



Waitemata
District Health Board

Best Care for Everyone

The Ivor Lewis Operation

A guide for patients



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Introduction

Welcome to North Shore Hospital

Coming into hospital may be a new experience for you. Understanding what happens during your stay will make your experience more pleasant and assist in your recovery.

This booklet is for patients who are having an Ivor Lewis operation. It aims to support what has been explained to you about getting ready to come to hospital, your hospital stay, your operation and recovery afterwards. It is important to remember that, because people are all different, this booklet cannot replace the information given to you by your specialist who knows you.

There may be words or phrases in this booklet that you do not clearly understand. Please ask your doctor or nurse to explain anything you are not clear about.

The staff at North Shore Hospital aim to make your stay in hospital safe and comfortable. Please don't hesitate to contact us if you have any queries regarding this information and your operation.

The Ivor Lewis operation

An Ivor Lewis, or oesophagectomy, is a major surgical operation to remove part of the oesophagus. It is done mostly to treat cancer of the oesophagus. The Ivor Lewis operation is named after the surgeon who developed it in 1946.

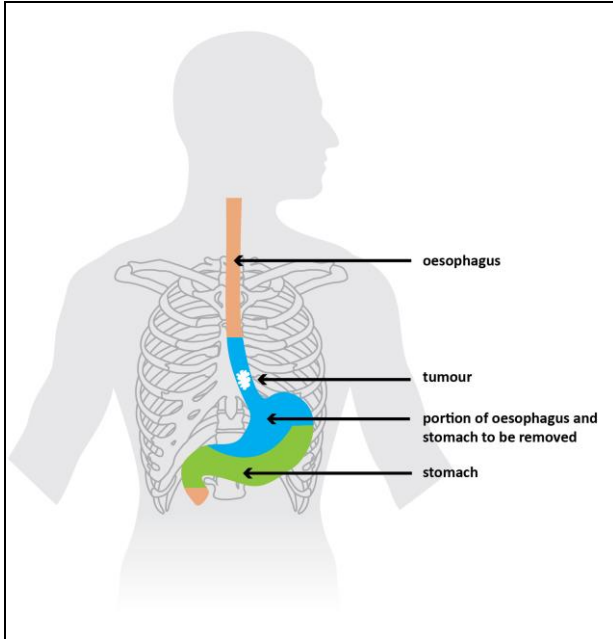
As with all operations, there are risks and possible complications. Because an Ivor Lewis is a major operation, the risks and complications can be serious. It is important that you discuss with your surgeon how these risks relate to you individually.

The oesophagus

The oesophagus is part of the digestive system. It is a muscular tube approximately 25 to 30 cm long and, with muscle contractions, it carries food and liquids from the mouth to the stomach. The part where the oesophagus joins the top of the stomach is known as the *gastro-oesophageal junction*. At the gastro-oesophageal junction there is a ring of muscle (sphincter) which helps prevent stomach contents from refluxing back up the oesophagus.

Most people with oesophageal cancer find out about it after a gastroscopy to investigate why they are having difficulty swallowing food (dysphagia). The cancer starts to block the oesophagus which results in food getting stuck. The cancer can also affect the muscle contractions of the oesophagus, making it difficult to swallow food. The diagram on page 6 shows a tumour in the lower third of the oesophagus near the gastro-oesophageal junction.

Before Surgery



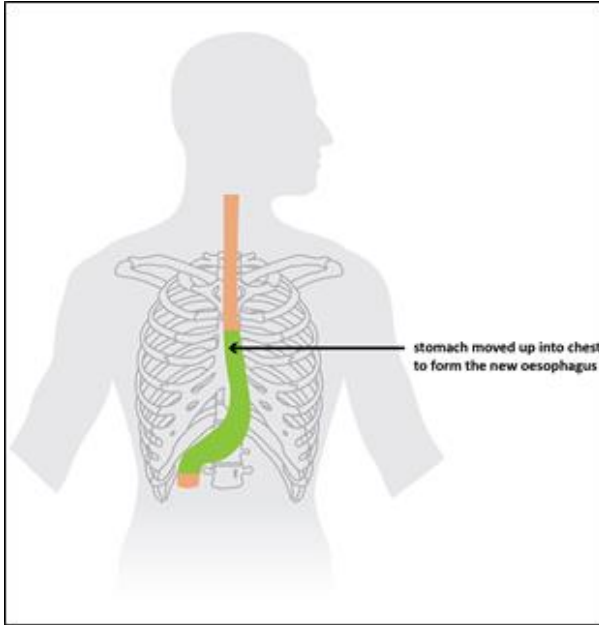
The operation for oesophageal cancer

The operation for oesophageal cancer is called an *Ivor Lewis* operation. This involves an incision in both the upper abdomen and the right-hand side of the chest.

