



Parents' Bulletin

May 2010

Summer Holidays

Your Questions Answered

Thank goodness that the cold weather is nearly over and the summer is fast approaching and some of you will be thinking about getting away. No matter where your holiday destination takes you, travelling with diabetes can lead to all sorts of questions. In this issue we will try to answer some of these questions and give you other tips that may help.

- Will I get the needles and insulin on the plane?
- What happens if the insulin gets warm?
- How much insulin should we take away with us?
- How can I keep the insulin cool?
- Do I need special travel insurance?

Free Leaflets available from IDDT.

For copies of 'Looking After Your Insulin' and 'Holiday Tips' e-mail bev@iddtinternational.org, visit our new website www.iddtinternational.org or call Bev on 01604 622837.

Well Done to Linzi and her School

Linzi at aged 12 is one of our younger members and was diagnosed a year ago. Linzi is getting a big thank you from IDDT for doing a brilliant

job of helping her school understand more about Type 1 diabetes.

Linzi gave a presentation to her class explaining all about diabetes and the class enjoyed it so much that her teacher asked her to get the class involved in an activity session on diabetes. Linzi was thrilled to be asked and worked hard on thinking of ideas that would help her class understand more about diabetes. Linzi decided to explain all about hypos and hypers and carbohydrate counting. Then she put her class mates in pairs to see how they got on counting carbohydrates for a day and working out how much carbohydrate was in each meal.

The whole class rose to the challenge and this project helped them to realise that living with diabetes was not as easy as they thought.

Linzi has asked if she could say a few words.

"I am Linzi and have had diabetes for a year now. I did a science lesson all about diabetes and got my class involved! It was absolutely amazing and I would like to say thank you to my teacher, Miss Murdoch, for letting me do all of this and to Earl and Tyler, for helping me with this presentation and my science class, who have been so wonderful to me and have been there for me! You all had great blood sugars guys!!!"

I know from my own experience that balancing school and diabetes can sometimes be tricky and getting people to understand you and your diabetes can be even harder. I have huge admiration for Linzi for having the confidence and for taking the time to do such a good job in helping her school understand.

Linzi would like to thank several people for being a great support to her over the past year her amazing teacher Miss Murdoch, her friends Earl, Tyler and Callum, her Diabetes Team and of course, her wonderful family Mum Joanne, Dad Gary, sisters Abbi and Chloe and brother Matty.

Well done Linzi and keep up the good work with your carbohydrate

counting.

Changes In The Position Of Conventional Insulin Pumps

The January 2010 issue of the Journal of Diabetes Science and Technology published a study which concluded that changing the height of a conventional insulin pump in relation to its tubing and infusion set can significantly impact expected insulin delivery rates. Such changes can occur during routine daily activities like dressing, sleeping or showering.

There was a pronounced siphon or hydrostatic pressure action effect in conventional subcutaneous insulin pumps which caused significant fluctuations in the accuracy of insulin delivery rates when the pump position was moved higher or lower relative to its tubing and infusion site. The researchers commented that this unintended fluctuation in insulin delivery, which may arise from pump movement during normal daily use, can increase blood glucose variability, a risk factor for the progression of complications of diabetes. The effect of hydrostatic pressure was most significant at low basal rates and therefore these findings may be particularly important for children using pump therapy because they often use pumps at low basal rates.

The conventional pumps tested were MiniMed 512 & 515, which uses 110 cm tubing and the Deltec Cozmo 1700, which uses 80 cm tubing and they were compared with the OmniPod tube free pump. The OmniPod was least affected by pump orientation and direction. [The study was supported by a grant from the manufacturers of the OmniPod.]

Just To Remind You Again

New HbA1c units

The HbA1c will be reported in units of 'mmols per mol' or 'mmols/mol' and not as a percentage figure. HbA1c results in the UK are being given in both percentage and mmol/mol to give everyone time to get used to the new units but from April 1st 2011, they will only be reported in the new units, mmol/mol.

