An operation to remove all or most of the stomach is the most common treatment for cancers that have not spread beyond the area of the stomach.

Many patients with a stomach cancer at the junction of the oesophagus and stomach (oesophagogastric junction) are offered pre-operative chemotherapy. This is given prior to an operation and has been shown to improve the long-term survival rate. The chemotherapy given can vary but this will be discussed with you by the oncology specialist.

The operation to remove a cancer of the stomach is major surgery and may not be suitable for all patients. A number of investigations may be needed before an operation to make sure you are fit enough to make a good recovery.

Investigations you may need before surgery:

- Blood tests - It is routine to have blood tests to check your kidney function and general health.
- ECG (Electrocardiogram) and Lung function tests – These tests are performed to check how well your heart and lungs are working in order to make sure you are fit enough for surgery.
- Anaesthetic review- usually in the preadmission clinic you will see an anaesthetist to discuss the anaesthetic and pain relief following the operation.

Preparing for surgery

In the weeks before your operation there are a number of things you can do to prepare. Firstly remember to speak to your family and arrange any support or help you may need afterwards.

Secondly try to eat well and take some regular light exercise on a daily basis. This can just be a brisk walk outside or cycling for twenty minutes.

If you are a smoker it will greatly benefit you to stop temporarily, or for long term health permanently.

If you regularly take Aspirin, Warfarin or Clopidogrel you may be asked to stop these before surgery - speak to your surgeon about this in clinic.

What the surgery involves

There are different ways of carrying out the operation depending on the size and position of the cancer. Your consultant surgeon will discuss which type of operation is most suitable for you.
Surgery for cancer of the stomach (Gastrectomy)

The type of gastrectomy depends on the exact site of the cancer within the stomach. Most cancers that are in the highest part of the stomach (proximal part, nearest to the oesophagus) are treated by removing the entire stomach: a total gastrectomy. If the cancer is near the exit of the stomach (distal part) a partial (subtotal) gastrectomy is performed. A partial or subtotal gastrectomy involves removing at least 50% to 75% of the stomach.

Two types of Gastrectomy – Partial (Subtotal) and Total

Occasionally the upper part of the stomach is removed only: this is called a proximal gastrectomy.

The type of operation you need will be discussed with you by your surgeon. The benefit of surgery is that removal of the cancer is the only means of achieving a possible cure. By removing the main cancer, symptoms such as difficulty with swallowing or bleeding can also be relieved.

Laparoscopic Gastrectomy

In some instances your surgeon may recommend that you have the operation through small keyhole incisions rather than a large incision in the abdomen. This method is not for everyone but can result in a quicker recovery. It generally depends on the position and stage of the tumour and the patients overall health and weight. If you are keen on this method for your operation please speak to your consultant.

Palliative Gastrectomy

This is where part of the stomach is removed (usually a partial gastrectomy) to improve symptoms rather than to remove the tumour. It is only done if we expect that the operation will improve your symptoms. This type of operation will not cure the cancer and it will not have any effect on the progress of the disease. Should a palliative gastrectomy be considered it will be discussed with you at length by the surgeon and oncologist. Usually you will be offered chemotherapy treatment after a palliative gastrectomy. Again this will be discussed with you if required.

Risks involved with surgery

Surgery of the stomach is a major operation and the full recovery period after surgery can take up to 6 months depending on the individual. Before the operation your surgeon will discuss the risks associated with your surgery with you. The mortality risk (or risk of death) nationally in the UK is around 7%. At the Norfolk and Norwich the risk is lower (2%) but this is still a serious risk.

A list of the possible risks are described below:

Chest problems

Any operation near the diaphragm will affect breathing afterwards; chest infection is a common occurrence after gastric surgery. About a quarter of patients will require antibiotics for this. A smaller number (1 in 10) will have a severe chest infection that is likely to require you to spend time on the critical care unit. If you have chest problems to start with (asthma, COPD or smoking-related chest problems) a chest infection after the operation can be severe and life-threatening.
Bleeding

Bleeding can occur with any operation; it is uncommon for excessive bleeding to occur with gastric surgery but occasionally a further operation may be required if bleeding continues in the days immediately after surgery. A blood transfusion for blood loss during surgery is commonly used in about a tenth of patients. If you have concerns about a blood transfusion please let your surgeon and anaesthetist know before the operation.

