

diabetes education
for children



**MEET
PETE THE
PANCREAS**



Contact details

Hospital: _____

Phone: _____

Doctor: _____

Phone: _____

Other useful numbers

Diabetes Nurse Specialist: _____

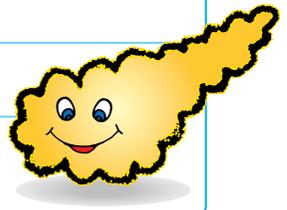
Diabetes clinic appointments: _____

Out of hours contact no.: _____

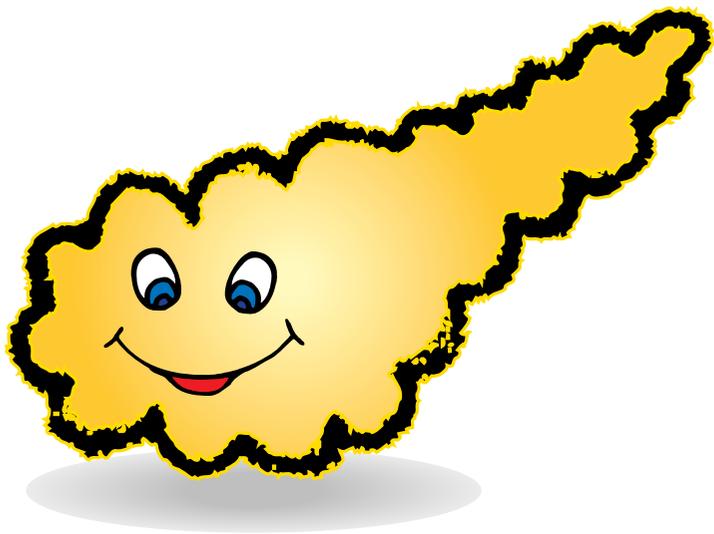
Dietician: _____

Family doctor: _____

Other: _____



A booklet for children with type 1 diabetes



Acknowledgements

Novo Nordisk would like to thank the health care professionals who have been instrumental in developing these booklets:

Temple Street Children's University Hospital

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Laura Andrews

Aisling Egan

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Also:

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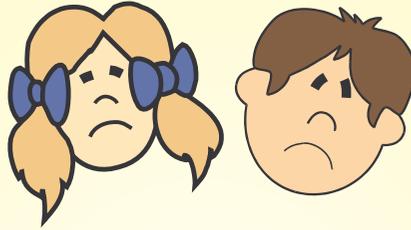
Maura Bradley, Children's Diabetes Unit, Cork University Hospital

Norma O'Toole, Children's Diabetes Unit, Cork University Hospital

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Not feeling well!

You have not been feeling well.

You probably have:

- Felt thirsty
- Felt hungry
- Needed to go to the toilet a lot
- Lost some weight
- Been tired a lot of the time.

The doctors have found that
you have diabetes.

Your diabetes team

You have probably been in hospital
for a few days

You will have met your diabetes team:

Doctors - Nurses - Dieticians

and other people who will start to
teach you all about your diabetes

When you and your family know
how to care for your diabetes,
you will be able to go home

Your diabetes team will support you when
you go home and every few months you will
come back to the hospital for a daytime visit
to see how you are getting on.



What is diabetes?



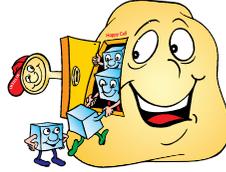
Your body is made up of tiny,
tiny bits called CELLS



These cells need GLUCOSE (sugar)
to give them ENERGY - so you can
feel good and do things!



You get glucose (sugar) from
the FOOD you eat



INSULIN is a hormone in your body that acts like a KEY to open the cells and let the glucose in



Insulin is made in a part of your body called your PANCREAS

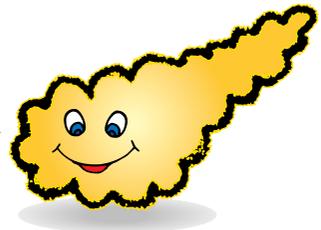


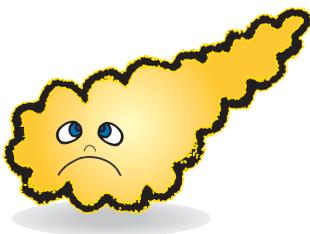
Your pancreas is an organ (like your heart) and it lives near your tummy



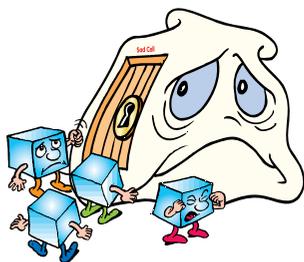
We like to call him PETE!

