NHS
Imperial College Healthcare
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Upper gastrointestinal surgery

Surgery for cancer of the stomach (gastrectomy)

Information for patients, relatives and carers

Introduction

This leaflet is designed to answer some of the questions that you, or those important to you, may have about surgery for cancer of the stomach (also known as gastrectomy). It is not meant to replace the consultation between you and your medical team but aims to help you understand more about what is discussed.

Here, we explain some of the aims, benefits, risks and alternatives to gastrectomy. We want you to be informed about your choices to help you to be fully involved in decisions.

What is a gastrectomy?

The stomach is in the upper left-hand side of the tummy area (abdomen). It is a stretchy, muscular bag, which stores food and helps to break it down (digestion).

A gastrectomy is removal of part of, or all of the stomach. How much of your stomach is removed will depend on where the cancer is.

Whatever type of gastrectomy you have, you'll need to make changes to your diet. You'll probably have to eat frequent small meals, rather than 3 large meals a day, for a fairly long time after having a gastrectomy.

However, over time, your remaining stomach (your "new stomach") and small intestine will stretch, and you'll gradually be able to eat larger, less frequent meals.

Types of gastrectomy

- a **subtotal gastrectomy** involves removal of around three quarters of the stomach, where the tumour is
- a **total gastrectomy** involves removal of the whole stomach
- in some unusual cases, tumours in the upper stomach can be operated on by removing the top half of the stomach. This is rarely done

In all of these operations, we remove the tumour to reduce the chance of the cancer coming back. We also remove the lymph glands around the stomach. Lymph glands are part of the body's immune system, which protects us from infection and disease.

We analyse samples of what we remove. This gives us more information about the cancer and helps plan for further treatment.

The operation can be performed using open surgery or keyhole surgery (also known as laparoscopic surgery).

Gastrectomy is a major operation, performed under general anaesthetic. It takes between four to seven hours to perform. Your surgeon will discuss with you the most appropriate approach to remove the cancer.

Your stomach before and after surgery

Your surgeon can draw a diagram below to help explain your surgical procedure, and show what your stomach will look like before and after the surgery.

Before gastrectomy:

After gastrectomy:

What are the benefits of the surgery?

Gastrectomy is considered the best treatment for potentially curable stomach (gastric) cancer. It can give relief from symptoms and offers the best chance of a long-term cure.

Is there an alternative?

Chemotherapy followed by surgery (gastrectomy or sub-total gastrectomy) is considered the best treatment for potentially curable gastric cancer.

Chemotherapy alone is considered a palliative (non-curative) option. This can help manage the symptoms or slow the cancer but will not cure you.

There are a small number of very early cancers that may be treated with specialist equipment. A flexible camera passes down the food pipe into the stomach (endoscopy). If it may be possible to treat your cancer in this way, your consultant will tell you.

What are the risks?

This is a major operation and there are risks attached to it. Make sure you ask your surgeon about possible complications and all the questions you need.

The possible risks are:

- a leak in the join between the remaining stomach and the small bowel (after a subtotal gastrectomy), or the oesophagus (gullet) and the small bowel (after total gastrectomy). In most cases, the leak will heal by itself but takes around two to six weeks to do so. Rarely, another operation is needed to close the leakage.
- chest infections and pneumonia (these are common complications of many operations). There are breathing exercises that you can do before and after the operation to reduce the risk. Stopping smoking will significantly reduce your risk.
- heart problems including a heart attack or abnormal heart rhythms. This is due to the strain that the operation puts on the heart.
- infection of your wounds or drain sites.
- blood clot in your legs (deep vein thrombosis) or in your lung (pulmonary embolus), or both.
- bleeding. This can usually be managed by blood transfusions. In rare cases it may be necessary to re-operate to stop it.
- as with all major surgeries, there is a risk of death.

Complications can be serious and delay your recovery. Also, it may not be possible to remove the cancer if it is more advanced than the staging investigations suggested.

What are the possible side effects?

Possible side effects

You may have some or all these side effects. They are listed here in alphabetical order.

