

# Diet and reactive hypoglycaemia

# **Nutrition and Dietetics**

**Patient Information Leaflet** 

#### Introduction

This leaflet is for people who have a condition called reactive hypoglycaemia. It gives information on what this condition is, how it is diagnosed and how it is treated.

#### What is reactive hypoglycaemia?

Some people without diabetes regularly experience low blood glucose levels within four hours of eating a high carbohydrate meal. This is known as reactive hypoglycaemia. It is also sometimes called after eating hypoglycaemia (hypo).

#### What causes it?

In most cases of reactive hypoglycaemia, it is not clear why it happens. The following have been suggested as possible causes:

- The pancreas produces too much insulin. Insulin allows glucose to move from the blood into the cells that make up your body. Your cells use glucose as fuel. If you produce too much, more glucose than normal is moved out of your blood into your cells.
- Over sensitivity to insulin.
- Over sensitivity to adrenaline which is a hormone produced naturally in the body.
- Problems with the production of a hormone called glucagon. This hormone is usually released by the body if you have low blood glucose levels.
- Some types of gastric (stomach) surgery.
- Rare enzyme deficiencies, such as hereditary fructose intolerance or galactosaemia.
- Having large amounts of alcohol and carbohydrate on an empty stomach.
- Drinking alcohol after a very long time without food.

#### What are the symptoms of reactive hypoglycaemia?

You may experience some or all of the following:

- Sweating
- Dizziness or feeling faint
- Tingling lips
- Blurred vision
- Irritability
- Confusion or difficulty in thinking
- Shaking or trembling
- Anxiety or palpitations
- Hunger
- Feeling tired or drowsy

If you get these symptoms, contact your GP for advice. As these symptoms are common to many other conditions, your GP or consultant will need be involved in diagnosing whether you have reactive hypoglycaemia.

#### How is reactive hypoglycaemia diagnosed?

An extended oral glucose tolerance test looks at how your body reacts to carbohydrate and is used to diagnose reactive hypoglycaemia.

This involves having your blood glucose level measured first thing in the morning before you eat or drink anything.

After this, you will need to drink a very sugary solution and then have your blood glucose level rechecked at set times over the next five hours.

If your blood glucose levels fall below 4mmol/L during this period, and you experience any of the symptoms mentioned above, it is likely you will be diagnosed with reactive hypoglycaemia.

#### How is reactive hypoglycaemia treated?

The main focus of treatment will be your diet. Your GP or consultant should refer you to a registered dietitian for specific, individual advice.

However, in general the condition is helped by:

- Eating small but regular meals, maybe five or six smaller meals a day, or about every three hours.
- Choosing high fibre and slowly-released carbohydrate foods (low GI) at each meal and a snack in between as these can help balance your blood glucose levels. For example, porridge oats, basmati or brown rice, granary, seeded or rye breads, wholegrains, fruit, lentils, beans, chickpeas and sweet potato.
- Limiting sweet foods such as sugary drinks, sweets, sugar and sweet desserts.
- Limiting sugary alcoholic drinks if you have not eaten for a long time, as alcohol in combination with sugar can cause low blood glucose levels.
- Including protein with meals and snacks, as it slows down the absorption of glucose. Good sources of protein include meat, poultry, eggs, fish, peas, beans and lentils, peanut butter, nuts, seeds, milk, yoghurt, cheese, tofu, Quorn and soya products.
- Avoid caffeine if you find that it makes your symptoms worse. Try decaffeinated drinks instead.

## Example of a daily menu plan

Breakfast	Porridge oats with milk <b>or</b> 2 medium slices of granary toast with a poached egg				
Mid-morning	<ul> <li>Choose from:</li> <li>A piece of fruit</li> <li>Vegetable sticks with hummus or a pot of low fat yoghurt</li> <li>2 wholewheat crackers with peanut butter</li> <li>A handful of nuts</li> <li>A slice of granary or seeded toast with low fat spread</li> </ul>				
Lunch	<ul> <li>Choose from:</li> <li>2 medium slices of granary bread with cold meat, low fat cheese or tinned fish, plus salad</li> <li>1 to 2 medium slices of granary toast with 3 tablespoons of baked beans</li> <li>Soup with beans, peas or lentils</li> </ul>				
Mid-afternoon	Snack as for mid-morning				
Evening meal	3 to 4 egg-sized boiled new potatoes <b>or</b> 4 tablespoons of basmati rice <b>or</b> 1½ cups of pasta (150g cooked weight) Meat, chicken, fish or other protein such as egg, tofu, Quorn or lentils Vegetables				
Supper	Snack as before				

### Ways that you can improve your current diet:

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## What should I do if I experience a hypo?

A hypo can be treated with quick-acting carbohydrate, such as:

- 150ml cola
- Five jelly babies
- Four or five glucose tablets
- Three heaped teaspoons of sugar in water

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If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Dietitians at Russells Hall Hospital on 01384 244017 (8.30am to 4.30pm, Monday to Friday)

Community dietitians at Stourbridge Health and Social Care Centre on 01384 323749 (8.30am to 4.30pm, Monday to Friday)

Russells Hall Hospital switchboard number: 01384 456111

This leaflet can be downloaded or printed from: http://dgft.nhs.uk/patients-and-visitors/patient-information-leaflets/

If you have any feedback on this patient information leaflet, please email dgft.patient.information@nhs.net

# This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

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Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

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