Dietary problems after surgery for stomach cancer

This information is about dietary problems people may have after surgery for stomach cancer. It may also be helpful to people who have had surgery for cancer of the gullet (oesophagus) or pancreas that involved removing part of the stomach.

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The stomach

The stomach is a stretchy, muscular bag and is part of the digestive system. The upper part of the stomach is joined to the gullet (oesophagus), and the lower part of the stomach is joined to the beginning of the small bowel (duodenum).

As food is chewed and swallowed, it passes down the gullet and into the stomach. The stomach churns up food and mixes it with gastric juices that help break it down into much smaller pieces. This is so our bodies can absorb the nutrients we need to give us energy and keep us healthy. The semi-solid food then passes into the small bowel, where it's broken down further and nutrients are absorbed. The gastric juices in the stomach help the bowel absorb some important substances from our food, such as vitamin B12, iron and calcium.

Surgery to the stomach

There are two main types of surgery for stomach cancer:

- Partial gastrectomy, in which only part of the stomach is removed.
- Total gastrectomy, in which the whole stomach is removed.

Other types of surgery on the digestive system to treat cancer of the gullet or pancreas may also involve removing part or all of the stomach.
Dietary problems after stomach surgery

People can have different types of dietary problem after stomach surgery. These problems can generally be divided into:

- early problems that happen straight away or soon after the surgery
- late problems that happen a few weeks or months after surgery.

Early problems after stomach surgery

Immediately or soon after the surgery, you may experience:

- feeling full after eating and drinking
- weight loss and malnutrition
- poor appetite
- indigestion and/or reflux (which can carry on for sometime after your surgery)
- dumping syndrome
- diarrhoea
- bilious vomiting.

Feeling full after eating and drinking

This is a sensation of fullness after meals and sometimes even after small snacks. The stomach acts as a storage chamber for food, and in response to the sight or smell of food, its muscle wall relaxes to accommodate a meal. This is controlled by a nerve called the vagus nerve.

If an operation has made the stomach smaller or if it is scarred, which makes it less able to stretch, the stomach won’t be able to hold as much. The vagus nerve may also have been cut or damaged during surgery. When the stomach’s capacity is reduced, food and drink enter and put direct pressure on the stomach wall, making it stretch (distend). This gives a feeling of fullness.

Sometimes eating smaller, more frequent meals may reduce the feeling of fullness.

It helps to avoid foods that are high in fibre, such as large portions of fruit, vegetables and wholegrain cereals, as these can make you feel full very quickly. Although it’s important to drink plenty of fluids, try not to drink a lot just before meals.

Weight loss and malnutrition

If you aren’t able to eat much because you feel full very quickly, you may find that you lose weight easily and may not absorb all the nutrients you need to keep healthy.

It’s useful to build up your energy by having small, frequent meals and supplement drinks. Your cancer specialist and dietitian can give you further advice on how to manage this problem.
Poor appetite

You may have poor appetite due to changes to the structure of the stomach after surgery. Surgery can also change the production of hormones, which help control appetite. Eating little and often may help to stimulate your appetite. You can ask your dietitian for further advice.

Indigestion

Indigestion or reflux (a backward flow of stomach juices or bile into the gullet) can happen after any stomach surgery. Avoid fizzy drinks, alcohol and spicy foods if you notice they make your symptoms worse.

Indigestion can also be caused by wind trapped in the digestive system. Wind can be reduced by drinking peppermint water or taking charcoal tablets. These are available from pharmacies.

Reflux can cause soreness and inflammation of the lining of the gullet. This can be reduced by antacid medicines, such as Gaviscon®, Maalox® and Aludrox®.

Your GP or cancer specialist can give you advice about reflux and prescribe antacid medicines for you.

Dumping syndrome

There are two types of dumping syndrome: early dumping syndrome and late dumping syndrome. Each of these has different causes and symptoms.

Early dumping syndrome

This usually happens within 30 minutes of eating a meal. You may feel dizzy or faint, and your heart may start to beat faster. These symptoms may last for about 10–15 minutes. Some people also have tummy cramps and diarrhoea.

