



## Diabetes and Endocrinology

# Dietary Advice for Gastroparesis Information for People with Diabetes

Gastroparesis is a type of neuropathy (nerve damage) affecting the nerves which control movement of food through the digestive tract. It is a chronic condition, which means a slowed emptying of the stomach and can lead to long periods of high blood glucose levels. When the stomach empties too slowly, it can cause a build-up of foods, and can lead to the following symptoms:

- Heartburn
- Vomiting
- Nausea
- Abdominal pain or discomfort
- Sweating
- Bloating
- Lack of appetite and weight loss
- Reflux
- Early feelings of fullness
- Erratic blood glucose levels
- Hypoglycaemia shortly after a meal

Gastroparesis can make it more difficult to manage your blood glucose levels. Food takes longer to digest, and stomach-emptying can be unpredictable causing blood glucose levels to be more erratic. The rate your stomach empties can change from day to day, making blood glucose levels difficult to predict.

### Who experiences gastroparesis?

Gastroparesis can be caused by other conditions, for example nervous system diseases such as Parkinson's disease, or smooth muscle disorders such as Scleroderma. However, the most common reason for gastroparesis is diabetes. This is because high blood glucose levels over a long period of time cause damage to the nerves in the stomach. When the nerves do not work well, the stomach cannot contract and move food through as quickly as before.

Gastroparesis is more common in type 1 diabetes, but can also occur in type 2 diabetes. Up to 50% of people with diabetes have some degree of gastroparesis but in most cases it is mild.

## Treatment

The aims of treatment are to relieve symptoms, to improve blood glucose levels and maintain a healthy weight. Your oral medication or insulin may need to be changed to help to manage dietary changes and the effects of gastroparesis. Your diabetes specialist nurse can advise you about this.

Gastroparesis is a chronic condition that is usually managed rather than cured. However, there are medications available to help relieve symptoms of nausea and help the process of stomach emptying. Your doctor will be able to advise you on this.

If you smoke, stop. Smoking constricts blood vessels and can make the condition worse.

## Can diet help to manage gastroparesis?

By making some changes to your diet and being careful with what you eat can help you to manage your symptoms as well as improve your blood glucose management. The aim is to avoid the types of food that will delay digestion and stay in your stomach for longer, to avoid fluctuations in your blood glucose levels and ensure you maintain good nutritional intake.

Your dietitian may take a diet history to help identify which foods do not upset you, and to give you an individualised dietary plan. These changes may include:

- Having small, frequent meals (four to six times per day)
- Chewing food well as this helps to speed up stomach-emptying
- Cutting down on fatty meals (fat keeps food in the stomach longer and worsens symptoms)
- Being careful with high fibre foods that may cause bezoars (undigested food hardening in the stomach which may form blockages)
- Avoidance of fizzy drinks which increase symptoms of bloating
- Limiting alcohol which delays the stomach from emptying
- Sitting up or taking a walk within two hours of eating can be helpful in speeding up the stomach emptying. Taking food in blended/liquid form as it passes through the stomach more easily and quickly
- Drinking plenty of fluid (1-1.5 litres per day) to avoid dehydration
- Avoiding caffeine as it can constrict blood vessels and make symptoms worse

It is important to eat carbohydrate foods at each meal. This helps to keep your blood glucose levels steady. Try to include something from this list at each meal:

- Low fibre breakfast cereal eg rice crispies, cornflakes
- White bread
- White pasta
- Potatoes with skin removed
- Basmati rice

## **Fat**

Eating too much fat can slow down digestion and worsen symptoms. It is alright to include some fat in your diet, such as butter or spread on your bread or a little oil in cooking, but try to avoid high fat meals, such as deep-fried foods like fish and chips or pizza, some curries, pastries and cream cakes. Full-fat milk, yoghurts and custard are usually better tolerated because they are liquids. If you are not able to eat much food, you may find these liquids are a useful part of your diet

## **Fibre**

Fibre makes you feel full and slows stomach-emptying. When you are suffering from the symptoms of gastroparesis, it is best to cut down on fibrous foods. Avoid stringy vegetables, or orange pith, as this can form an indigestible solid, known as bezoar, in the stomach. If this passes into the small intestine it can cause problems. Here are some tips:

- Avoid raw vegetables; cook vegetables well
- Avoid seeds (except golden linseeds) and obvious stringy parts of fruit and vegetables, such as pith or the skins of tomatoes
- Avoid the skin and seeds of fruit. If you have difficulty tolerating raw fruit, try stewed or tinned fruit
- Choose white rather than wholegrain options, for example choose potatoes without skins, basmati rice, white bread and white pasta.

