expected situation that may arise.
- Supply Information about the student’s meal/snack schedule.
- Keep the school informed of any changes in plan of care.

**SCHOOL STAFF**
- Arrange a meeting with parents / guardian at the beginning of the year to complete the diabetes management plan.
- Liaise with parents to find out the routine of the child.
- Make sure they have contact numbers for parents / guardians.
- Agree when parents / guardians need to be contacted.
- Support the child with diabetes at school.
- Allow the child to undertake blood glucose monitoring at agreed times.
- Provide a safe place for a child to inject insulin.
- Familiarise themselves with the signs and symptoms of low and high blood sugar.
- Know how to cope with a child who has a low and high blood sugar.
- Ensure a child with low and high blood sugar is supervised and not left alone.
- Provide unlimited access to water and bathroom.

**STUDENT**
- To tell the teacher when they are going low if possible.
- To tell the when they do not feel well.
- To do their blood sugar and insulin injection if able in accordance with the management plan.
- Bring their diabetes equipment to school.
- Carry with them fast acting carbohydrate in case of a low blood sugar.
RESOURCE WEBSITES

- http://t1dstars.com/web/

DIABETES MANAGEMENT PLAN IN SCHOOL CONSULTED FOR THE KIDS PACK:

- http://www.childrenwithdiabetes.com/d_0q_500.htm
- http://www.gnb.ca/0000/pol/e/704AH.pdf
WHAT IS DIABETES?

* TYPE 1
* TYPE 2

A toolkit to inform on diabetes in schools
Acknowledgements:

This material has been developed in collaboration with the members of the KiDS Advisory Committee:

Monika Arora, Anne Belton, David Cavan, David Chaney, Daniela Chinnici, Stephen A. Greene, Agnès Magnen, Angie Middlehurst, Denise Reis Franco, Nikhil Tandon, Sara Webber.

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We would appreciate your feedback on pack usage and photos from your information sessions.

No fees will be asked for using this pack.

The Canadian Diabetes Association supports the International Diabetes Federation’s KiDS pack to ensure the health and safety of children with diabetes and to help them be full and equal school participants without fear of exclusion, stigmatization or discrimination.

IDF gratefully acknowledges the support of Sanofi in this project.
TABLE OF CONTENTS

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- What is diabetes?
  A day in the life of Tom, living with type 1 diabetes.
- What is type 1 diabetes?
- What is type 2 diabetes?
- Why do people need to prevent and take care of diabetes?
- Why is it important to choose a healthy lifestyle?
- How to stay healthy? Eat well, move well.
- Ressource website
INTRODUCTION

The following KiDS information pack will guide you in making the school environment a better place for children with diabetes. The pack is an awareness and information tool created to inform you about diabetes. This pack should be seen purely as an information resource.

This pack is not intended to replace the advice of the diabetes team.

Why a blue circle?
The icon was designed as a call to unite for diabetes and is a symbol of support for the UN Resolution on Diabetes. The colour blue represents the sky and it is the same colour as the flag of the United Nations.
WHAT IS DIABETES?
A day in life of Tom, living with type 1 diabetes

GET UP, TOM!

HELLO, TOM! HOW DID YOU SLEEP? DO YOU WANT YOUR BREAKFAST?

Hi, mom! By the way... have you checked your blood sugar?

Here is your insulin!

Tranks, mom.

Click!

AND NOW... BREAKFAST!

... then get dressed...

BURP!

BYE!
HEEY GUYS!

10:30 AM

RRRRRR

Hey, Tom! Do you want to play football after lunch?

SURE!

Insulin before lunch...
OK GUYS, IT’S TIME FOR YOUR SPORTS CLASS.

I’M COMING! I JUST NEED TO CHECK MY BLOOD SUGAR!

I KNOW!

SLURP!

IT WAS GREAT! SEE YOU TOMORROW!

YEAH!
HEY MOM!

HI, TOM! DID YOU HAVE A GOOD DAY AT SCHOOL?

YEAH, YEAH! I'M STARVING!

HAVE AN APPLE!

NOW QUICK WITH THE HOMEWORK...

...SO I CAN SKATE MORE!

HA! YOU'RE JUST IN TIME FOR DINNER!