Acid reflux – because of the changes in your digestive system, stomach acid can travel up towards the throat (reflux). This causes heartburn, a burning pain in the chest. This can be treated with antacid medications. Many patients need to sleep more upright after surgery to avoid acid reflux. You can buy wedges (fixed and inflatable) and adjustable beds that make this easier. These are VAT free if they are needed for medical reasons. Please discuss this with your CNS/key worker.

B12 absorption – it will not be possible to absorb vitamin B12 after the removal of the whole stomach. You will need vitamin B12 injections every three months after a total gastrectomy. This is not usually needed after a sub-total gastrectomy.

Diarrhoea – this quite common due to the changes in the shape of your digestive tract. The diarrhoea can usually be controlled with changes in eating behaviour, as well as medication. It improves over time.

Dumping syndrome – this is due to food entering parts of the bowel too quickly. It leads to either a drop in blood pressure or a reduced blood sugar level. This can make you feel light-headed, sweaty or have an urge to have a poo. It can be improved by:

- eating slowly
- eating small amounts at regular intervals (every 1 to 2 hours)
- avoiding drinks or liquids around mealtime
- reducing the sugar in your diet

Low mood – it is quite common for people who have had this surgery to feel a bit down when they first get home. It may be a frightening and unsettling time. You may find it helpful to talk about your feelings and concerns with someone who specialises in dealing with your condition, such as your CNS/key worker. They will be able to offer support, advice and guidance.

Reduced appetite – You are likely to have a small appetite after surgery. You will have a narrow tube replacing your stomach. This means you will not be able to eat large meals and you will feel full quite quickly. So, you must have small and frequent meals. It is important to keep trying to eat a bit throughout the day, even if you do not feel hungry. Your recovery will benefit if you maintain your weight.

So, remember ‘little and often’. Though avoid eating late at night as this will give you indigestion.

Your capacity to eat larger meals may return slowly over 9 to 12 months.

Taste changes – many patients say their taste changes after their operation. Your food may have no taste or taste very different from what you expect. This can last for a few weeks after the surgery. Many people prefer savoury foods at this time. Try experimenting with different types of food and condiments.

Tiredness and fatigue – you will feel very tired at first when you leave the hospital, but this is normal. Try to get up and dressed in the morning and keep active around the house. You may need a rest in the middle of the day.

Weight loss – you may lose up about 10% of your weight before surgery. For example, if you weighed 10st before surgery, your weight might drop to 9st. This is very common. It is due to a combination of factors. However, it is important it does not happen too quickly as it can make you very weak. If you find yourself losing weight too fast and struggling to eat you must call your CNS or key worker or dietitian for advice.

For more information on possible side effects, please speak with your surgical team.

What can I do to get ready for my operation?

There are a few things you can do to prepare for the procedure, and these include:

- stop smoking — this will help to reduce the risks of breathing problems during and after your operation. If you would like further advice about stopping smoking, you can speak to your GP or practice nurse
- eat the foods you enjoy. Unless advised otherwise, gaining some weight is advisable. The dietitian will advise you on this
- try to limit your alcohol intake. There is support available if you need it. If you are not sure whether the amount of alcohol you drink is within the recommended guidelines, please speak with your CNS/key worker
- do some gentle exercise to improve your general fitness
- you will be taught breathing exercises that you will be encouraged to do from the day after the operation. Keep practicing these before the operation so you get used to them. It will help your recovery

What happens before the operation?

If you have had chemotherapy, we recommend waiting for at least four weeks after completing chemotherapy before having surgery, to allow the body to recover.

Before the operation we will ask you to attend a pre-assessment clinic for blood tests, lung function tests and an echocardiography (an ultrasound scan of the heart that uses sound waves to build up a picture of your heart).

What do I need to do on the day of my operation?

You must not eat for six hours before the operation. You can have water and other clear, non-fizzy liquids for up to two hours before the operation.

Keep taking your regular medications as usual, unless you have been advised otherwise by your surgeon or anaesthetist. If you are diabetic, you will be started on an insulin drip.

Most patients are admitted on the morning of their operation. You will be contacted beforehand by the administrative team with information on what to do and where to go.

- you will need to arrive at 06:40am
- you should come to Hammersmith Hospital, A8 ward, 4th Floor, Block B

Consent

You will be asked for your consent on the day of your surgery before the hospital staff begin your surgery. Your doctor will carefully explain what's involved in the procedure at a clinic appointment before surgery.

