

HOW DOES THE DIGESTIVE SYSTEM WORK?

The digestive system is composed of a series of hollow organs that form a tube from the mouth to the anus.

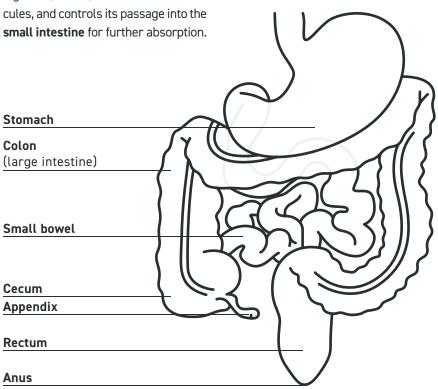
Every section of the digestive system has a specific, important function in food absorption and digestion.

The **esophagus** helps to transport food from the mouth to the stomach.

The **stomach** accumulates food, digests (breaks) it into small molecules and controls its passage into the

The **pancreas** and liver secrete substances that facilitate food absorption in the small intestine.

The final segment of the digestive system is the **colon (large intestine)**. Its primary function is to absorb water and undigested foods as well to evacuate the waste products of digestion.



WHAT IS DUMPING SYNDROME?

Dumping syndrome, also called rapid gastric emptying, occurs when food, especially sugar, moves too quickly from the stomach to the small intestine.

There are two types of dumping syndrome:



Early dumping syndrome

occurs 10 to 60 min. after a meal



Late dumping syndrome

occurs 2 to 3 hours
after a meal

WHAT CAUSES DUMPING SYNDROME?

Dumping syndrome is caused by a food storage problem in the stomach leading to rapid emptying of food to the small intestine.

In early dumping syndrome, food moves too quickly from the stomach to the small intestine, resulting in too much fluid in the intestine. In late dumping syndrome, food also moves too quickly to the small intestine, resulting in the fast absorption of glucose and thus an increase in the blood sugar level. The pancreas then produces too much insulin, making the blood sugar level drop rapidly (hypoglycemia) 2 to 3 hours after a meal.

WHAT ARE THE SYMPTOMS OF DUMPING SYNDROME?

Symptoms will vary depending on whether you have the early or late form.



Symptoms of

early dumping syndrome

appear approximately

10 to 60 min. after a meal.

- Nausea
- Vomiting
- · Abdominal pain and cramps
- Diarrhea
- Feeling of fullness (bloating) even after a small meal
- Sweating
- Weakness
- · Rapid heartbeat



Symptoms of

late dumping syndrome

appear approximately

2 to 3 hours after a meal.

- Hypoglycemia (low blood-sugar)
- · Sweating
- Weakness
- · Rapid heartbeat
- Dizziness
- Flushing

WHAT IS THE TREATMENT FOR DUMPING SYNDROME?

Treating dumping syndrome primarily involves a change in your diet. Sometimes, medications may help. On rare occasions, surgery is recommended.

In any event, it is necessary to get nutritional advice. Consult a nutritionist and speak to your physician.

Nutrition

The first step to reduce your symptoms is to change your diet.

Here are a few tips:

- Eat many smaller meals every day (4 to 6).
- · Eat and drink slowly, and chew well.
- Eat while seated or left semi-seated position.
- Avoid drinking liquids 30 to 60 minutes before and after meals.
- · Avoid very hot and very cold foods.
- Avoid stimulants such as coffee, tea, and alcohol.
- Avoid very high calorie beverages such as oral liquid nutritional supplements or milkshakes.



- Choose foods that contain proteins, soluble fibres and complex carbohydrates in the form of sugar (e.g., rice, whole-wheat bread, pasta).
 - Soluble fibre (e.g., contained in carrots, oats, bananas, potatoes and unsweetened compote) helps to slow the emptying of the stomach.
- Avoid monosaccharides (simple sugars) (e.g., candy, soft drinks, fruit juice).
- Thicken food consistency by adding pectin, guar gum (plant extract) or even oat bran.
- Some individuals find that lying down for about 30 minutes after a meal helps to reduce symptoms.

Medications

Your physician might prescribe octreotide (Sandostatin) if you have a form of dumping syndrome that is hard to control. This medication acts by slowing the emptying of the stomach and stopping insulin release. Speak to your physician.

Surgery

Even though surgery is seldom the treatment of choice, it may be recommended if your symptoms do not abate despite your following nutritional advice and taking medications. Speak to your physician for further information.



If you have any questions or concerns, speak to your nurse or physician.

Name Coordinates

NOTES

Editing:

Dr. Marie-Pier Bachand and Dr. Diane Langelier, gastroenterologists

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Service des communications

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