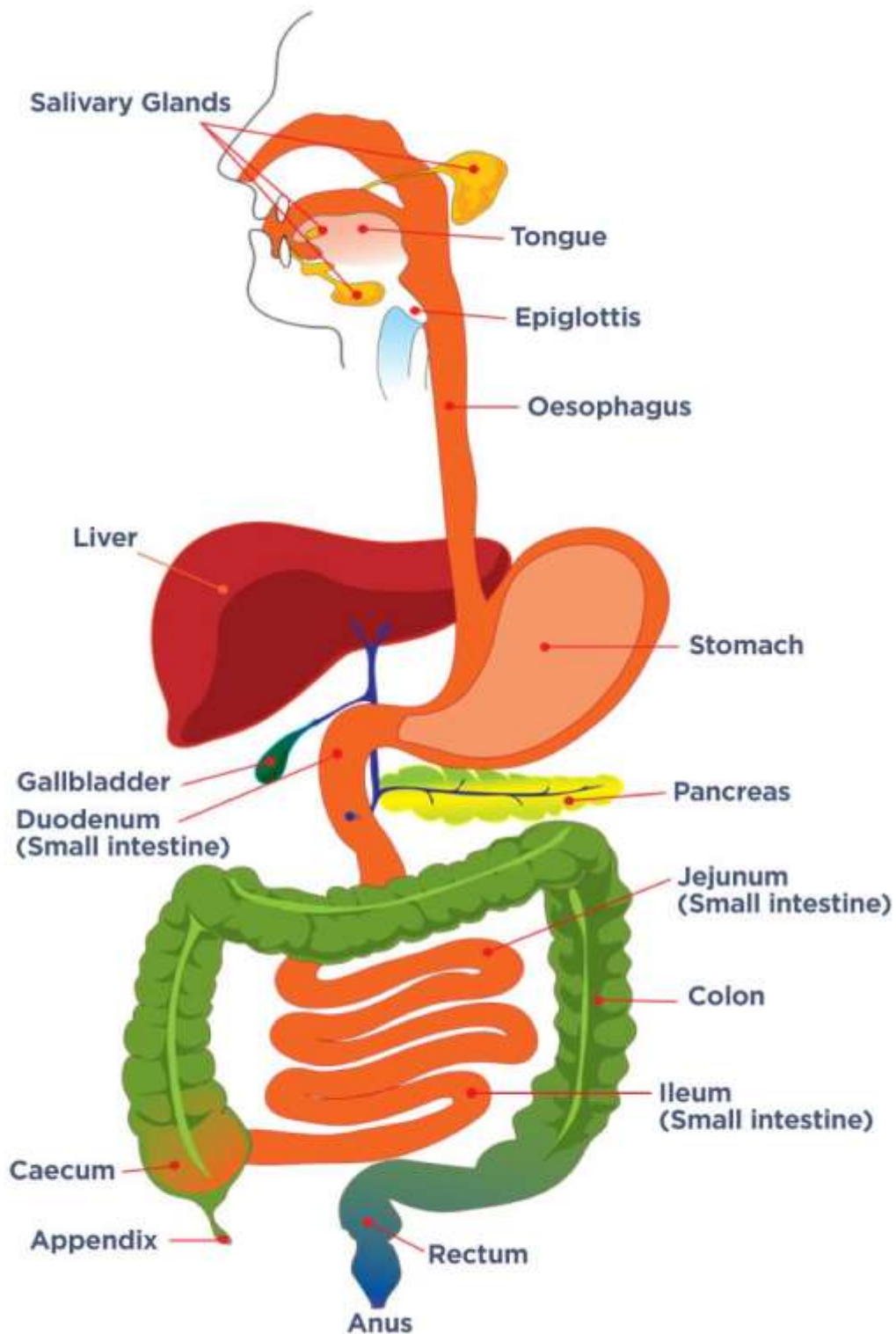


THE DIGESTIVE SYSTEM



This factsheet is about dumping syndrome

Our stomach should release food and drink slowly into the small intestine. If large amounts of food are released too quickly it alters hormone levels and causes the intestine to swell. Dumping syndrome describes a range of symptoms that occur when food is emptied too quickly from the stomach into the small intestine, filling it with undigested food that is not adequately prepared to allow efficient absorption.

Causes of dumping syndrome

Dumping syndrome is most likely to occur when patients who have an abnormal stomach size or structure eat foods that are rich in sugar. It is most commonly seen after surgery to bypass the stomach to help weight loss (bariatric surgery). It can also occur after surgical removal of all or part of the stomach (gastrectomy), most often carried out for ulcer disease or stomach cancer, or after surgery to remove part of the oesophagus or gullet (oesophagectomy). Dumping syndrome can also, rarely, affect patients with rapid gastric emptying due to other causes.