OK... LET'S SEE MY BLOOD SUGAR...

MY INSULIN NOW...

DINNER!

TIME FOR SOME DIGESTIVE TV!!

LAST BLOOD SUGAR CHECK

TIME FOR BED, TOM!

ALREADY?

A BIG GLASS OF MILK...

The End

END
WHAT IS TYPE 1 DIABETES?

Type 1 diabetes is diagnosed when the pancreas stops making insulin completely. It is an autoimmune disease which means the body’s own immune system attacks the pancreas destroying the cells that make insulin. This results in the body being unable to control the amount of glucose in the blood.

Diabetes can develop in a child of any age, including infants and toddlers. Type 1 diabetes often develops quickly and may be life-threatening if not diagnosed early.
WHAT IS TYPE 2 DIABETES?

Type 2 diabetes is being diagnosed in children in a growing number of countries. In the United States, up to 1 in 3 new cases of type 2 diabetes, is diagnosed in youth younger than 18.

**Symptoms:**
Unlike type 1, in people with type 2 diabetes the symptoms are often mild or absent, making this type of diabetes hard to detect.

In general the most common signs are:

- **Weight Loss**
- **Very Thirsty**
- **Need to Urinate Often**
- **Weakness/Fatigue**

Type 2 diabetes is diagnosed when the body does not produce enough insulin to function properly, or the body’s cells don’t react to insulin. This is known as insulin resistance. If this happens, the body is unable to control the amount of glucose in the blood.
WHY DO PEOPLE NEED TO PREVENT & TAKE CARE OF DIABETES?

BECAUSE IT CAN LEAD TO:

- foot problems
- damage to the retina
- Kidney disease
WHY IS IT IMPORTANT TO CHOOSE A HEALTHY LIFESTYLE?

TO PREVENT:

OVERWEIGHT

TIREDNESS

FEELING SICK

UNHEALTHY HEART
HOW TO STAY HEALTHY?
EAT WELL

There is a lot of evidence that lifestyle changes can help prevent the development of type 2 diabetes.

THE EATWELL PLATE

33%

33%

12%

7%

15%

Try to remember these proportions in your daily meals.
HOW TO STAY HEALTHY?
MOVE WELL

A healthy diet is built on a base of regular physical activity, which keeps calories in balance and weight in check.

TIPS TO GET ACTIVE:
- Choose a sport you like
- Set regular times for activities; make it a part of your daily schedule
- Reduce use of screen time (TV, computers etc..) and play with friends
- Walk to school
- Take the stairs instead of an elevator
- Learn to use the skateboard, the bike or run instead of getting a ride
- Walk the dog with your parents

- Turn off your TV, smart phone or computer and spend some time to play with your friends
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**YAWN**

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**HI, MOM! BY THE WAY . . . HAVE YOU CHECKED YOUR BLOOD SUGAR?**

**HERE IS YOUR INSULIN!**

**THANKS, MOM.**

**CLICK**

**AND NOW... BREAKFAST!**

**CEREALS**

... THEN GET DRESSED ...

**BURP!**

**BYE!**
Hey, guys!

Hey, Tom!

10.30 AM

RRRRRRRRRR

Hey, Tom! Do you want to play football after lunch?

Sure!

Insulin before lunch

School
OK GUYS. IT'S TIME FOR YOUR SPORTS CLASS.

I'M COMING! I JUST NEED TO CHECK MY BLOOD SUGAR!

SLURP

IT WAS GREAT! SEE YOU TOMORROW!
Hey Mom!

Hi, Tom! Did you have a good day at school?

Yeah, yeah! I'm starving!

Have an apple!

Now quick with the homework...

...so I can skate more!

Ha! You're just in time for dinner!

OK... let's see my blood sugar...

My insulin now...

Dinner!

Time for some digestive TV!

Last blood sugar check

Time for bed, Tom! Already?

A big glass of milk...

The End
WHY IS IT IMPORTANT TO CHOOSE A HEALTHY LIFESTYLE?

TO PREVENT:

OVERWEIGHT

TIREDNESS

FEELING SICK

UNHEALTHY HEART
HOW TO STAY HEALTHY?

EAT WELL

How to choose healthy food?

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