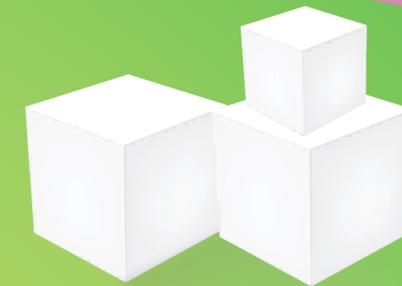
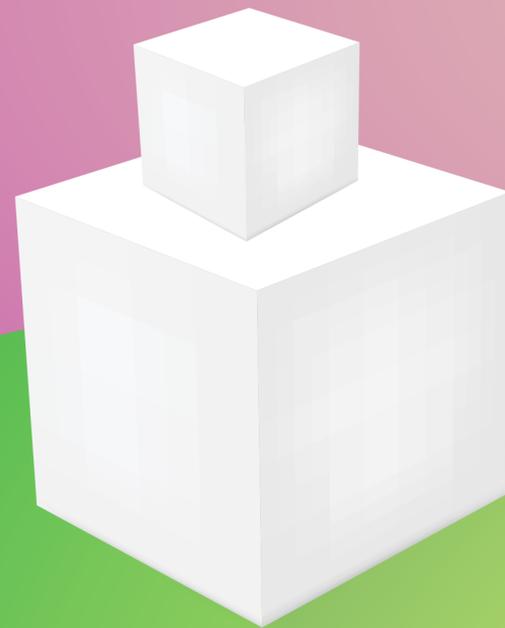