What are the symptoms of dumping syndrome?

These are often divided into “early” (occurring during or right after a meal) or “late” (occurring one to three hours after eating) although people often have both types of symptoms.

- **Early dumping syndrome symptoms:** these include nausea, vomiting, palpitations, sweating, bloating, cramping, diarrhoea, dizziness and fatigue.
- **Late dumping syndrome symptoms:** these include hypoglycemia (low blood sugar), weakness, confusion, hunger, sweating and dizziness.

How is dumping syndrome diagnosed?

The diagnosis of dumping syndrome is based on the development of symptoms in a patient with a history of stomach surgery although tests may be needed to exclude other conditions that have similar symptoms. These tests may include blood tests, endoscopy, ultrasound (to rule out gallstones) and/or gastric emptying studies. The latter is carried out by consuming a meal which has been tagged with a small amount of radiation and measuring the rate at which it empties from the stomach. If symptoms of hypoglycaemia (low blood sugar) are present, this may be confirmed by a glucose tolerance test (when a glucose drink is given and blood sugar tests collected over a few hours).

What treatment is available for dumping syndrome?

The main treatment involves dietary changes as most patients have relatively mild symptoms they respond well to this approach. In patients with low blood pressure after meals (which can cause a feeling of lightheadedness or sweating), lying down for 30 minutes may help. In cases where dietary changes have not been successful, or when symptoms are severe, medications are taken to slow the stomach emptying and movement of food into the intestine. Very rarely, if neither dietary changes nor medications are successful, surgery may be recommended.

Dietary changes

Advice is usually given by a dietitian and usually includes several measures to stop the stomach emptying so quickly:

- Eat smaller meals. You will need to eat more often – at least five or six times a day to get the nutrients that you need.
- Eat slowly and chew your food well to help prepare it for digestion, you may also find ground meat such as mince easier than steak or chops.
- Avoid sugary foods such as sweets, sugary breakfast cereals, honey, syrups and sugary drinks such as cola.

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- Avoid nutrient-rich drinks as the condition is often triggered by milk shakes or nutritional supplements. If you are struggling to maintain your weight ask your doctor to refer you to a dietitian.
- Eat more complex carbohydrates such as whole grains, pasta, potato, rice, wholemeal breads and unsweetened cereals.
- Eat more foods high in soluble fibre which slow the emptying of the stomach and prevent sugars from being absorbed too quickly. The following foods are high in soluble fibre: broccoli, brussel sprouts, carrots, nuts, oats, okra, peas, pears, prunes, pulses and soya beans.
- Eat a protein containing food with each meal. High protein foods include eggs, meat, poultry, fish, milk, yogurt, cheese, pulses and nuts.
- Avoid alcoholic drinks.

Medications

- Acarbose delays carbohydrate absorption and has been shown to help patients with late dumping symptoms.
- Octreotide is a synthetic form of somatostatin (a naturally occurring hormone in the body) and can have a beneficial effect by delaying stomach emptying and reducing the release of insulin and several gut hormones. Octreotide is a therapy used sparingly since this treatment can impair digestion.
- There are several newer medicines that are also beginning to be used to slow gastric emptying (many of these are also used to treat patients with diabetes); however, there is not enough evidence to make any recommendations yet.

Does dumping syndrome need to be monitored and, if so, how?

Once the condition has been diagnosed, a referral to a dietitian should be made. They will explain the general dietary changes required and tailor them to your needs. They may suggest you keep a food and symptom diary to check whether the dietary changes are having a beneficial effect. It is important that weight is monitored after making the necessary dietary modifications to ensure that sufficient calories are being eaten. If significant weight loss is experienced, this must be mentioned to the dietitian or doctor. If symptoms do not improve after dietary modification, ask to see your doctor again so that medication can be considered.

How can dumping syndrome affect you over time?

Post-operative dumping tends to improve with time and management involves dietary modification, with medications being reserved for severe cases or cases which do not respond to dietary changes.

What to ask your doctor about your dumping syndrome?

- Do I need any tests to confirm the diagnosis of dumping syndrome?
- May I see a dietitian to discuss what type of food I should be eating/avoiding?
- If dietary modification does not help my symptoms, which medication would you recommend?

What research needs to be done on dumping syndrome?

New medications for dumping syndrome are being developed and tested in clinical trials. This includes a new medication that works in a similar way to octreotide but may not have the same side effects. Initial results are promising but further trials are needed.

For more information about research in this area please contact Guts UK Charity on

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