The relationship between the old HbA1c and the new measurements will be:

| Old HbA1c [%] | New HbA1c [mmol/mol] |
|---------------|----------------------|
| 6.0 | 42 |
| 6.5 | 48 |
| 7.0 | 53 |
| 7.5 | 59 |
| 8.0 | 64 |
| 9.0 | 75 |

* So if you are aiming for HbA1c targets of 6.5% and 7.5%, the new units will be 48mmol/mol and 59mmol/mol.

* Normal blood glucose [in someone without diabetes] is 4 - 6% but in the new units it will be 20 - 42mmol/mol.

The importance of knowing the difference between Type 1 diabetes and Type 2 diabetes

From a concerned Mum...

Thanks to all concerned at IDDT for the very informative and interesting newsletter. In response to the Year 6 Lesson Plan I would be grateful

if you could forward me a copy now it is launched.

I am sure that schools will welcome this Plan, and if they don't they should!!

I remember a year ago, when Polly was in Year 5, the school received a visit from a group of local medical students, this was, I think, as part of a PSHE lesson. Unfortunately, I was not informed of the visit and as a result the medical students told the whole of the school that if they eat too much sugary food they will end up with diabetes!!!!

Well you can imagine how Polly felt, as many children at school know Polly has diabetes, it was then assumed that Polly had been diagnosed with diabetes due to the reasons given in this rash and irresponsible statement made by the medical students - too many sweets!

After some strong communication, to both the medical school and Polly's school, it was suggested that the students re-visited the school to put the record straight! This I declined and decided to seek advice and help from Polly's then Diabetes Nurse, who was very helpful and made arrangements at the school to see both the teachers and the children to explain properly about the differences between Type 1 and Type 2 diabetes and also showed a video. I cannot say that making the appointments was easy as I got the feeling that trying to pin the school down to make the appointments was slightly hindered.

What I also find strange at Polly's school, is that even if I give my authority, they will never disclose to any visitors of the school that Polly has Type 1 diabetes to assist such visitors as medical students and the group of people who recently visited the school to undertake the national height and weight measurements of all school children. I have stressed to the school that some people visiting the school should really know that Polly has Type 1 diabetes. I do wonder that if the people who weighed and measured all the children at Polly's school recently (as part of a Government recommendation) had known that Polly is Type 1 diabetic we might not have received the

very impersonal letter advising me that Polly was 2kg overweight and in danger of becoming 'Diabetic Type 2!'

From seeing the news this morning and also talking to a friend of mine, it seems I am not the only parent questioning the outcome and method and content of communication this national data collection is undertaking, to put it mildly!!! I wonder if this has become a bit of a sore point with any other parents of children with Type 1 diabetes?

Thank you for your time in reading this and all the best to all at IDDT and thank you for all the great work you and the team do.

Summer Holidays Your Questions Answered

This summer may be the first time you have travelled since your child's diabetes was diagnosed or you may still be unsure of what to do for the best when you go on holiday. There are many practical questions that we are going to try to answer but there is one that is almost guaranteed - anticipation of holidays and the day of travel causes excitement, especially in children. Excitement can affect blood glucose levels, so it is important to test regularly and be prepared for some low blood glucose levels!

Will I get the needles and insulin on the plane?

- You should always carry a card to say your child has diabetes. You will need a letter from your GP to explain that your child has diabetes so you have to carry insulin and other diabetes equipment on board with you. You may have to pay for this letter so make sure you keep copies as you can use the same letter time and time again.
- Due to the pressure difference in the cabin, air bubbles easily accumulate in the cartridges. To avoid this remove the needle immediately after each injection while on the plane.

- If air bubbles are present, be sure to get rid of them after landing. To do this remove the needle and depress the pen mechanism a few times so that the pressure inside the cartridge will increase. Tap the cartridge to make the air rise. Slowly push the needle through the membrane on the cartridge. Air will leak out as soon as the needle penetrates the membrane. If you push the needle through the membrane too quickly an air pocket will remain in the neck of the cartridge if this happens simply repeat the action.

