

## WHAT IS DIABETES?

### What is it?

Your recent blood test has shown that you are at risk of getting Type 2 diabetes. This means that you are in a pre-diabetic state and need to try and make changes to your lifestyle that will help to delay the onset of Type 2 diabetes.



Normally, when you eat a meal or snack, the food is broken down in your stomach and any glucose (sugar) gets taken into your bloodstream and is carried round your body, rather like a motorway network. As the glucose goes into your bloodstream your brain tells your pancreas to produce some insulin, which is a hormone that keeps your glucose levels within normal limits (4-7mmols/l). Insulin helps your body to turn the glucose into energy which you need to stay healthy.

What's happening inside your body right now is that you are becoming resistant to insulin. In other words, your pancreas is still making insulin but your body isn't using it up properly. This means that you'll have extra glucose travelling around your body that's not being turned into energy.

However, your body is clever and as your blood glucose levels start to get higher, your brain tells your pancreas to produce more insulin to cope – at the moment, this is working for you, but if you imagine your pancreas is like an insulin factory with the staff working 24 hours a day, 7 days a week to keep up with demand, they're soon going to get worn out and so production will start to wane. Producing more insulin to help keep your glucose levels between 4-7mmols/l won't solve the problem for long because your body is still resistant to using it up properly. Gradually, over time, your glucose levels will start to creep up again and before long you'll be diagnosed with Type 2 diabetes.

So, what can you do about this?

### Relieve the pressure!

Well, first you need to try and take the pressure off your pancreas so it won't need to work as hard to keep your glucose levels within normal range. It's the carbohydrate foods (carbs) that you eat which break down into glucose, so it makes sense to look at the type and amount of carbs that you're eating each day. If you're eating large amounts of carbs at each meal, then you'll be asking your pancreas to work harder – plus, any extra glucose that isn't being turned into energy because of your insulin resistance, will lay itself down as fat, usually round your waistline. It's important to remember that you need to eat carbs for energy but watch your portion size. You can start doing this straight away.

## **Tackle your insulin resistance!**

Often, people with impaired glucose tolerance tend to carry weight around their waistline – you might be ‘apple shaped’ – and this makes insulin resistance worse. So, you need to try and lose some weight, especially from your middle, by cutting down on eating fat (especially saturated) and being more active (this not only helps your weight but also uses up extra glucose). This takes a bit more time and planning but is really important for your long-term health.

## **What if you don't make any changes?**

If you can relieve the pressure on your pancreas and help reduce your insulin resistance, you can hopefully delay the onset of Type 2 diabetes. It might not stop you from developing diabetes later on, but if you don't make changes now, it's more likely to be sooner rather than later. Type 2 diabetes comes with added complications, like heart attacks, strokes, eye, kidney and foot problems so the longer you can delay its onset, the better chance you have of reducing these risks.

## **What else?**

Make sure you have a blood test every year that will tell you how you are doing. This is called a glycosylated haemoglobin test (HbA1c). The HbA1c test is a three month reflection of what your blood glucose levels have been like. This is important because it doesn't depend on what you ate at your last meal or whether you've treated yourself occasionally – it gives an overall picture of your blood glucose level and not just a snapshot. You want to try and keep your HbA1c 47mmols/mol or below, but if your HbA1c reading is 48mmols/mol or higher it means that you will be diagnosed with Type 2 diabetes.

It's important to be aware of the signs of rising blood glucose levels. These include:

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- **Tiredness**
  - **Passing urine more often**
  - **Feeling thirsty or dry mouth**
  - **Blurred vision**
  - **Recurring infections**
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If you notice any of these symptoms make an appointment with your GP or Practice Nurse so that you can get your HbA1c test done sooner.

# WHAT CAN I DO?

## CARBOHYDRATES

Here are some examples of carbohydrate foods (carbs). The sugary ones send your glucose up quickly and the starchy ones are slower release.

<b>SUGARY</b>	<b>STARCHY</b>
Your Quick Fix - Blood Glucose Rises Quickly	Your Fuel - Blood Glucose Rises More Slowly
<i>Sugar</i> <i>Sweets (except sugar-free)</i> <i>Fizzy pop (except diet/sugar-free)</i> <i>Fruit juice**</i> <i>Chocolate</i> <i>Beer</i> <i>Jam/honey/syrup</i> <i>Fruit (eat up to 5 separate portions a day)*</i>	<i>Potatoes (incl. crisps, chips, mash)*</i> <i>Cereal**</i> <i>Pasta**</i> <i>Rice**</i> <i>Bread (incl. crackers, naan)***</i> <i>Flour products (incl. pastry, cake, biscuits)</i>

\* Use your hand as a guide to measure your portion size of fruit like grapes, strawberries etc. & potatoes

\*\* Weigh/measure portion as per packet or carton

\*\*\* Bread – x2 slices or equivalent is a portion

*Remember that starchy carbs might also be sugary, like cake, so you're eating both together in one!*

### Tips

- ✓ Eat a portion of fruit if you're feeling hungry instead of cake, crisps or biscuits
- ✓ Eat one portion of starchy carbs at each meal – avoid doubling up e.g. pastry & potatoes, bread & crisps
- ✓ Use artificial sweetener instead of adding sugar
- ✓ Look for sugar free/low sugar alternatives e.g. jelly, jam, squash, mixer drinks
- ✓ Keep alcohol, especially beer, within guidelines – 2 units daily for women, 3 for men
- ✓ Add extra vegetables to your meal to fill you up
- ✓ Be in control of 'treats', try not to have them every day



## FATS

All fats are high in calories and will put weight on around your middle, so try and reduce the amount you eat. Also, especially avoid saturated fat because this can raise your cholesterol and increase your risk of having a stroke or heart attack.

### Tips

- ✓ Change to olive oil spread rather than butter
- ✓ Only spread one piece of bread for a sandwich – you'll be cutting approx. 100 calories!
- ✓ Cut out the spread on toast if you're having a moist topping e.g. beans, egg, jam
- ✓ Choose lean cuts of meat and eat more oily fish containing omega 3
- ✓ Look at your cooking methods
- ✓ Choose monounsaturated oil to cook with e.g. olive, vegetable, rapeseed, nut oil.
- ✓ Be aware of hidden (usually saturated) fat in food e.g. pastry, sausages, cream, peanuts, cheese

## EXERCISE

Try and be more active than you are already. The recommended guidelines are you should be doing 30 minutes of moderate exercise five days a week. This will help reduce your weight from round your middle, so improving your insulin resistance. It also makes you feel better in yourself.

### Tips

- ✓ Build up your exercise gradually
- ✓ Choose something you enjoy
- ✓ Walking is free and one of the best ways to get more active
- ✓ Build on activity you do already e.g. walk a longer route to buy your paper, get off the bus a stop early
- ✓ Get a 'buddy' to exercise with you
- ✓ Make time to get more active – plan it into your daily routine.



## TAKE A LOOK AT...

**One You** – [www.nhs.uk/oneyou/diabetes](http://www.nhs.uk/oneyou/diabetes). The one-stop-shop health campaign from Public Health England. Visit the site for health quizzes, fun apps and useful advice and resources.

**Diabetes UK** – [www.diabetes.org.uk](http://www.diabetes.org.uk). The leading charity that cares for, connects with and campaigns on behalf of every person affected by or at risk of diabetes.