The diagram above shows the portion of the oesophagus and stomach which is removed (shaded in blue). The remaining stomach (shaded in green) is then made into a tube and pulled up into the chest to join the remaining oesophagus. This join is called an *anastomosis*. (See diagram on page 7).

The entire operation takes 6- 8 hours and the hospital stay afterwards is around 2 weeks.

After Surgery



During your operation the surgeon will also remove some of the lymph nodes from around your oesophagus. Lymph nodes, or lymph glands, are small sacs that are scattered throughout your body. You may be aware of these in the throat or under the arms when they become enlarged due to a sore throat or viral infection. Lymph nodes filter the fluid that has left the blood and is moving between the cells. Before this fluid returns to the blood stream the lymph nodes remove impurities and infection. Because they are a filter system they are also an early place for cancer cells to lodge in and grow.

If the cancer is causing significant obstruction, some people will need to have a stent before their operation. A stent is a flexible mesh tube which is inserted into the oesophagus to enable food and fluids to pass the obstruction caused by the tumour. This is done under sedation in the gastroenterology department. If you require a stent you will be provided with separate, detailed information.

Preparing for your hospital stay

It is important to begin planning how you will manage after you are discharged home.

- You will need to have someone stay with you, or organise to stay with family/whanau or a friend for a time after you are discharged. You will tire more easily for a while after you go home and won't be able to do things with the same energy as before.
- If you do need help after discharge, you will be seen by the Needs Assessment Team in hospital about help with personal cares at home.
- With a community services card, you may also qualify for home help.
- If you have any social or emotional concerns, you may wish to contact the community social work service on (09) 489-8945 ext 3222

The following list may help you to prepare for your operation:

- Arrange for someone to bring you to hospital. Please let your clinic nurse or nurse specialist know if you need assistance with transport to hospital.
- Consider getting a medical alarm for a short period of time if you are living alone.
- If you are on your own, decide if you need to apply for a sickness benefit or other benefit.
- If you usually do your own lawns and gardens, you may want to arrange to have these managed by someone else for a couple of months.
- If you usually manage your own housework you should arrange to have this managed by someone else until you feel well enough.
- If you have pets, you should organise care and /or feeding for them.

- Check that your house security is in place, cancel paper delivery and organise for your letterbox to be cleared if needed.
- You may wish to ask your provider to put some of your household services, such as newspaper delivery, on hold.
- Make a list of useful contact numbers.
- Consider your needs for when you return home (eg supplies, transport, housework, support). Family/whanau and friends may be able to help.
- If you usually manage your own meals, you might consider freezing some for when you return home or purchasing some pre frozen.

Before your operation

Nutrition

Good nutrition is important prior to an operation and will help you cope better with the recovery. You will be seen by a dietitian who will provide you with dietary advice. Many patients with oesophageal cancer also need a liquid food supplement.

You will be given a prescription for an extra nutritional drink to be taken three times a day for five days prior to your operation. This aims to reduce the chances of some post-operative infections. This is free of charge but can only be collected from the outpatients' pharmacy on the ground floor of North Shore Hospital.

Activity

It is important to maintain as much normal physical activity as you feel able to prior to your operation. Regular walking is recommended to keep your heart and lungs healthy.

Smoking

If you are a smoker, it is important for you to stop smoking as soon as you know you are having an operation. Stopping smoking now will reduce the risks during and after the operation and help you heal faster.

Support to stop smoking is available through the hospital by calling the ELECT team on 486 8920 ext2117 or 021 509 251

Alternatively you can ask a nurse to refer you or send an e-mail directly to elect@waitematadhb.govt.nz

Upper Gastrointestinal (Upper GI) clinic

Before your operation you will have an appointment in the Upper Gastrointestinal (Upper GI) Clinic where you will be seen by the team of clinicians. Each clinician will explain and discuss with you the various aspects of the operation and recovery and what to expect. Please ask as many questions as you like at this appointment. It is a good idea to write your questions down as you think of them and bring them with you to appointments. If you think of questions later, your clinical nurse specialist can answer them for you or ask a doctor to talk with you.

