

Notes:

Name:

Date:

Dietitian:

Contact number:

Hospital site:

Patient Advice and Liaison Service

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Reference: BH/PIN/522

Publication date: October 2016

All our patient information leaflets are reviewed every three years.

Patient information

Practical advice for managing diabetic Gastroparesis

Nutrition and Dietetics Department



Gastroparesis

Gastroparesis is a long-term condition where the stomach empties very slowly; it is also known as delayed gastric emptying. The condition is a disorder that slows or stops the movement of food from the stomach to the small intestines.

Normally the muscle of the stomach is controlled by the vagus nerve. As the stomach contracts this helps to break up the food and move it along the digestive tract. Gastroparesis occurs when the vagus nerve is damaged by illness or injury. The stomach muscles malfunction and movement of food slows down or stops.

Diabetic Gastroparesis is common in both Type 1 and Type 2 diabetes. It is more common in Type 1 Diabetes and occurs in 20% Type 1 Diabetes. It has been found to be more common in women than men. The prolonged variation of blood glucose levels can damage the vagus nerve resulting in autonomic neuropathy (nerve damage) so that the stomach is unable to empty properly. This results in the food being absorbed slowly at unpredictable times leading to further blood glucose swings.

Other advice

- High blood glucose levels can cause slow stomach emptying and make you symptoms worse. Aim for a blood glucose level of 4-7mmol/L before meals and 10mmol/L after meals
- It may be necessary for you to take a multivitamin. Your Dietitian will advise you if this is necessary and what type of multivitamin you should take
- You may need to change the time you take your insulin i.e. taking it before your meal or splitting your dose.
- Or you may need to inject where absorption may be slower (thigh)
- Monitor blood glucose levels more frequently after the food and take insulin when required.
- You may require an insulin pump (Please discuss this further with your Diabetes Team)
- You can find more information on the following website <http://diabetes.org.uk>

What should I do?

Avoid large quantities of fat as it increases gastric emptying time

- Spread your fat intake over the day rather than having one large high fat meal
- Don't forget to choose two portions of oily fish per week to ensure you are not missing out on essential fatty acids e.g. salmon, trout, mackerel
- If you are prescribed a high fat supplement because you are losing weight e.g. Calogen™ take this in between or after your meals
- Avoid cooking with large amounts of fat; use moderate quantities of oil in cooking or use fat-free cooking methods e.g. microwave, grill, dry roast
- Trim fat from meat

Causes

In many cases the cause of gastroparesis is not known. However the most common causes of gastroparesis are prolonged poorly controlled Diabetes and post- surgery complications. It can also be a result of some medications e.g. opioids and some antidepressants tablets. Viral infection and other medical conditions e.g. Parkinson's disease, multiple sclerosis and thyroid conditions have also been identified as causes of gastroparesis.

Symptoms

Initially some patients do not experience any symptoms.

Typical symptoms are:- bloating, abdominal pain, feeling full quickly after eating a small amount of food, heartburn, nausea and loss of appetite.

Other symptoms may include:- Vomiting of undigested food (this can occur several hours after eating), gastro-oesophageal reflux, weight changes, constipation or diarrhoea and problems controlling blood glucose levels.

These symptoms vary from mild to severe. Gastroparesis cannot be cured and may mean that you will have to follow a diet that is different to what you have been previously advised.

Principal goals for management:

- Correct fluid, electrolyte and nutritional deficiency
- Reduce the symptoms
- Identify and correct if possible the causes of gastroparesis.
- Optimize blood glucose levels
- Minimise fluctuating blood glucose levels as gastric emptying is very sensitive to changes in blood glucose levels.

What should I do?

The following advice may help with the symptoms you are experiencing and also improve your food intake.

- You may find you can eat more if you have small, frequent meals. Aim for 6 small meals rather than 3 large meals.
- Make sure you chew your food well before swallowing
- Very cold foods or very hot foods can empty from the stomach slowly. You may find snacks that can be taken at room temperature easier to tolerate
- You may find it easier to purée or blend your food, perhaps with milk or soup. This will mean that your stomach will not have to work as hard and may help your stomach to empty more quickly
- Remain upright whilst eating and try to rest after meals
- Avoid carbonated drinks with meals

Eat more low fibre foods

- Well-cooked fruits and vegetables
- Tender meat, chicken and fish
- Refined cereals and bread e.g. Rice Krispies™, Cornflakes™, white bread
- Yoghurt
- Limit high fibre foods such as bran based cereals, muesli, jacket potato skins, rye crisp bread
- Avoid foods which may form a 'ball' in your stomach; e.g. berries, dried figs, potato and tomato peel, apples with skins, coconut, oranges, sweet corn, broccoli stalks and tough meat