How should I pack all the diabetes equipment we will need?

- Carry two lots of insulin, testing equipment and syringes/pens and distribute them between two different lots of hand luggage. Luggage does get lost and it could prove difficult to replace your diabetes equipment.
- Insulin should not be packed in your suitcase as this will go into the hold where the temperature can fall below freezing which is likely to damage the insulin.

What happens if the insulin gets warm?

- Going on holiday may mean insulin is not being kept in a refrigerator for several days.
- Exposing insulin to high temperatures can make the insulin weaker and so it will not act as efficiently - this may lead to higher blood sugar readings.
- If a refrigerator is not available try to store the insulin in a cool dark place.

How will I keep the insulin cool while we are on holiday?

- FRIO wallets are designed to keep insulin cool and safe for up to of 45 hours, even if the temperature is over 100 degrees Fahrenheit.
- Do not use ice packs as you will run the risk of freezing the insulin and damaging it.
- For further details or to order a FRIO wallet, the manufacturers can be contacted at: FRIO UK, PO Box 10, Haverfordwest SA62 5YG Telephone 01437 741700 or e-mail info@friouk.com visit: www.friouk.com

How much insulin should we take away with us?

- Always take more insulin than you need in case of breakages. The places that you are travelling to may not have the type of insulin you need. It is also a good idea to take an extra prescription with you, just in case.
- When you come home it is sensible to throw away the insulin you have taken on holiday as heat, bright light and vibration can all damage insulin and make it less effective.

How will hot weather affect my child's diabetes?

- Drink plenty of water as dehydration can raise blood glucose levels.
- Sunburn can raise blood glucose levels, so avoid spending long hours in the sun and wear sunscreen: children should use 50 SPF.
- Shield your meter from the sun. Test strips should be kept in a cool, dry place.
- Children and teenagers who use a pump may need to protect the adhesive patch from perspiration by using an antiperspirant at the contact site.
- In very hot weather insulin is absorbed more quickly, so test regularly to avoid hypos.

Do I need special travel insurance?

- A travel agent is not the best place for anyone with a long term condition to get travel insurance.
- Shop around but always declare your child's diabetes and any other medical conditions, otherwise you may not be covered if you need to use your insurance.
- If you are going on holiday in Europe, remember to take your European Health Insurance Card (EHIC) and proof of being a UK resident eg driving licence.
- The EHIC is available at the Post Office and online. You will need to complete a form for every member of the family.

Finally, perhaps worth remembering...

- Hot weather may affect blood glucose levels and can lead to low blood sugars.

- Extra exercise is often taken on holiday eg swimming and games on the beach, which may lead to hypos
- But most of all it is holiday, so enjoy it!

The Cause of Type 1 Diabetes – it's never your fault!

We get many calls from parents who feel that their child's diabetes is somehow their fault or they feel if they had done something different their child would not have developed Type 1 diabetes. It is so important to know that diabetes was not caused by something that you or your family did or didn't do.

We still do not have a clear understanding of what actually causes Type 1 diabetes but we do know it is not from eating too many sweets or being overweight. A common view is that around 60 – 70% of type 1 diabetes is caused by non – hereditary factors like viruses. But it is still unclear why this happens. The risk of developing diabetes is very different in different countries, again the reason for this is unclear, although there are many theories.

One thing that has been well documented is that there is nothing parents could have done to prevent Type 1 diabetes developing in their child and the blame very clearly does not lie with the parents or any other member of the family. If you would like to discuss this matter further or feel you need support after your child's diagnosis give Jenny a ring on 01604 622837 or e-mail jenny@iddtinternational.org

Chocolate and treating hypos – a warning!

In our February issue of the Parents Bulletin we referred to using chocolate to treat a hypo, something that many adults and children do because it is an opportunity to have something they enjoy while at the same time sorting out the hypo.