'Hi, I'm Pete - my job is to make insulin!'





When you have diabetes,
Pete can't make any insulin



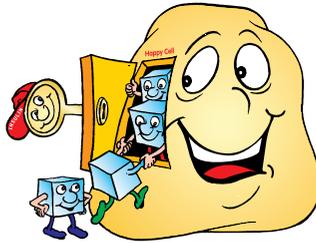
Without the insulin key, glucose from your
food can't get into your cells. Your cells
will feel sad because they have no energy



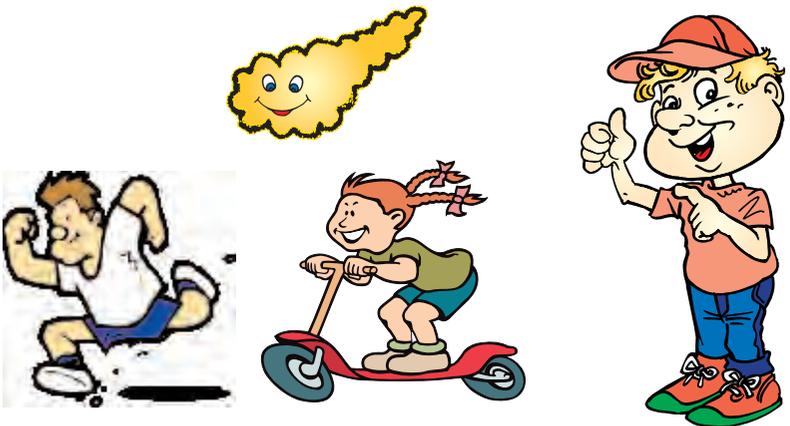
All the glucose from your food
will stay in your blood and
make you feel unwell.



When you have diabetes, you need to inject insulin to make Pete and all your cells happy again



Then you will feel well and have energy to play!



**Pete the
Pancreas
in my body!**



- Where does all the food go?
- What food did you eat today and did it have a lot of sugar?
- What colour do you think your insides are?

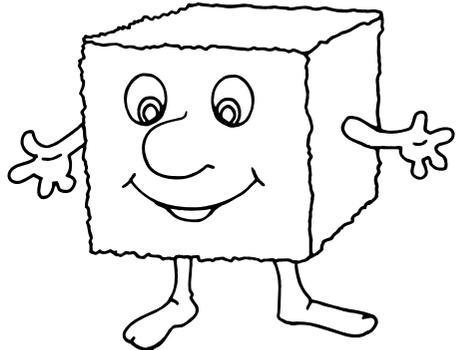
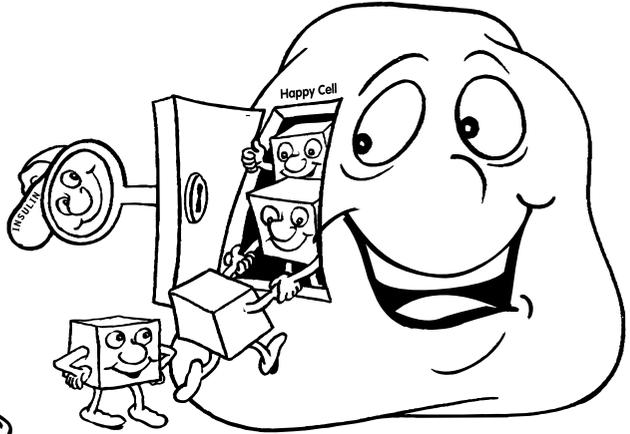
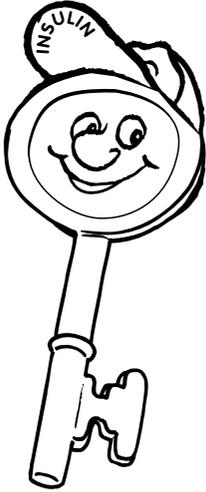
Colour
me in



- Try colouring in Pete and the other parts of your body.