The following foods have been linked with bezoar formation and should be avoided as well as following the low fibre advice:

- Wholemeal bread
- Bran and bran-based cereals
- Nuts and seeds (except golden linseeds)
- Popcorn
- Broccoli, Brussels sprouts
- Oranges
- Beans
- Coconut
- Apples
- Berries
- Figs
- Sauerkraut
- Sweetcorn

## Timing of your meals

When you have gastroparesis it can be very uncomfortable to eat a large meal. You may find eating six small meals, spread over the day, is easier to tolerate than three larger meals. For example:

<b>Breakfast</b>	Fruit smoothie/yoghurt or small bowl of cereal eg cornflakes, porridge
<b>Mid-morning</b>	Toast or plain biscuits
<b>Lunch</b>	Sandwich with turkey/egg/salad with plain cake/ice cream
<b>Mid-afternoon</b>	Plain biscuits, yoghurt, fruit
<b>Evening meal</b>	Chicken/fish/lean meat/tofu with potato/rice/pasta and vegetables
<b>Supper</b>	Soup and bread/crumpet/plain biscuits

## Liquid meals

If you follow the tips already mentioned but are still suffering with symptoms and not able to eat enough food, then you may benefit from trying to have liquid foods. This can be done by blending your food with some extra liquid. When adding liquid to foods, avoid adding extra water. Instead choose nourishing liquids such as milk, gravy stock, soup or juice, depending on which food you are adding it to. Blended/liquid foods and drinks tend to empty from the stomach more quickly.

If you are mainly having blended foods, it is best to speak to your dietitian so that they can check that your diet is as well-balanced as possible.

## Nourishing drinks

If you are only able to eat small amounts, it is helpful to include nourishing drinks. Try milk, milk shakes, fruit juice and soup. You can also buy 'Meritene' and 'Complan'. They are available from chemists and some supermarkets. These can be a useful boost to your nutrition. They are bought in powder sachets and the soups are made up with hot water and the shakes are made up with milk.

To make milk more nourishing try adding two heaped tablespoons of milk powder to one pint of milk. This fortified milk can be used for drinking, adding to cereal or using in sauces.

## Prescribed nutritional supplement drinks

If you have tried all of the previous advice and you are unable to eat enough calories and protein to meet your needs, then you may need some nutrition supplement drinks. These have to be prescribed. Your dietitian can advise you and request a prescription from your GP. A daily multivitamin may be recommended if dietary intake is poor.

## Tips for coping with nausea:

- Use times of the day when you feel less nauseous to prepare food for later
- Eat the foods that you fancy
- Avoid fried, greasy, fatty foods
- Avoid strong cooking smells – it can be helpful to eat cold food or to ask someone else to cook while you are in another room
- Small amounts of ginger-based foods eg ginger beer or ginger biscuits may help
- Ice lollies or ice cubes can help the mouth feel fresher and increase appetite
- After eating, stay upright for at least half an hour, ideally an hour, after eating.

We hope that you have found this information useful. If you have any questions or are worried about anything, please speak to the following Dorset County Hospital Staff:

## Contact Numbers:

Dorset County Hospital Diabetes Centres

Tel: **01305 255130** Email: [diabetes.secretaries@dchft.nhs.uk](mailto:diabetes.secretaries@dchft.nhs.uk)

Diabetes Specialist Dietitians

Tel: **01305 255211**

Diabetes UK Careline

Tel: **0345 123 2399** (charges apply, see website for details) Email: [careline@diabetes.org.uk](mailto:careline@diabetes.org.uk)

## Useful Website:

[www.diabetes.org.uk](http://www.diabetes.org.uk)

## About this leaflet:

Author(s): Sandra Hood, Diabetes Specialist Dietitian  
Written: September 2020  
Approved: August 2021  
Review Date: August 2024  
Edition: v1

If you have feedback regarding the accuracy of the information contained in this leaflet, or if you would like a list of references used to develop this leaflet, please email [pals@dchft.nhs.uk](mailto:pals@dchft.nhs.uk)



**INTEGRITY | RESPECT | TEAMWORK | EXCELLENCE**

© 2021 Dorset County Hospital NHS Foundation Trust  
Williams Avenue, Dorchester, Dorset DT1 2JY  
[www.dchft.nhs.uk](http://www.dchft.nhs.uk)