The professional advice tends to be that chocolate should not be used to treat a hypo for two reasons [i] its fat content in terms of increasing the intake of fats and [ii] the fat in chocolate tends to slow down the action of the sugar in some people.

Chocolate does contain fat which can slow down the action of the sugar content in the chocolate. For many people this seems to make no difference to the speed of action. However, one member has contacted us to say that her child has a slow absorption rate of fats, so chocolate given as a treatment for hypos does not kick in straight away and as a result blood sugars are raised sometime later.

Looking after children with diabetes can be challenging and demanding

By Dr Richard Halvorse

One of the many issues a parent has to face is vaccination. How important is vaccination in a diabetic child? Should extra vaccines be given? Could vaccines aggravate diabetes or even cause it?

Children with diabetes can be more susceptible to infections; if this applies to vaccine preventable diseases, then this makes the argument for vaccination stronger. However, though diabetic children are certainly more prone to certain infections, there is little evidence to suggest that they are more likely to suffer from any of the complications of infections for which there are vaccines than non-diabetic children. However, they should probably receive the normal vaccines, and the department of health recommends that diabetic children are also vaccinated against flu every year.

Vaccines are designed to stimulate the immune system. That is how they work. So it shouldn't be a complete surprise to think that vaccines can cause immune system related disorders, such as diabetes. Indeed, it's widely accepted that vaccines do cause autoimmune

disorders in some people; the debate is over how common – or rare – this is. The numbers of children with immune related disorders have rocketed over the last 20 years. The number of people with diabetes is increasing in nearly every country in the world, including the UK, and the fastest growing age group is children, especially those under five years of age. The increase in childhood diabetes is likely to be due to environmental factors in a genetically susceptible subgroup of the population. It has been suggested that one of these environmental triggers may be childhood vaccines.

Most vaccinations stimulate the immune system in an allergic ('type 2') direction, both directly, and via additives in the vaccines such as aluminium. The important question is whether this translates into real disease.

Most of the studies done on vaccinations and diabetes conclude that childhood vaccinations do not increase the risk of diabetes. But the research has been poor and one influential group felt that the trials done were inadequate 'to shed light on the possible link between onset of IDDM [diabetes] and vaccination. However, to confuse matters, some researchers have found a link between vaccines and diabetes, particularly in children with a family history of diabetes.

On the current evidence it appears possible that vaccines may be a contributory factor to diabetes in some susceptible children. If so, the most likely candidates are Hib (Haemophilus influenzae type b), the single mumps vaccine (or mumps component of MMR) and Hepatitis B vaccines.

The relationship between vaccines and disorders such as diabetes is likely to remain controversial and unresolved for some time. In the mean time it is advisable for diabetic children to be fully immunised and probably to have the seasonal flu jab as there is no evidence that vaccination can worsen diabetes in a child who already has the illness.

Younger siblings of diabetic children are more likely to develop diabetes

than other children. Whilst these younger brothers and sisters should receive most of the recommended vaccines, there is some evidence to suggest that their risk of developing diabetes may be reduced if they are not given the vaccines against mumps, Hib and hepatitis B. The hepatitis B vaccine is not given routinely in this country (yet) but both the mumps vaccine and the Hib vaccine are given in multi-dose vaccines (the MMR and 5-in-1 respectively) so cannot be easily left out of the NHS schedule. However, mumps is nearly always a mild and harmless illness, so the vaccine is certainly not essential. It is possible to omit the mumps vaccine by obtaining the measles and rubella (German measles) vaccines privately. The situation with the Hib vaccine is more difficult as Hib is a potentially serious illness (it causes meningitis) and the vaccine is therefore valuable. Parents who wish to leave it out, however, can do so by obtaining the other 4 parts of the 5-in-1 vaccine privately.

Dr Richard Halvorsen is the author of 'The Truth about Vaccines' and is Medical Director of BabyJabs, a private children's immunisation clinic offering parents an informed choice of vaccines.