Colour me in



So what do YOU have to do?

You need to check how much glucose is in your blood around 5-7 times a day



Learn how to use new monitors and equipment



Take insulin injections / use an insulin pump



Learn about what foods have less sugar, and eat regular meals and snacks every day



Soon your family and especially YOU will be an expert with your own diabetes.



Blood glucose (or sugar) levels

When you have diabetes, people talk a lot about your BLOOD GLUCOSE or BLOOD SUGAR LEVEL

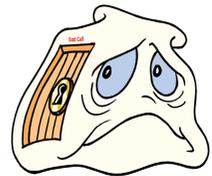


•
This means how much glucose is in your blood

•
You will need to check this at least 5 to 7 times a day

•
If there is a lot of glucose in your blood, that means there isn't enough insulin in your body

•
Your cells will be sad and you will feel unwell



•
Your doctor or nurse will show you how to check your blood glucose level

•
It's easy - just a little finger prick test!

Checking your blood glucose level



1

Wash your hands and dry well



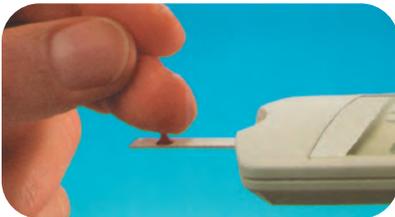
2

Get your meter ready



3

Prick your finger at the side



4

Put a drop of blood on to the strip in your meter



5

Write the numbers into your diary so you can show your diabetes team at your next visit!



Insulin - your special KEY

Insulin is the KEY that opens the door of your cells to allow the glucose in



•
This glucose gives you ENERGY!

•
When you have diabetes, you will need to inject insulin every day

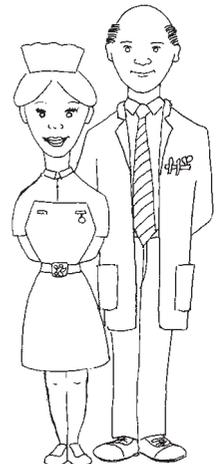
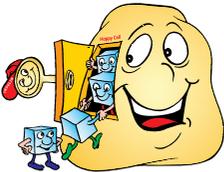
•
Your insulin may come in:

- A syringe

- A pen device

- Or in a pump, which you leave in all the time

•
Your doctor or nurse will show you and your parents how to inject your insulin.



Injecting your insulin



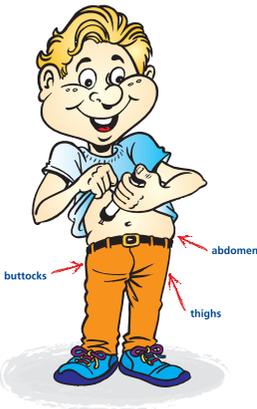
1

Wash your hands and dry well



2

Get your injection ready



3

Pick your injection site

4

Give your insulin



5

Put your used needle in the sharps bin.

What is a HYPO?

(Hypoglycaemia)

How do you know you're having a hypo?

A hypo is when your blood glucose level falls too low.
A hypo is normally a blood glucose level less than 4.0.
Your doctor or nurse will tell you what is too low for you.



You may:

- Be pale
- Feel sweaty
- Be hungry
- Have 'wobbly legs'
- Be shivery or shaky
- Feel tired and drowsy
- Have blurred vision
- Feel worried or afraid
- Just feel funny!

Or sometimes you may not have any of these feelings.

If you are having a HYPO

(blood glucose level less than 4.0 as advised
by your doctor or nurse)

what must you do?

- 1 Tell somebody straight away - mum, dad or a nearby adult
- 2 Check blood glucose with a finger stick
- 3 Eat or drink something sugary,

FOR EXAMPLE:

Glucose sweets or Glucogel* OR

A sugary drink - 7UP*, Fanta*, Coke*
or juice (**not a diet drink**)

OR

Some other kind of sugar - jam, honey

PLUS

Eat a snack (biscuits, bread - check
with mum or dad).