# The Story of Diabetes Kids

*Everything kids and their parents  
should know about diabetes*



Essential advice for people with diabetes from Roche Diabetes Care

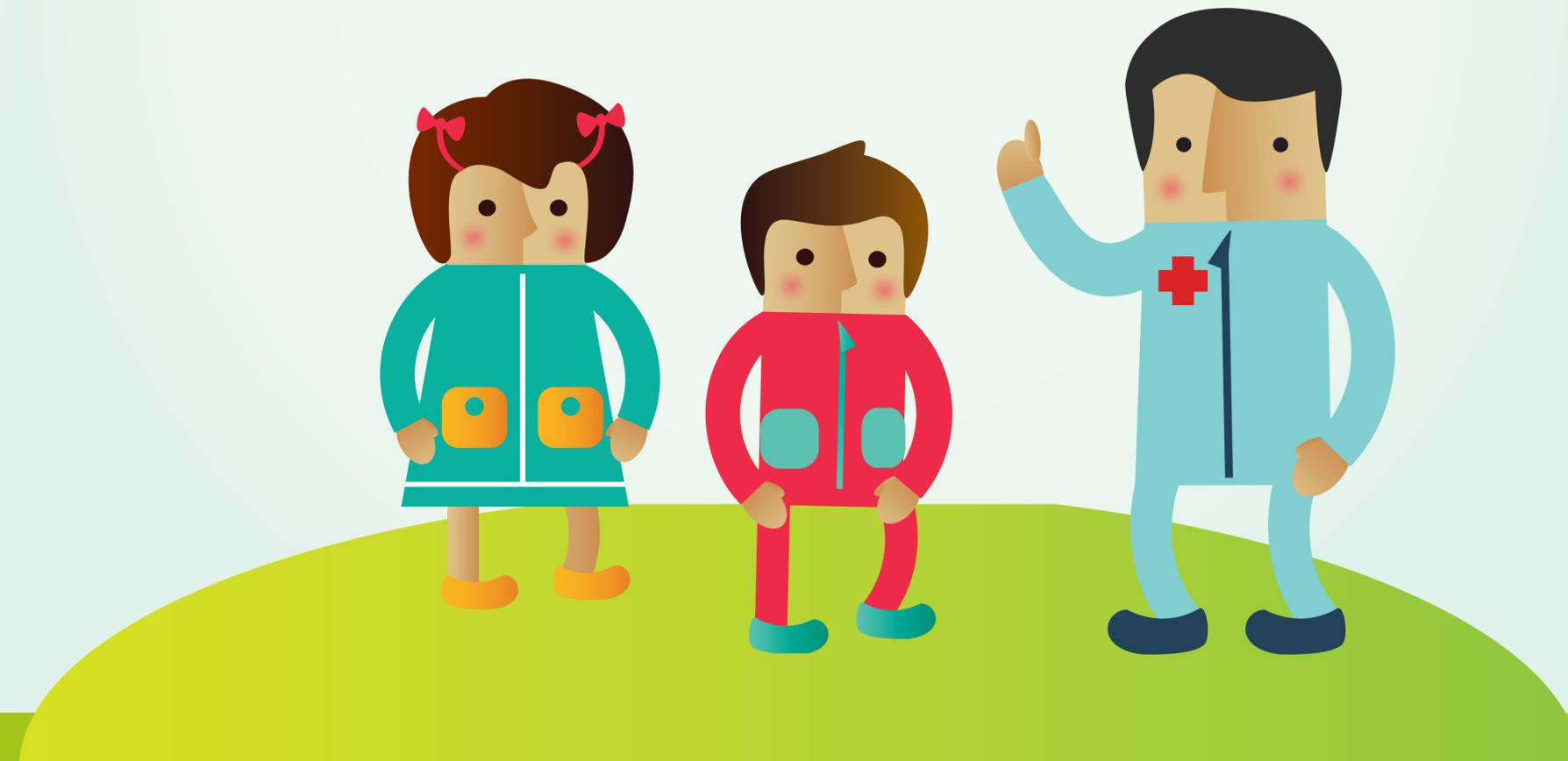
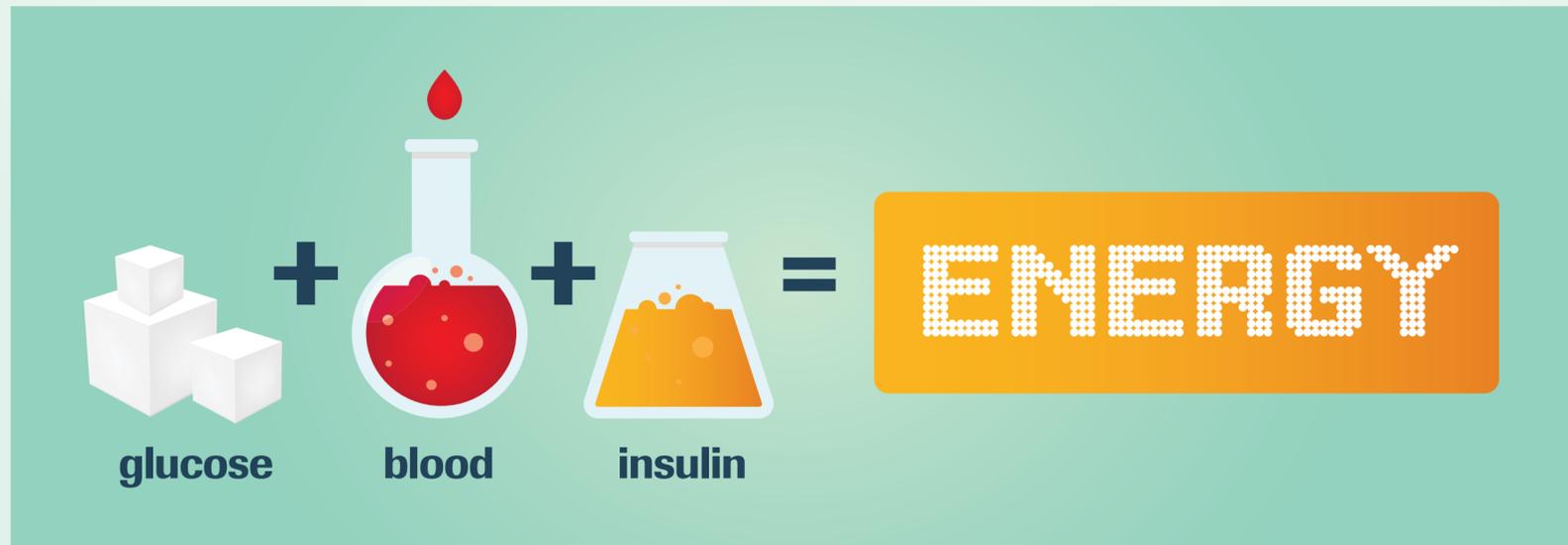
# What is Diabetes?