After stomach surgery, the movement of food into the bowel may be quicker than it was before. The symptoms of early dumping syndrome happen when food enters the bowel quickly. This draws fluid into the bowel from the surrounding organs and tissues and causes a drop in blood pressure. The drop in blood pressure can make you feel faint.

Early dumping syndrome often gets better on its own over a few months. It can be reduced by:

- eating slowly
- choosing small, frequent, dry meals
- having drinks between meals, rather than during them.

It can also help to avoid foods that are high in added sugars. It’s important to eat some sugars, as these are a good source of energy (calories), so don’t cut them out of your diet completely. Try having them as part of a mixed meal, rather than as sugary drinks.
It can help to eat meals that are high in proteins (such as fish, meat and eggs) and starchy carbohydrates (such as pasta, rice, bread and potatoes). Resting for 15–30 minutes immediately after meals can also reduce the problem.

**Late dumping syndrome**

This usually happens a couple of hours after meals or when you have missed a meal. You may feel faint, sick and shak[y. Late dumping syndrome is caused by foods that are high in carbohydrate being released from the stomach into the small bowel. This causes a rise in blood sugar levels as the carbohydrate is absorbed.

Large amounts of insulin are released into the blood as a response to this. The insulin levels continue to rise after the blood sugar levels have begun to fall. The high insulin level causes the symptoms.

If you have this problem, follow the same advice for early dumping syndrome. Have small, regular meals and snacks that are low in processed carbohydrates (such as sugar), but that contain starchy carbohydrates (such as bread, potatoes, pasta or rice). If you feel the symptoms coming on, taking glucose tablets or having a small snack may help you feel better. Eating food and drinking fluid at separate times may also help prevent late dumping syndrome.

If your symptoms continue or are severe, your doctor may prescribe a medicine such as octreotide, or a similar drug.

**Diarrhoea**

Diarrhoea can happen after any type of stomach surgery, but it's more likely after surgery involving the vagus nerve. If the vagus nerve has been cut during surgery (a vagotomy), there may be a strong feeling of needing to open the bowels urgently. This can be quite upsetting.

Diarrhoea can happen in short episodes for a few days or weeks after surgery, before the bowel returns to normal. Everyone is different, so it's difficult to predict how long it may last or how many times a day you'll get diarrhoea. Some people may have diarrhoea once a day, while others may have it a few times a day.

Taking an anti-diarrhoea drug called loperamide (Imodium®) regularly in the morning can sometimes help.

As the diarrhoea is due to the effects of the surgery, it may not be possible to reduce it by changing the foods you eat. If you find that some foods particularly affect your bowel, it may help to avoid them, but it's best not to exclude too many foods from your diet.

Let your doctor or specialist nurse know if your diarrhoea doesn't improve, as they will be able to give you advice.
Bilious vomiting

This usually happens first thing in the morning. People find they have stomach pain and a feeling of fullness when they wake up. This is relieved by vomiting clear fluid, which has some dark brown fluid (bile) in it.

Vomiting in this way can be very distressing, but it may only last for a short time. The cause is quite complicated, and it usually happens after part of the stomach has been removed (a partial gastrectomy).

Some drugs that affect the digestive system may help control bilious vomiting. These include domperidone (Motilium®) and metoclopramide (Maxolon®). However, some people find that none of the treatments they are given are effective, so they may need to learn to live with the condition.

If the symptoms are severe and frequent, reconstructive surgery is sometimes possible. Your surgeon can discuss the possible benefits and risks of this with you.

Many of the problems mentioned here improve gradually over time. You may need to make long-term changes to your daily eating patterns, such as eating smaller meals more regularly, to reduce or control these problems. A very small number of people will find it difficult to eat enough food and may need to be fed artificially via a tube (enteral feeding). Tube feeding is usually only needed for a short time. Your doctor will discuss tube feeding with you if necessary.

Your dietitian and clinical nurse specialist can give you further information, support and advice about any of these problems.

Late problems after stomach surgery

Your surgeon will monitor you after your treatment and will see you on a regular basis, usually every 6–12 months. This is because late side effects can occur months or years after treatment.

