



# Insulin Dependent Diabetes Trust

Type 2 and You  
January 2010



We are sending this issue of Type 2 and You out early as it has some useful tips in it for helping you to manage your diabetes over the festive period, as well as a couple of other articles that we hope you find of interest.

## Types of Treatment for People with Type 2 Diabetes

The aim of this article is to try and give people with Type 2 diabetes an understanding of the different types of treatment and medication they may be given, how these medications work, some of their side effects and how the medications can be used together to control blood glucose levels.

People with Type 2 diabetes often produce insulin but either they do not produce enough or it is not used properly by the body (this is called insulin resistance). This means that the body cannot control blood sugar levels properly and blood sugar levels rise. The treatment for people who are diagnosed with Type 2 diabetes consists of a combination of three elements:

- Diet
- Exercise
- Tablets and/or Insulin

Sometimes Type 2 diabetes can be treated with diet and exercise alone, sometimes with the addition of tablets and if this still fails to reduce blood sugar levels sufficiently then treatment with injections of insulin is necessary. On average, people with Type 2 diabetes will need to start taking insulin seven years after diagnosis. It is a combination of these three elements that is used to achieve target blood sugar levels to reduce the risk of complications.

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## Diet and Exercise alone

When people are first diagnosed it may be that a combination of a carbohydrate-controlled diet, together with exercise, will have the desired effect of lowering blood sugar levels. However, this may not be appropriate for everyone, for example, those who are not able to take exercise due to other health problems, so other medications have to be used.

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## Drugs used to treat Type 2 diabetes

There are a range of drugs that are used to treat Type 2 diabetes and these should be used alongside diet and exercise wherever possible. There are three main groups of drugs and they work in different ways.

- Metformin (brand name: Glucophage) – this reduces insulin resistance, which means that it improves the body’s ability to use the insulin that is still being producing. Because it does not increase the amount of insulin the body is producing, it does not

cause low blood sugar levels (hypoglycaemia or “hypos”). Its main side-effects are stomach upsets. If metformin on its own does not control blood sugar levels, then another drug may be added from the range known as sulfonylureas.

- Sulfonylureas (brand names: Glibenclamide, Diamicon, Gliclazide, Amaryl, Glimepiride, Glibenese, Glipizide, Minodiab) – these drugs increase the amount of insulin the body produces. This means that they have the effect of lowering blood sugar levels and can cause hypos. Their side effects can also be stomach upsets and skin reactions.
- Glitazones (brand names: Actos, Competact, Avandia, Avandamet) - these can also be added to the treatment regime. These drugs work by reducing insulin resistance in fat tissue, muscles and the liver. There has been some recent research that shows that they can cause fluid retention, heart and liver problems and increase the risk of osteoporosis. Some doctors are no longer prescribing them and you should discuss these drugs with your doctor if you are taking them.

There are other new drugs that can be used to treat Type 2 diabetes, such as exanatide (Byetta) and liraglutide (Victosa). These are injected but they should not be confused with insulin. They work in several ways; they stimulate the body to make insulin, they slow down the rate at which glucose passes from the gut into the bloodstream, they cause cells in the body to remove glucose from the blood and finally they act on the brain to produce a feeling of fullness that reduces appetite and therefore food intake. They are used together with tablets and because they lower blood sugar levels they can cause hypos. Different people can experience different side effects but the most common are stomach upsets.

### Adding in Insulin

If these medicines still don’t control blood sugar levels well enough then the doctor may prescribe insulin. There are lots of different insulin regimes and different types of insulin but people usually start with an

intermediate or long-acting insulin, taken at bedtime or twice daily, according to individual need. Intermediate and long-acting insulin work in the background all the time. They work to reduce blood sugar levels and so can also cause hypos.

However it is important to remember that if/when a person starts to take insulin they do not become a person with Type 1 diabetes, they become a person with Type 2 diabetes who takes insulin!

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## Reminder – Read the Patient Information Leaflets

All medications come from the chemist with what is called a Patient Information Leaflet (PIL). These are produced by the manufacturers of the medication.