Details will vary according to each individual case. No medical treatment can be given without your written consent.

If you do not understand what you have been told, let the staff know straight away, so they can explain again. Some people find it useful to write a list of questions before this appointment and to have a relative or friend with you for support. All clinical communications copied to your GP may also be sent to you, at your request.

Could my operation be cancelled?

If a bed is not available in the high dependency unit (HDU) for your recovery after your operation, it is possible that we will need to cancel your operation. If this happens, we will arrange a new date for your operation as soon as possible.

Will I go back to the ward after the operation?

You will be admitted to the HDU for at least 2 to 3 days after the operation. Most patients will be awake and able to breathe for themselves within hours of the operation.

Who will be looking after me?

There will be a large team looking after you. The doctors and nurses will be supervising your recovery. Other members of the team include:

- the physiotherapist, who will help with your breathing and mobility. With their help, you will be expected to
    - sit out in a chair within 12 hours of your operation

    - walk around your bed on day one after the operation
    - gradually increase your mobility so that you can walk assisted along the ward corridor within two to three days.
- the dietitian, who will advise you on what to drink and eat

How will I be monitored after surgery?

We will use tubes and lines to monitor you closely and promote a safe, quick recovery. These are routine, so try not to be alarmed by what they look like. The following tubes may be used:

- a central line – a special intravenous tube inserted via a large blood vessel to prevent dehydration and to allow us to monitor your fluid needs. This is usually in your neck or if not near your groin
- a naso-gastric (NG) tube – a tube attached through your nose. It drains fluid out of the new stomach and into a bag
- wound drains — one or more in the abdomen to stop blood, bile and tissue fluids collecting around the site of the wound
- catheter line – inserted into your bladder to monitor the amount of urine you are passing
- an epidural catheter – for pain control. See 'How will my pain be controlled' below

If there are no complications, all these tubes and lines will be removed from the third day to the fifth day. By the sixth post-operative day, all tubes, drains and lines should be out.

How will my pain be controlled?

Normally an epidural catheter will be inserted into your back. The epidural numbs all the pain nerves supplying the abdomen and controls post-operative pain.

Adequate pain control will let you:

- take deep breaths
- cough effectively
- mobilise

If you are unable to do any of these things, you may be at higher risk of developing a chest infection or deep vein thrombosis (DVT).

You can expect some discomfort when you move or cough. But if you are in any pain, you must tell the nurse looking after you.

After 5 days, the epidural catheter will be taken out and you will receive pain medication by mouth.

There are some alternatives to an epidural that can be used. The anaesthetist will go through this with you if these are proposed.

When can I eat and drink again?

Subtotal gastrectomy

- you will start fluids on the day of the operation
- you should be on a liquid diet by the third day
- you should be on a mashed diet on the fifth day

The dietitian will advise you on how best to eat after your operation.

Total gastrectomy

- you will be asked to have only sips of water for the first three days after the operation.
- you will have a special X-ray on the third day. You will be asked to swallow a dye (liquid barium) to ensure that there is no leak at the new join between the gullet and the bowel.
- you will be allowed to have clear fluids when it is confirmed that there is no leak.
- you will move to a liquid diet by the fifth day after your operation.

The dietitian will advise you on how best to eat and drink after your operation.

Sometimes, patients may also be fed with a small feeding tube which will be inserted into the bowel during the operation. This is called a feeding jejunostomy tube.

When will I be able to sit and walk after my operation?

You can start trying to become active on the first day after your operation. In fact, it is important to become active as soon as possible. Doing this will help prevent post-operative complications, like chest infection and deep vein thrombosis (DVT).

So, as soon as you can, try your best to sit out in a chair. Do this for at least two hours in the morning and two hours in the evening.

Sitting up helps to keep the lungs open. It prevents lung collapse and pneumonia.

Walking helps keep blood in your veins flowing. It prevents clots forming in your legs and lungs.

So, from the first day, you must also take a few steps around the ward. Try to gradually increase the distance you walk every day.

To prevent clots, you will be:

- encouraged to wear support stockings
- given one dose of blood thinning medication (heparin) every day

When can I go home?