**Diabetes** is a condition when the body can't use glucose normally. When we eat foods with carbohydrates (e.g. bread, rice, potatoes, sugar, sweets), they are broken down into glucose (a type of sugar). Glucose is the main source of energy for our body's cells. To help glucose get into your cells, cells in your pancreas make insulin, which attaches to each cell and opens the door for glucose to enter. Once glucose is inside your cells, your body can use it for energy. When your body can't make enough insulin the levels of glucose in the blood rise.

Too much glucose in the blood makes people sick if they do not get treatment. In diabetes, the pancreas does not make enough insulin (Type 1 Diabetes) or the body can't respond normally to the insulin (Type 2 Diabetes).

In the case of type 1 diabetes, insulin through regular shots or an insulin pump will control blood glucose levels.

No one knows for sure what causes type 1 diabetes, but scientists think it has something to do with genes. Type 1 diabetes can't be prevented. Doctors can't even tell who will get it & who won't.



## How do you know if you have Diabetes?

## Living with Type 1 Diabetes

When people first have diabetes, they usually:



- Urinate a lot because the body tries to get rid of the extra sugar by passing it out of the body through the urine



- Drink a lot of water



- Eat a lot because the body is hungry for the energy it can't get from sugar



- Lose weight as the body starts to use fat & muscle for fuel because it can't use sugar normally



- Feel tired because the body can't use sugar for energy

Getting treatment for diabetes can stop these symptoms from happening. A doctor can do tests on a child's blood to find out if he or she has diabetes.

If you have type 1 diabetes you have to pay a little more attention to what you are eating and doing. Even though you have to do some special things, it will not keep you from doing the stuff you love. You can still play sports, go out with your friends, and go on trips. Let your friends know that even if you don't have the perfect pancreas, you can have a perfectly normal life.



## Can you take charge of your Diabetes?

### When you have diabetes you need to:

- Check your blood sugar levels often using a blood glucose meter.
- Give yourself insulin shots, or have someone help to give you shots, or use an insulin pump.
- Follow a healthy eating plan so you can keep blood sugar levels under control.
- Exercise regularly.
- Have regular checkups with doctors. Take extra care of your eyes, feet & teeth.