The team of people who will see you in the Upper GI clinic includes:

Surgeon

The surgeons will give you information about your cancer, the operation, and its benefits and possible risks. They will explain to you what to expect afterwards for your immediate and longer term recovery. The surgeons will also explain what the possible long term effects of the operation might be.

Anaesthetist

The anaesthetists are the doctors who look after you during and immediately after your operation. Throughout the operation, the anaesthetist will keep you asleep, monitor your heart, blood pressure, oxygen and breathing, making sure you are as safe as possible.

Before you see the anaesthetist you will have an electrocardiogram or ECG which traces your heart rhythm. You will then meet the anaesthetist who will assess your current health, discuss your past medical history and assess your fitness to have a major operation. They may arrange blood tests or other investigations, or arrange for you to see other specialist doctors, to make sure you are well enough to proceed with the operation. They will discuss with you the plan for the anaesthetic and introduce the options available to provide pain relief after the operation. They will also tell you which of your usual

medications to take, and which of your medications you need to stop prior to your operation.

Intensive Care Medicine Specialist

The Intensive Care Specialists look after patients in the High Dependency Unit (HDU) and the Intensive Care Unit (ICU). They will care for you, along with your surgical team, during the first few days after your operation. They will also assess your current health and your fitness to have a major operation. S/he will tell you what to expect in the first few days after your operation.

Dietitian

As well as the clinic dietitian who will help you with your diet before coming in for your operation, the dietitian in the ward will help you as you start drinking and eating again.

Clinical Nurse Specialist (CNS)

The CNS coordinates your care, provides support to you and your family/whanau, and ensures you have the information you need about your illness, treatments, hospital stay and post-operative recovery expectations.

The CNS will also provide you with information about other services and professionals in the hospital and in the community.

Other people who may be involved in your care at different time points include:

Psychologist

Psychologists can help with adjusting to being diagnosed with cancer and the impact that this may have on you and your family/whanau. Psychologists can help with:

- making sense of what is happening
- preparing for and making decisions about treatment
- coping with feelings such as anxiety, fear, low mood or distress
- the impact on relationships
- coping with side effects such as pain, treatment side effects and fatigue

Talk to your clinical nurse specialist if you would like to be referred to this service.

Physiotherapist

A physiotherapist will teach you leg and breathing exercises, and assist you with your mobility after the operation to reduce the risk of post-operative complications.

Social Worker

Social workers can assist you and your family/whanau to deal with personal, emotional, relationship and social problems that are health related. Social workers also provide supportive counseling and referral to services in the community.

The Needs Assessment Service (NASC)

The needs assessor can discuss whether you need any help with personal cares at home. NASC services include:

- Coordinating short/long term supports in the community.
- Facilitating options for support including:
 - Personal care assistance e.g. showering, dressing, meal preparation.
 - Household management e.g. shopping, cleaning, laundry (requires a Community Services Card).
- Provision of community support services information: e.g. Salvation Army Volunteer Services and Age Concern.

During your hospital stay

After the operation you will be cared for in the High Dependency Unit until you are ready to be transferred to the surgical ward. The length of stay in the HDU varies with each person however it is usually two to three nights.

The HDU is a dedicated unit with specialist intensive care doctors, nurses and physiotherapists. There are a higher proportion of nurses per patient in this area, which enables them to meet the needs of your initial recovery period.

The intensive care team is constantly in the HDU and will visit you each morning in addition to your surgical team. This is an opportunity to discuss any aspect of your care and ask any questions that you may have. Every effort is made to preserve your dignity and privacy during the morning ward round. Therefore, while visitors are welcome at any time, we ask that they are not present during the ward round.

You will be connected to monitors for your heart's activity, blood pressure and oxygen levels. You will have extra oxygen delivered through either a mask or tubes that are positioned comfortably into your nose.

The intravenous drips and drains will be inserted while you are under anaesthetic to deliver fluids and medicines into your blood stream. Your nurse will explain them to you.

Your family/whanau are welcome to phone the unit to ask about your progress. We ask that this please be done through a designated family/whanau member or friend to control the number of telephone calls to staff.

Prior to leaving the HDU for the surgical ward, most of your drips and drains will be removed and certain monitoring discontinued. This shows your improving condition and readiness to be cared for in the ward.