- 4 Re-check your blood glucose levels in 15 minutes
- 5 If your blood glucose level is still low - drink some more sugary drink and have another snack
- 6 If you still feel unwell, tell the adult looking after you.

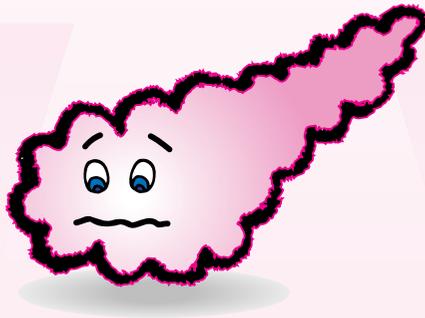


What is a HIGH?

(Hyperglycaemia)

How do you know you are high?

This is when your blood glucose level is more than 14



How might you be feeling?

Flushed

Not well

Thirsty

Going to the toilet a lot

Grumpy

Tummy pains

Off form

No energy

BUT it is important to remember you may also feel normal!

When you are HIGH

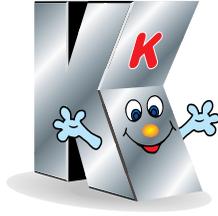
(blood glucose level more than 14)

what must you do?

- 1 Tell mum or dad or a nearby adult straight away
- 2 Wash your hands and dry well
- 3 Recheck your blood glucose level
- 4 **Check for ketones**
- 5 Think - did you eat any extra sugary food?
- 6 Remember - did you take your insulin?
- 7 Drink plenty of water/fluids
- 8 If your blood glucose level stays high, or if you have ketones, you need to tell the adult looking after you



Ketones



Ketones are waste products



They are found in your blood and urine



They make you feel ill



You get ketones in your body when you do not have enough insulin

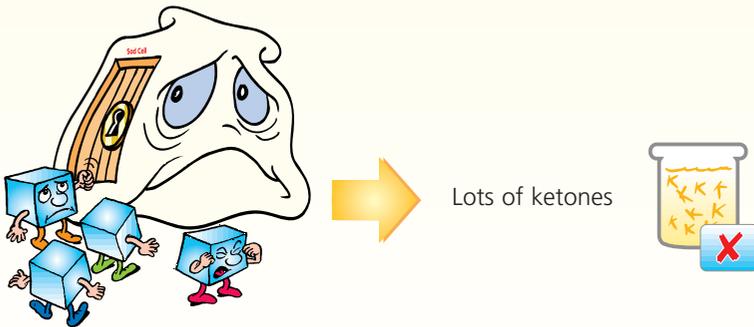


Your doctor or nurse will show you how to check for them.

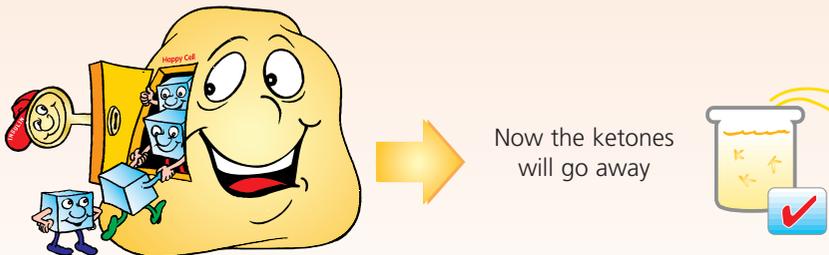
You should always check for ketones when:

- 1.** Your blood glucose level is 14 or more
- 2.** If you are sick or vomiting (even if your blood glucose level is normal)
- 3.** If you have ketones always tell the adult who is looking after you.