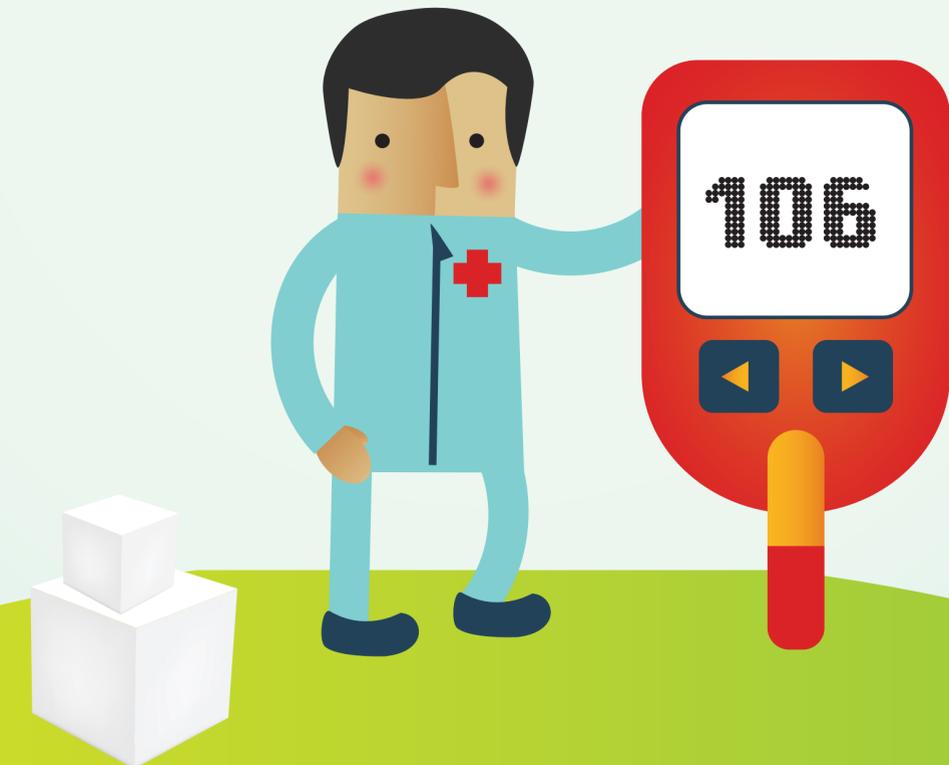
## Testing your blood glucose

Checking your blood sugar levels is a really important part of taking care of diabetes. **Why?** Because knowing what those levels are will help you keep your blood sugar under control.

**Your doctor will let you and your parents know when and how often you need to do your checks.**

### How does it work?

Blood sugar levels can be tested at home or at school using a blood glucose meter.



# Testing your blood glucose

## How to use a glucometer?

Take one drop of blood using a pricker a called lancing device and place the drop on a testing strip. The strip then goes into the glucometer and a few seconds later your blood glucose level will appear on the screen. Your doctor will tell you the normal levels.

## Tips for successful testing

1. Wash your hands and dry completely
2. Prick the side of your finger
3. Lightly squeeze your finger and hold your hand down below your waist for about 5 seconds

Checking blood sugar levels is kind of like poking yourself with a pin. You'll feel a pinch, but it's over quickly. The new lancing devices are much better & less painful.

## What's next?

Keep a diary to keep track of your blood glucose levels. This could be done by writing them down in a special notebook or using an electronic logbook or a diabetes management app. The more information you have about your blood glucose patterns during the day, the easier it is to keep your blood sugar levels under control. And when they're under control, diabetes isn't controlling you – **you're controlling it!**



## What happens if you have low blood sugar?

Low blood sugar is called **HYPOGLYCEMIA**. It needs to be treated right away. **Why?** Because sugar is the main source of fuel for the brain, hypo is dangerous.

Situations that can make low blood sugar more likely to happen:

- Skipping meals and snacks or not eating enough
- Playing or exercising hard without eating something extra
- Getting too much insulin
- Not timing the insulin doses properly with meals, snacks, & exercise

## What do you feel and what you to do when you are in hypo?

	Mild	Moderate	Severe
Symptoms	Headache, sleepy, sweaty, dizzy.	Confused, weak, blurry vision, irritated.	Lose consciousness and unable to swallow any food or drinks, you may have a seizure.
What to do	Take glucose drinks or food like orange juice or cube of sugar or glucose gels. Always tell a parent or adult when this happens.	You may be unable to help yourself. Another person that knows about your diabetes may need to give you glucose. You should always tell parents or adult.	You may be given a special injection called glucagon by an adult such as your parent or nurse who knows how to do this.
Follow-up action	Wait 10 minutes and re-check blood glucose & repeat above treatment. if this doesn't work.	Keep checking your blood glucose until back to normal range.	The doctor or ambulance may need to be contacted if the symptoms of severe hypo do not improve.



Remember, the earlier the signs are recognized the easier it is to treat. If in doubt check your blood glucose levels.

# What happens when your blood sugar is too high?

**HYPERGLYCEMIA** is the medical word for blood sugar levels above than normal levels.

If you have high blood sugar levels, you may need treatment to lower your blood sugar depending on the agreed target levels. Sometimes your insulin therapy may need to be adjusted to prevent future hyperglycemia.

## What to look for?

Feeling thirsty / Peeing too much / Feeling tired / Tummy pain / Mood changes / Loss of concentration

## Ketoacidosis

Someone who has high blood sugar can develop a serious problem with a serious-sounding name: **Diabetic Ketoacidosis (DKA)**. This happens if the body gets desperate for a source of fuel. The body wants to use glucose, but without insulin the glucose stays stuck in the blood and is not available to the cells – so the body uses fat instead. When the body uses fat, chemicals called ketones are produced. These ketones get into a person's blood & urine (pee) and they can make a person very sick.