Pain relief

A combination of pain relief will be used to keep you as comfortable as possible after your operation. This may include:

Epidural

An epidural is a thin tube inserted in your back by the anaesthetist before your operation. Local anaesthetic is infused through it to block the nerves that supply the operation site. This will remain in place for up to five days after your operation. You are still able to sit and walk around normally with an epidural in place.

You will be given a button to push so you can control the amount of pain relief you are given. This is called a PCEA (patient-controlled epidural analgesia). The pump is programmed to deliver the correct amount. For a set time after each dose it will not deliver another dose so it is not possible to overdose.

The nurses will check regularly on your comfort. It is very important that your pain is controlled. If you are unable to breathe deeply and cough after the operation without it hurting, you could develop a chest infection. Please let the staff know how you are feeling so they are able to help you.

Intravenous (IV) pain relief

If needed, pain relief medicines can be given through your IV drip. You may be given a button to push so you can control the amount of pain relief you are given. This is called a PCA (patient-controlled analgesia). Like the epidural, the pump is programmed to deliver the correct amount. For a set time after each dose it will not deliver another dose so it is not possible to overdose.

Oral pain relief

When you are able to drink, you may be given pain relief by mouth.

Naso-gastric (NG) tube

You will have a NG tube in your nose, which goes into your stomach area. This tube keeps your new stomach area empty and will be removed once the drainage is minimal.

Drains

After an operation it is normal for some blood and fluid to be produced at the site of the operation. The surgeon will place drains in the chest and abdomen to drain this fluid which will be removed once they are no longer needed.

Urinary catheter

You will have a tube to drain the urine from your bladder. This will be removed once your epidural has been removed and you are able to get up to the toilet.

Eating and drinking

After the operation you will not have anything to eat or drink because the join in your oesophagus needs time to heal. Once your surgeon is happy that you are healing well, you will be allowed to slowly start drinking and gradually increase to include food. A dietitian will guide you on what to eat while you are returning to normal eating again.

It may take some time for your appetite to return to normal. As part of your stomach will have been removed, you will not have the capacity for food that you previously had. At first you will need to eat smaller amounts frequently to prevent discomfort.

Before you go home your dietician will give you detailed advice about your diet.

Feeding tube

It may take time for your stomach function to return to normal. A soft feeding tube will be placed through your abdominal wall into the gut below the

operation site. You will be provided with liquid nutrition through this tube until you are able to eat and drink enough on your own. Patients usually go home with this tube in place. Once you are maintaining your weight, it is easily removed in the outpatients' clinic. The ward nurses will teach you how to care for the tube and the district nurse will make sure you are managing well.

Mobility

The physiotherapist and nurse will aim to get you up into a chair from the day after your operation. You will then be assisted to walk a short distance with your level of activity increasing as you recover. Walking regularly is important for your recovery.

Emotions

It is common to feel emotional during your recovery period. When you are feeling down it may help to talk to someone about it, including your family/whanau and close friends, your doctor or your nurse. It can also help if your family/whanau and close friends understand that it is not unusual for patients to feel down at times after an Ivor Lewis operation. If you feel overwhelmed, please talk to your doctor or nurse so that they can help you.

Possible complications of an Ivor Lewis operation

All operations have risks and potential complications. An Ivor Lewis operation is a major operation and certain complications can occur. Your surgeon, anaesthetist and intensive care doctor will discuss with you what the risks and chances of a serious complication are for you. The following are the main complications which will have been discussed with you before your operation:

Anastomotic leak

The surgeon will have pulled the remainder of the stomach up to join onto the remaining oesophagus. This join is called an anastomosis. It is possible that the anastomosis may leak. If the doctors are concerned that you may have a leak, a CT scan will be done to check the anastomosis. If you do have a leak you will not be able to eat or drink as this may make it worse.

The drains that are placed during the operation will remove any leakage until the anastomosis heals on its own. In a very small number of patients another operation may be necessary to repair a leak.

Once the doctors are confident that there is no longer a leak you will be able to start drinking.

Chest infection / Pneumonia

Having a chest wound as well as an abdominal wound can increase the chance of developing a chest infection. It is important that your pain is well managed because pain will prevent you from breathing effectively and moving – both of which are essential to help prevent a chest infection. Please let your physiotherapist, nurse or doctor know if your pain is preventing you from doing your deep breathing and coughing exercises.

Your physiotherapist will teach you the breathing and coughing exercises after your operation, however, we suggest that you take some time now to familiarise yourself with them (please see *Pre-operative Physiotherapy Advice for Abdominal Surgery*).