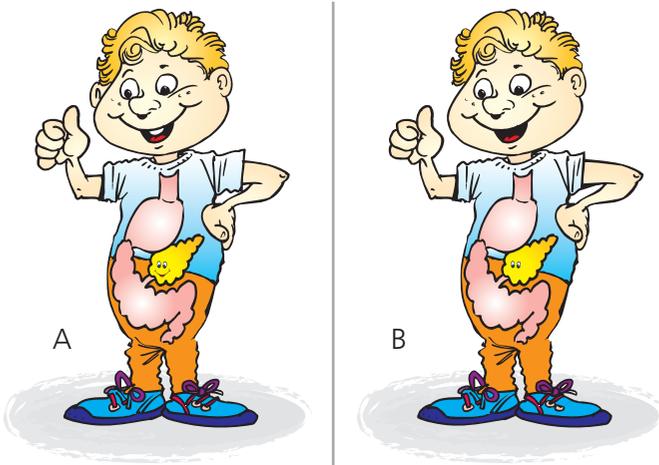
If you have a lot of ketones in your blood or urine it means your cells are not happy



When you take more insulin, it will open the door to your cells, allowing glucose to enter, and your cells will be happy again



Spot the difference



there are 6 differences between picture A and B. Can you spot them?

Word Puzzle

B	F	X	F	X	J	P	B	W	P	M	Z	O	D	Q	C	F	B	Q	R
W	L	Y	X	Q	X	R	W	X	Y	Z	B	B	P	S	B	Z	K	B	X
B	X	O	Q	V	W	M	S	I	C	K	D	A	Y	X	Z	T	I	P	B
Z	T	R	O	X	M	Q	V	X	T	E	Q	K	W	E	Q	B	K	A	Q
B	G	K	B	D	X	E	X	S	W	T	B	A	B	Z	A	X	B	N	V
Q	K	B	K	D	S	B	Q	Z	P	O	W	X	P	X	W	Z	K	C	Z
W	B	Z	B	X	P	U	B	P	E	N	B	R	B	V	G	H	F	R	L
B	Z	D	Q	B	W	B	G	B	A	E	W	D	I	A	B	E	T	E	S
Q	B	P	D	Z	I	T	B	A	B	S	A	B	W	D	Z	B	W	A	H
B	K	X	B	W	J	H	B	J	R	B	E	O	Z	B	H	Z	B	S	N
P	I	N	S	U	L	I	N	L	B	L	R	N	X	Q	Y	B	A	X	Q
K	L	J	X	Z	B	G	W	B	Q	B	E	K	B	X	P	X	B	K	L
B	W	Z	J	K	W	H	B	X	Z	K	B	V	K	T	O	B	E	P	W
W	B	H	X	V	Z	W	X	K	W	X	W	B	E	B	W	I	D	X	B
Z	W	Y	W	B	C	X	W	R	Z	H	Q	S	B	L	K	P	U	B	S
A	R	Z	X	W	K	P	U	B	Q	G	B	W	P	B	S	Y	P	T	X

The following are hidden in the word puzzle. Can you find all 8?

1. KETONES
2. BLOOD SUGAR LEVELS
3. INSULIN
4. PANCREAS
5. DIABETES
6. HYPO
7. HIGH
8. SICK DAY

Sick days



What do you do when you are sick?

Tell mum, dad or a nearby adult straight away

NEVER stop taking your insulin.

- Check your blood glucose level every 2 hours
- Check for ketones each time you check your blood glucose level
- You need to drink lots of extra fluids, at least one glass of water every hour
- If you cannot eat, you can have sugary drinks instead of food - e.g. 7UP*, Fanta* or juice (not diet drinks) but check with mum or dad how much you should take.

If you are worried or unsure about anything, tell mum, dad or a nearby adult and they can contact your family doctor or the diabetes team at the hospital.

What will having diabetes mean to your life?

LIFE AS NORMAL.

The only new thing is, now you must look after your diabetes as well.



This means:

- Testing your blood glucose levels every day
- Watching what you eat - you must eat regular meals and snacks every day
- Exercising as normal
- Learning about 'carbohydrate counting' with your dietician
- Injecting insulin as your doctor or nurse tell you to
- Regular visits to the doctor, nurse and dietician
- Your parents will tell your teacher and sports coach
- It is good to tell your friends that you have diabetes too
- Watching out for HIGHS and HYPOS
- Carrying or wearing some identification (a bracelet, chain or disc) to say you have diabetes.