Your specialist will investigate any problems that happen later on to see whether they are caused by your surgery.

Late problems after stomach surgery can include:

- calcium malabsorption
- anaemia caused by iron and vitamin B12 deficiency
- narrowing of the join between the gullet and the small bowel after surgery (anastomosis), which can make it difficult to swallow food.

Calcium malabsorption

After surgery to remove the stomach (gastrectomy), it can be difficult for people to absorb enough calcium from their diet. This can cause a condition called osteomalacia, which is a weakening of the bones. Osteomalacia can be prevented or reduced by taking vitamin D and calcium supplements, as prescribed by your doctor.
Anaemia

Anaemia means the blood is not carrying enough oxygen. This can happen for several reasons. The most common type of anaemia is called iron-deficiency anaemia. It happens if you don’t have enough iron in your diet or if you aren’t able to absorb iron from the food you eat. Iron is the main component of haemoglobin (Hb), which carries the oxygen in the blood.

There can be several possible reasons for an iron deficiency after stomach surgery:

- Changes in the way iron is converted from food. This is due to a reduction of stomach juices.
- Food moving more quickly through the bowel, reducing the time for iron to be absorbed.
- If a small bowel (duodenal) bypass has been done, the reduced surface area of the bowel means less iron can be absorbed.

Anaemia that’s due to iron deficiency can be treated with iron supplements.

Lack of vitamin B12, which is needed to make red blood cells, can be another cause of anaemia. This can happen if part or all of the stomach has been removed, because the stomach produces a protein called the intrinsic factor, which is needed for the absorption of vitamin B12.

After stomach surgery, the body is no longer able to produce intrinsic factor, which leads to less vitamin B12 and folic acid being absorbed. This can be treated with injections of vitamin B12.

If you’ve had all of your stomach removed, you will need to have vitamin B12 injections for the rest of your life. These will be given to you every few months by your GP. If only part of your stomach has been removed, your doctor will do a blood test to check your levels of B12 from time to time in case you need injections.

Narrowing of the join (anastomosis)

When the whole stomach is removed, the lower end of the gullet (oesophagus) is joined to the upper end of the small bowel. The join is called an anastomosis. Occasionally the anastomosis can become narrowed, which can make it difficult to swallow food. This is known as a stricture.

If you find it is getting difficult to swallow food, you may become worried that the cancer has come back. It’s a good idea to see your specialist as soon as possible, so that they can do an endoscopy to look into your gullet. If you have a stricture, the doctor may be able to stretch it, making it easier for you to eat. Or it may be possible to put a tube (stent) into the narrowing to keep it open.

If you are having problems swallowing, you may find you begin to lose weight quite quickly. It can help to try eating soft or puréed foods and have nourishing drinks. Rarely, you may need to be fed artificially via a tube (enteral feeding) for a short time. Your doctor, specialist nurse or dietitian will give you more information about this.
Your feelings after stomach surgery

A lot of people find it hard to cope with dietary problems after stomach surgery. You may have different feelings and emotions. Some people feel depressed because they don’t enjoy food or mealtimes any more. Others find it hard to adjust to the change in their body image because of surgery and/or weight loss.

Many people find that, although their dietary problems may not disappear completely, they learn to manage them so they aren’t such a problem. Family and healthcare professionals can give support with this. It’s often helpful to contact your hospital dietitian as soon as any problems occur. They are experts in dealing with dietary problems, whatever the cause. They will be able to give you specialist advice about your diet and how to cope with any problems.

Useful organisations

CORE
www.corecharity.org.uk
Previously known as the Digestive Disorders Foundation, CORE produce information and leaflets on common digestive diseases and illnesses.

The Oesophageal Patients Association
www.opa.org.uk
An organisation of people who have had, or still have, cancer of the oesophagus. Offers advice and support to patients and their families, including dietary information.

References and thanks

This section has been compiled using information from a number of reliable sources, including:


If you’d like further information on the sources we use, please feel free to contact us.

Thanks

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Thank you to all of the people affected by cancer who reviewed what you’re reading and have helped our information to grow.

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