If all goes well and there are no complications, you will usually be able to go home around a week after your operation. This will be when:

- all the observations and blood tests are within the normal range
- you are walking independently
- getting out of bed
- tolerating a liquid diet

What happens after I go home?

Gastrectomy is a major operation. It may take six months up to a year to completely recover. It may be even longer before you feel back to your baseline.

Light exercise

We encourage light physical activity after your operation. You should plan to take short walks for about 10 minutes three times a day. Gradually increase the distance during the first four weeks after your operation until you are back to your normal level of activity. You should be as active as possible to prevent clots forming in your legs.

Ongoing review

Your team will continue to review your progress regularly until you no longer require support.

It is important that you contact your CNS/key worker if there is something you would like to discuss before your next follow-up appointment.

Side effects and weight loss

It is normal to experience loss of appetite and a feeling of fullness as described previously. It is also common to experience nausea and diarrhoea, as well as taste changes. Many of these symptoms can be improved with medications. As a result of these symptoms, you can expect to lose weight. Losing about 10% of your weight, so 1st for every 10st, is normal and to be expected.

Clinic appointments

- bring a list of all medicines you are taking to all your clinic appointments.

- if you have any questions at all, please ask your surgeon, oncologist or CNS/key worker. It may help to write down questions as you think of them so that you have them ready.
- it may also help to bring someone with you when you attend your outpatient appointments.

Ongoing support

We are all individuals, and cope in different ways, and need different lengths of time to adjust to a cancer diagnosis. Your medical team is here to support you. You may want to discuss your worries or concerns with your clinical nurse specialist/key worker who can provide help and advice.

Further sources of support and information

Macmillan cancer navigator service at Imperial College Healthcare NHS Trust

This is a single point of contact for cancer patients at Imperial College Healthcare NHS Trust, and their family, friends and carers. The service is here to help you to navigate your care and resolve queries that you may have. Our Navigators can access information about your appointments, connect you to appropriate services and signpost you on to further support. They can also book you in for a telephone call back from your Clinical Nurse Specialist (CNS) if you have a question that needs clinical input.

The service is open Monday to Friday 08:30 to 16.30 excluding bank holidays. (The service is closed for training between 14.00- 14.45 on Thursdays.)

Call: **020 3313 0303**

Macmillan cancer information and support service at Imperial College Healthcare NHS Trust

The Macmillan cancer information and support service offers free support and information to anyone affected by cancer, including family and loved ones. The service has physical centres at Charing Cross and Hammersmith Hospitals, and also offers virtual and telephone support.

When you call or visit you can speak to one of the Macmillan cancer team one-on-one about whatever matters most to you. You can sign up to a range of weekly virtual groups that provide the opportunity to connect with other people with cancer in a relaxed environment. You can also speak to our Macmillan welfare and benefits adviser, who can offer patients of the Trust tailored advice on additional financial support.

The service is open Monday to Thursday (excluding bank holidays), with various drop-ins available within our physical centres. For more information please call us on **020 3313 5170** or email **imperial.macmillansupportservice@nhs.net**

Maggie's West London

Maggie's is a cancer charity that provides the emotional, practical and social support to people with cancer and their family and friends.

The centre offers a calming and beautiful space, a professional team of support staff, and the opportunity to talk and share with a community of people who have been through cancer too.

Maggie's centres are warm, friendly and informal places full of light and open space, with a big kitchen table at the heart of the building. Maggie's West London is located in the grounds of Charing Cross Hospital but is independent of our hospital.

The centre is open Monday to Friday, 09.00-17.00. For more information, please call **020 7386 1750**.

Macmillan Support Line

The Macmillan Support Line offers confidential support to people living with cancer and their loved ones. This support line is a national line provided by Macmillan and is independent of our hospital.

The Support Line is open every day, 08:00 to 20:00. Please call: **0808 808 000** or visit www.macmillan.org.uk

How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3312 7777** (10.00 – 16.00, Monday to Friday). You can also email PALS at imperial.pals@nhs.net The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to complain by contacting our complaints department:

Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street
London W2 1NY

Email: ICHC-tr.Complaints@nhs.net

Telephone: **020 3312 1337 / 1349**

Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or in alternative languages. Please email the communications team: imperial.communications@nhs.net

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