It is important to read this leaflet on a regular basis even if you have been taking the medicine for years. One of the main reasons to do this regularly is that any new information or warnings about a medication will be in the Patient Information Leaflet. In addition, the leaflet gives you information about any side effects that a drug may cause or any interactions with other medicines you may be taking.

We are well aware that PILs are often in a language that is difficult to understand and often have masses of tiny print which puts us off reading them but nevertheless, it is important to read them regularly.

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## A date for your diary...

IDDT's Annual conference will be held on Saturday, October 9th 2010 in Birmingham. Our feedback forms from this year's conference

provided us with some interesting topics that participants would like to see covered in 2010, so we will do our best to answer at least some of these in 2010. We hope that many of you will be able to attend.

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## Christmas Tips

Christmas is an exciting and happy time with lots going on – presents, parties and usually lots of food and drink. However, if you or someone in your family has diabetes, Christmas can also be a worrying and stressful time, especially if this is your first Christmas with diabetes. We all tend to eat and drink a lot more than we should and it tends to be the sort of food that is not exactly ideal for people with Type 2 diabetes who are taking tablets or insulin. We know that you cannot take a day off from your diabetes but here are some tips that you may find helpful in making your Christmas one that can be enjoyed.

### Things to remember...

- Excitement lowers blood sugar levels, whereas stress tends to raise blood sugar levels.
- Eating more can raise blood sugar levels but exercise lowers them so a walk after a big Christmas dinner will help to lower them.
- Try to keep meals to normal times and have a snack if you are eating later than usual.
- If you normally test your blood sugar maintain your testing routine as far as possible and test more often if eating frequently or at irregular times.
- Plan ahead – make sure you have enough tablets or insulin to last you through the Christmas and New Year holiday periods.

### Food Tips

- Decrease the sugar in your favourite recipes; use less sugar, substitute sweeteners for sugar, use sugar-free gelatins for deserts and use sugarfree drinks in punches and other drinks.
- Christmas dinner is similar to a Sunday lunch with a few extras

likecranberry sauce and stuffing which will raise blood sugar levels so pick and choose what you eat. Alternatively, you could have everything on offer but just have smaller portions. Remember to take a family walk after lunch – it's good for everyone and a convenient way of lowering blood sugar levels.

- Make your own mince pies so they have thinner pastry than shop bought ones. You can also add finely chopped apple to mincemeat to reduce the sugar content.
- Put more fruit in trifle and use less of the sugary stuff.
- Have plates of raw vegetables and low calorie dips around as nibbles rather than crisps, twiglets etc. Nuts and dried fruit are also a good alternative but still contain carbohydrate.

### How about a drink?

When you drink alcohol your liver reduces its ability to release glucose into the blood so, if you take sulfonylureas or insulin, you can be at risk of going hypo over the next 24 hours and possibly longer. However that does not mean that you can't enjoy a drink over the festive period. But there are some golden rules to follow:

- Only drink in moderation – good advice whether you have diabetes or not.
- Learn by experience how alcohol affects you and your diabetes - everyone is different.

### **If you take sulfonylureas or insulin then the following tips will help you avoid a hypo:**

- If you are not having a meal with your alcohol then nibble some carbohydrates, such as crisps, or, if you use insulin, lower your dose prior to having a meal and before you have a drink.
- Don't drink alcohol before a meal.
- Have an extra snack before going to bed. The alcohol could lower your blood sugars in the night while you are asleep, resulting in a night hypo. Also the alcohol may make you sleep more soundly, so your hypo warnings may not wake you.

*Don't let diabetes spoil your day!!!*

**Insulin Dependent Diabetes Trust**

PO Box 294  
Northampton  
NN1 4XS

tel: 01604 622837

fax: 01604 622838

e-mail: [support@iddtinternational.org](mailto:support@iddtinternational.org)

website: [www.iddtinternational.org](http://www.iddtinternational.org)