Infection

Infection of the wound or deep-seated infection in the abdomen is another risk. Any infection can usually be treated easily with antibiotics. Occasionally, for deep seated infection, a small drain is placed under local anaesthetic. These drains will stay in for a few days until the infection is resolved.

Anastomotic leak (from where the oesophagus or stomach is re-joined to the intestine)

Gastric surgery involves joining a pouch of small intestine to the lower end of the oesophagus or remaining part of the stomach. This is usually done with a stapling device. At day 5 after the operation an X-ray is often performed to check the join. Occasionally the join can leak. The risk of this is about a 1 in 20 chance. In some cases this resolves with time but a large leak can be life-threatening and may involve further surgery.

Chances of cure

The success of the surgery in terms of cure is dependent on how early the cancer has been detected. The removed part of the stomach is sent to the laboratory and examined to identify the stage of the cancer.

The stage of cancer means how far it has grown out from the layers of the stomach into the surrounding lymph nodes and structures.

Sometimes more treatment such as radiotherapy and/or chemotherapy is needed after surgery to help to reduce a recurrence of the cancer. Your consultant will discuss this with you after the operation if it is appropriate.

What to expect whilst you are in hospital

Most people are in hospital for 7 – 14 days. If there are complications, your stay may be longer.

Depending on the anaesthetist’s opinion you will either go straight back to the ward after surgery or you may go to the high dependency unit for a period of time. Some people will spend 24 hours in the critical care complex after surgery though this may be longer. Afterwards you will go back to the surgical ward (Gissing ward).

Pain Control

After a major operation, you may experience some discomfort. This is usually controlled by the epidural method of pain relief. This involves inserting a thin plastic tube in your back just before the operation. It is attached to a pump to give you continuous pain relieving medication until you are ready to take tablets. The anaesthetist will discuss this with you before the operation. It is important to make sure you have adequate pain relief so you can move around and cough to prevent complications.

The physiotherapists will work closely with you to help your lungs recover and prevent breathing complications. This is the most important part of your recovery process.
**Wounds and Drains**

There will be a drain coming from the wound. The drains are placed to allow fluid to drain from the wounds. They are removed once the fluid stops draining.

You will have a urinary catheter placed in to your bladder to drain urine until you are able to walk to the toilet (after the epidural has come out).

You may also have a small tube down your nose to drain any digestive fluids until the join (anastomosis) heals.

**Feeding Tube**

After the operation, the new join (anastomosis) of the oesophagus and stomach needs time to heal.

You may have a feeding tube, (jejunalostomy tube) placed into your intestine during the operation. This allows liquid feed to be given straight in to your bowel until you are able to start eating and drinking.

Once you are able to eat and drink the feeding tube will be used less and finally stopped.

The dietician will see you regularly before and after your surgery to advise you about your diet and give you advice about meals. Please do not hesitate to ask the dietician any questions as it is important that you know what type of food you should be eating and when.

**After you go home**

Your recovery will continue after you go home. We will see you regularly in clinic and, in addition you can ring at any time for advice.

There is a separate leaflet called ‘after surgery’ which explains many of the issues in detail.

You will need help and support after getting home - think about this before coming in to hospital for your operation.

**Useful contacts for further information**

**Big C Cancer Information Centre**

NNUH, Colney Lane, Norwich, Tel: 01603 286112, email: cancer.information@nnuh.nhs.uk

**The Oesophageal Patients Association**

Helpline: 0121 704 9860
9 am – 5pm Mon – Fri
Website: www.opa.org.uk

**Macmillan Cancer Support**

3 Bath Place, Rimington Street
London, EC2A 3JR
Freephone: 0808 808 0000
website: www.cancerbackup.org.uk

**Jane Tallett BSc**

Upper Gastrointestinal Nurse Specialist
Tel 01603 288845

**Mr Michael Lewis MS FRCS**

Consultant UGI surgeon
Tel: 01603 287583

**Mr Edward Cheong MD FRCS**

Consultant UGI surgeon
Tel: 01603 286635

**Mr Hugh Warren FRCS**

Consultant Surgeon, QE Hospital