School

Your mum or dad will tell your teacher
about your diabetes

You may want to tell your
school friends too

They can tell your teacher or another grown up if
you are not well

Your mum or dad will tell your teacher about
what you need to eat at break times

If you become sick you need to tell
your teacher immediately

When you are going on a school trip,
your mum or dad will organise your food
and insulin for the time you will be away

If you are at all worried about
anything in school, even if it seems
small, tell your mum or dad so they
can talk to your teacher.



Play and sports

When you run around a lot you use
a lot of energy

This means you also use up a lot of glucose

It is important to make sure you
measure your blood glucose levels
and eat enough food when you are
using extra energy!

Exercise is very important
to keep your body healthy

It is also fun!



Friends

You may want to tell your friends that
you have diabetes

If you are visiting their houses,
your mum or dad will tell their parents too

You need to tell your friend's parents
if you are feeling ill

Your mum or dad will tell your friend's parents
about what you should eat and
what to do if you feel sick

Perhaps to explain
diabetes to your
friends you could
show them this book!



Your Questions and Answers:



Did I catch diabetes?

No, it is not caused by anything you have done or not done. Some children just get diabetes.

Do many children have diabetes?

About 3,000 children in Ireland have diabetes - just like you!

I ate a lot of sweets before I got diabetes.

Did this cause diabetes?

No, eating sweets will not give you type 1 diabetes - the type you have.

Who is to blame for having diabetes?

It is nobody's fault that you have diabetes.

Is there a tablet available to treat type 1 diabetes?

No, not yet.

I am extra hungry since coming home from hospital, is this normal?

Yes, this is because insulin increases your hunger. You may have lost some weight and now your body wants to get it all back.

Will I grow out of diabetes?

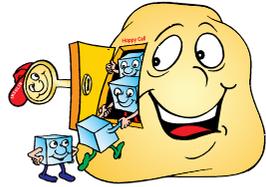
No, you will always have diabetes, but lots of research is happening to find a cure!

Can I play sports?

With diabetes you can lead a normal healthy life and if you play sports this will help control your blood glucose levels.

Important things to remember!

Cells: are what we call the tiniest parts of your body that make up all the bigger parts. They need insulin to make them healthy.



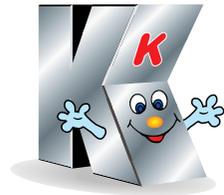
Insulin: is a hormone that is made in Pete the Pancreas and this is the KEY to allow glucose into your cells.



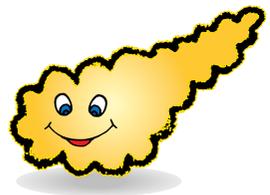
Glucose: sugar - this is what you measure in your blood when you do a finger prick test. It comes from the food you eat.



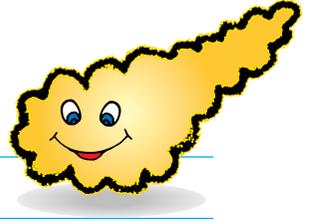
Ketones: these are waste products which are made when your body uses fat for energy instead of glucose. You measure for ketones in your urine and blood.



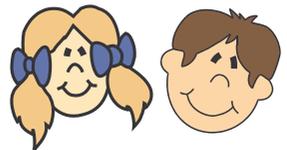
Pancreas: Your pancreas is an organ in your body whose job is to make insulin. We like to call him Pete!



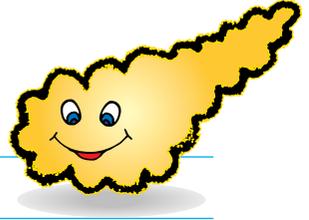
NOTES:



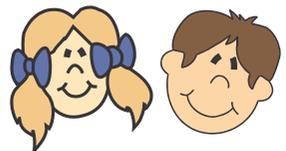
A series of horizontal blue lines for writing notes, starting from the first line below the cloud and extending down to the second line above the children's faces.



NOTES:



A series of horizontal blue lines for writing notes, starting from the top and extending down the page.





changing the future of diabetes

Now that you have been diagnosed with diabetes it means that you will have to make a few changes to your everyday life.

At Novo Nordisk we have worked with children with diabetes for many years and we understand that it can sometimes be a bit difficult.

We want to make it easier for you by making looking after your diabetes as simple as possible.

Then all you have to do is get on and enjoy your life!



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