



University Hospitals Birmingham
NHS Foundation Trust



Dietary Advice for Reactive Hypoglycaemia

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The term reactive hypoglycaemia is used to describe episodes of low blood glucose (sugar) levels which typically occur two to four hours after a meal. It is thought that this is triggered by the overproduction of insulin following a meal with large carbohydrate content.

Carbohydrates are our main source of energy and provide important nutrients for a healthy and balanced diet. All the carbohydrates you eat and drink are broken down into glucose. There are two main types of carbohydrates:

- **Starchy foods:** these include bread, pasta, potatoes, yams, breakfast cereals, rice, chapattis and couscous
- **Sugars:** these include added sugars found in sweets, chocolate, sugary drinks and desserts, and naturally occurring sugars found in fruits and some dairy foods

Insulin is a hormone produced by the pancreas. It transports glucose from the blood to the tissues to produce energy. If too much insulin is produced after a high-carbohydrate meal, blood glucose levels can drop too low.

Common symptoms

- Fatigue
- Dizziness or light-headedness
- Sweating
- Trembling
- Difficulty concentrating
- Irritability or anxiety
- Increased appetite or cravings for sweet foods
- Blurred vision
- Rapid heart beat

This patient information leaflet gives some general information to help you make the recommended changes to your diet.

The following dietary changes may help relieve symptoms:

Eat five to six small meals or snacks a day

Eat frequently (approximately every three hours) to avoid long gaps between meals. This is one of the most important dietary factors in managing reactive hypoglycaemia.

Limit foods high in sugar

Limit intake of sweets, sweet desserts, jam or honey. Small amounts can be taken occasionally as part of a meal.

Avoid sugary drinks

Avoid sugary, non-diet fizzy drinks, fruit juice or squash, and avoid adding sugar to hot drinks. Use no added sugar squash or diet or zero drinks and dilute fruit juice with water.

Avoid large portions of starchy foods

For example, potatoes, pasta, cereal and rice. Spread them throughout the day by having small amounts at each meal.

Try and choose foods with a lower glycaemic index

These are foods containing carbohydrates which are digested more slowly and can therefore help to keep blood glucose levels steady.

Carbohydrate food	Lower glycaemic index choice
Bread	Multigrain, granary, rye, seeded, wholegrain, oat, pita bread and chapatti
Potatoes	New potatoes in their skins, sweet potato and yam
Pasta	All pasta (cook until al dente) and noodles
Rice	Basmati rice, long grain and brown rice
Other grains	Bulgur wheat, barley, couscous and quinoa
Breakfast cereals	Porridge, muesli, most oat and bran-based cereals

Choose higher fibre foods

Add lentils, beans, and pulses to meals. Use wholegrains such as granary bread and brown rice. Include more vegetables and fruit. It is better to eat the whole fruit itself and not fruit juice, because the sugar in the whole fruit is absorbed more slowly in our bodies. Fibre helps slow down the digestion and absorption of glucose, helping to minimise blood sugar spikes and drops.

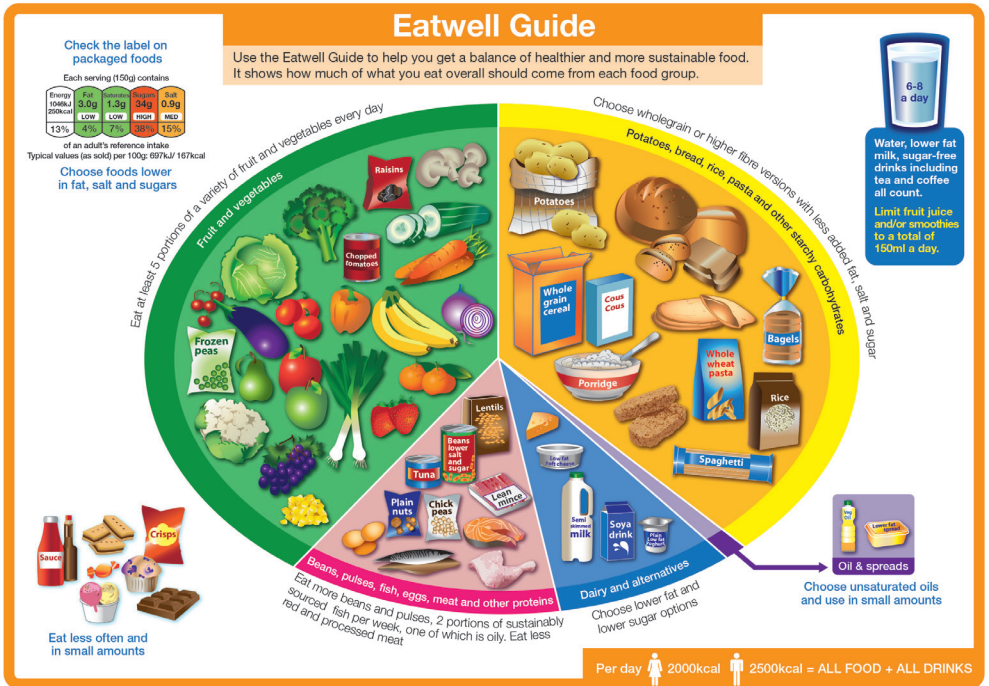
The government recommends that we aim for 30g of fibre in our diets per day.