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IDDT launches a FREE Year Six Lesson Plan and Resources

At the Education show in March 2010, IDDT launched this new way to improve children's knowledge and awareness of diabetes. In an ideal world we would like all children to grow up with a basic understanding of both types of diabetes and how it affects adults and children. IDDT's Lesson Plan is designed to try to improve this situation. The Lesson Plan especially aims to provide children [and perhaps their teachers] with an understanding of how Type 1 diabetes can affect children in their school, to understand about hypoglycaemia and its effects. It will also help them to understand more about the different types of food. This is not just to help children with diabetes but to make all children

aware of the need for healthy lifestyle and the risks of Type 2 diabetes in later life.

How will it work?

Personal Social Health & Economic Education (PSHE) is currently a non-statutory part of the school curriculum. Many schools choose to teach it because they find their pupils benefit from learning through presentations, creating posters and role play which enables them to manage their feelings and build positive relationships with others

All About Diabetes consists of 5 Lesson Plans and evaluation sheets in a folder for teachers to use in their lessons.

We also provide online resources for them or the children to use. This is available as a Powerpoint presentation which can be downloaded on to a memory stick from IDDT's website and used with a white board. The aim is to present the children with questions that they can attempt to answer and then the correct answers can be revealed when the teacher chooses. Another alternative is for children to use the material on the 'All About Diabetes' web page to make a poster or create a presentation.

Who will find it useful?

Clearly the Lesson Plan is aimed at teachers but parents of children with diabetes may also find it useful to take to the school to encourage teachers to use it.

- ▶ **The Lesson Plans are available free of charge.**
 - ▶ **To access the Lesson Plan and Resources on-line visit IDDT's website www.iddtinternational.org and click on 'All about Diabetes'.**
 - ▶ **If you would like a hard copy of the Lesson Plan, then contact IDDT by e-mail bev@iddtinternational.org, phone 01604 622837 or write to IDDT, PO Box 294, Northampton NN1 4XS**
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Where is Wilbert this summer?

With the summer on the horizon it will not be long before you are thinking about what you are going to do over the summer holidays.

This year IDDT thought it would be a fantastic idea to see where Wilbert gets to.

No matter where you are going, far distant lands, a day trip or staying with friends. Take your Wilbert bag, pencil cases, stickers or bugs with you and send us a photo and it may well get in the next Parents Bulletin or up on the Hall of Fame. Why not get involved and see how far Wilbert can go?

For Wilbert's special summer expeditions, get your free stickers, bags and bugs e-mail bev@iddtinternational.org or ring 01604 622837.

IDDT quarterly publications – your choice

As IDDT has grown so has the number of quarterly free, publications we produce. People who live with diabetes require different information, often according to the type of diabetes they have and the treatment they are given. For example, parents and children with Type 1 diabetes need different information from adults with Type 1 diabetes and people with Type 2 diabetes on diet and/or tablets require different information from people with Type 2 diabetes taking insulin.

IDDT produces the following quarterly publications:

- ▶ The Newsletter [for people taking insulin, both Type 1 and Type 2 diabetes]
- ▶ The Parents Bulletin [for parents of children with type 1 diabetes]
- ▶ Type 2 and You [for people on diet and/or tablets]

The amount of information you may want to receive can change. In addition to the Parents Bulletin, some parents may want to receive the Newsletter for the research and news. People with Type 2 diabetes treated with diet and/or tablets may want to receive the Newsletter in addition to Type 2 and You because their treatment has changed to insulin or may do so in the future.

We are happy to supply any or all of these free publications to you, just let us know if you would like to receive any additional publications to the ones you are already receiving.

Contact IDDT on 01604 622837, e-mail enquiries@iddtinternational.org or write to IDDT, PO Box 294, Northampton NN1 4XS

If you would like to join IDDT, or know of someone who would, please fill in the form (block letters) and return it to:

IDDT

PO Box 294
Northampton
NN1 4XS

Name: _____

Address: _____

Postcode: _____

Tel No: _____

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From Your Editor – Bev Freeman

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