## Symptoms of DKA

Dry skin / Belly pain / Nausea or throwing up / Fruity-smelling breath / Trouble breathing / Confusion

When DKA is suspected, you should test your blood sugar and your urine ketone levels.

## What causes it:

Not enough insulin / infection or illness / less exercise than usual / eating or drinking too much carbohydrates / sudden excitement or stress

## How is DKA treated?

DKA can be treated but you must contact your doctor if:

- You're vomiting and unable to tolerate food or liquid.
- Your blood sugar level is higher than your target range and doesn't respond to home treatment.
- Your urine ketone level is moderate or high.

To feel better, a person with DKA needs to get insulin & fluids through a tube that goes into a vein in the body.

# Diabetes at school

At school you should be able to join all of your normal activities including going on school trips.

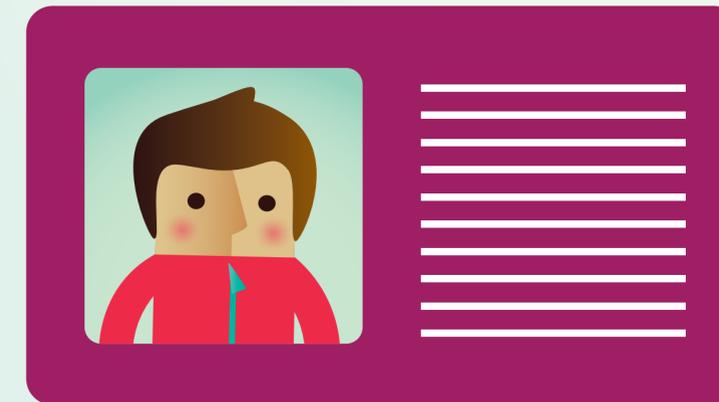
The best way to get started is for your mom or dad to meet with teachers to talk about your diabetes management plan including your medication, testing times and possible complications that may occur.

For example, your teachers will know the times when you may have to eat in class in case you are having a hypo event.

Of course, you'll need to do your part to take care of yourself at school.

## Useful tips when at school:

- 1. Be prepared.** Pack your diabetes stuff, know your medication schedule, have your testing supplies, manage your meals and anything else your doctor recommends.



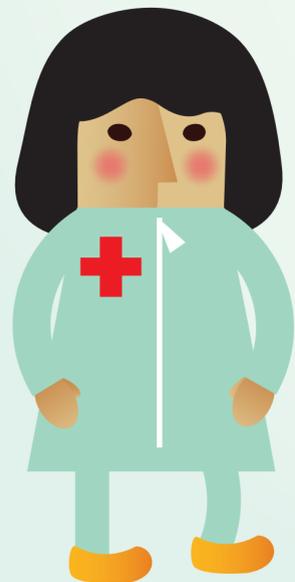
- 2. Make sure** you have your identification necklace, bracelet or card.

# Diabetes at school

- 3. Speakup.** Sometimes while in class you'll be in a situation that's hard to interrupt (like taking a test). When you can, let your teacher know in advance that you'll need to step out. If a new teacher or coach doesn't know about your diabetes, tell the person or have your mom or dad write a note.



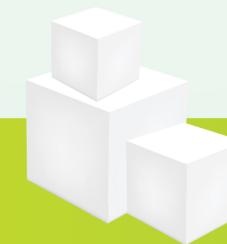
- 5. Keep your parents informed.** Let your parents know about any changes, problems, or issues that you noticed during the day at school. They might decide to call your doctor about it.



- 4. Know what to do if you have a problem.** Find out who can help you if you have a question or health emergency whether it's the school nurse, teacher or anyone else that knows about your situation. Know what's urgent and what can be managed later at home.



- 6. Plan your meals.** Some days you may be more active than others. Also, exam stress may affect your sugar and you may need to take more insulin. Plan your meals accordingly.



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2. Wood J, Peters A. Type 1 Diabetes Self-Care Manual [Internet]. American Diabetes Association. 2018 [cited 2021 Mar 17]. Available from: <http://main.diabetes.org/dorg/PDFs/living-with-diabetes/T1DSelfCareManual.pdf>

*For more information please contact your healthcare professional.*

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