Include protein foods at each meal

Good sources of protein include meat and poultry, fish, eggs, beans and lentils, tofu, nuts and dairy foods. Protein foods are slower to pass through the digestive system, causing sugar to be released into the bloodstream more slowly.

Ensure a healthy and balanced diet

Include a variety of foods in your diet and aim for five portions of fruit and vegetables a day.



Alcohol

Alcohol can lower blood glucose levels. If having alcohol, keep to one to two units of alcohol with or shortly after a meal. Use diet soft drinks or mixers.

It is recommended that you keep your alcohol intake to less than 14 units of alcohol per week.

Meal suggestions	
Breakfast	<p>Porridge with nuts and berries</p> <p>Muesli, oat or bran-based cereal with milk</p> <p>Wholegrain/granary toast with poached egg</p>
Lunch	<p>Wholegrain pita bread with cheese & salad</p> <p>Couscous or pasta salad</p> <p>Meat and vegetable stir-fry with noodles</p> <p>Baked beans and jacket potato</p> <p>Soups with beans, peas or lentils</p> <p>Sandwiches made with multigrain bread</p> <p>Chicken salad wrap</p>
Evening meal	<p>Chilli (meat or bean) with brown rice</p> <p>Chicken casserole with new potatoes and vegetables</p> <p>Grilled fish with plenty of vegetables/salad and sweet potato</p> <p>Salmon and noodles with stir-fry vegetables</p> <p>Chickpea curry with basmati rice or one chapatti</p> <p>Pasta with tomato-based sauce</p>
Snacks	<p>One portion of fruit</p> <p>One pot of yoghurt</p> <p>Slices of apple and cheese</p> <p>Carrot/celery sticks and hummus</p> <p>Two rye/multigrain/whole wheat crackers and soft cheese</p> <p>A handful of nuts and seeds</p> <p>One slice granary toast</p>

What should you do if you have symptoms of a low blood sugar level?

Eat or drink something that will provide a small amount of fast acting (sugary) carbohydrates such as:

- Four Jelly Babies
- A small can of cola (150mls)
- 200ml of fruit juice from concentrate
- Five to six dextrose tablets

Follow this up with a slow acting carbohydrate such as:

- A slice of bread
- One to two plain biscuits
- A piece of fruit
- 200ml of milk

You may find keeping a food and symptom diary is useful to identify triggers for your symptoms.

In summary

Following this dietary advice is the most effective treatment for reactive hypoglycaemia as it ensures that blood sugar levels stay well within the normal range, preventing hypoglycaemia symptoms.

If you require any further information please contact your Endocrine Team:

Queen Elizabeth Hospital Birmingham

Email (preferred method): **EndocrineNurses@uhb.nhs.uk**

Phone: **0121 371 6950**

(We will aim to return telephone call within 3–5 working days)

Birmingham Heartlands, Solihull and Good Hope Hospitals

Email (preferred method):

EndocrineCNSreferral@heartofengland.nhs.uk

Phone: **0121 424 2487**

(We will aim to return telephone call within 3–5 working days)



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