If you smoke, stopping now will help reduce the chance of a chest infection after the operation.

Wound infection

Any surgical wounds have a chance of becoming infected and great care is taken to minimize this risk. Stopping smoking at least 2 weeks prior to an operation has been shown to reduce wound infection rates.

Blood clots in the leg

Blood clots in the leg can happen after a major operation and during periods of immobility. To help reduce this risk:

- Your nurse will give you compression stockings to wear
- You will be fitted with disposable leg sleeves which use an air pump to create intermittent compression, or squeezing, around your calves to help with the blood flow.
- You may be started on some blood-thinning medication a day or so after the operation
- You will be helped to get out of bed and move around as soon as possible after the operation

Please also take the time to familiarise yourself with the leg exercises given to you in the *Pre-operative Physiotherapy Advice for Abdominal Surgery* booklet.

Potential longer-term consequences of an Ivor Lewis operation

There are some potential longer term consequences of Ivor Lewis operation. You may, or may not, experience any of these.

Oesophageal stricture

Scar tissue contracts as it heals. Too much contraction can cause a narrowing, or stricture, at the point of the anastomosis. If this happens, you will begin to experience the same difficulty in swallowing that you had before your operation. This can be alarming as you may be worried that the cancer has come back. It is important that you let your surgeon know because a stricture can be successfully treated.

Oesophageal reflux

After an Ivor Lewis operation, the ring of muscle between the oesophagus and stomach, which prevents reflux, is lost. This means that stomach acid can reflux and cause heartburn. This can be helped by changing eating habits and medication. Many patients need to sleep more upright after an Ivor Lewis operation.

Dumping syndrome

Dumping syndrome is a rare consequence of the Ivor Lewis operation. It occurs when food, especially sugar, moves from the remaining stomach into the small bowel too quickly. The body then releases large amounts of insulin which causes blood sugar levels to drop. This results in nausea, abdominal cramps, sweating, diarrhoea, and dizziness or light-headedness. Dumping symptoms can occur within a short time of eating, or one to three hours from eating.

Symptoms can be improved by eating small amounts at regular intervals, reducing the sugar in your diet, eating slowly and avoiding drinks or liquids

close to mealtimes. Should you experience symptoms of dumping, the dietitian will give you advice on how to manage this.

Diarrhoea

The vagus nerves that supply the bowel and help coordinate bowel movements are disrupted during the operation which can result in diarrhoea. This can usually be controlled with medication and improves over time.

Alteration in diet:

It will take some time to adjust to new eating patterns. Your stomach will be smaller after the operation. You will be advised to eat smaller meals and snack between meals. This is to allow better absorption of the food and to avoid feeling bloated or getting too full.

Loss of weight

It is common for patients to lose 5 to 10% of their body weight following an Ivor Lewis operation. After an initial weight loss, the weight usually stabilizes in a few weeks. Most patients are then able to increase and maintain their weight. Although people vary, it usually takes a few months to regain the lost weight.

The dietitian will give you advice on healthy eating and building yourself up after the operation.

After you go home

The Ivor Lewis operation is a major operation. You will feel tired and weak for a few months however it is expected that you will continue to feel stronger over this time. Light physical activity and regular walks, several times a day, are encouraged. It is recommended that you gradually increase your activity, taking the time to rest often, until you are back to your normal level of activity. Many patients have reported that it has taken up to a year to feel completely recovered. Sexual activity may be resumed when you feel comfortable to do so.

You may also have times when you are feeling down or worried. If you start to feel concerned about your mood please consider either talking with your family doctor, your Cancer Society nurse or clinical nurse specialist. They will be able to refer you for some extra support.

The operation and recovery period can also be a stressful time for both patients and families/whanau. Your family/whanau and support people are able to contact the Cancer Society if they feel they would like some extra support.

Please avoid lifting anything heavy for at least six weeks after your operation. You may recommence driving once you are confident that you can brake quickly in an emergency without discomfort. Some pain medicines cause drowsiness and may alter your driving responses. Some insurance companies may not cover you in an accident for up to six weeks following an operation. Please check this with your insurance company.

After you go home you will continue to be followed up in the outpatients' clinic. At the time of your discharge you will be told when you will be seen in clinic and the booking clerk will post you an appointment letter. Please don't hesitate to contact your Clinical Nurse Specialist (CNS) if you have any questions or concerns between your appointments.

The UGI team wishes you well with your recovery.

Useful contact details

North Shore Hospital

(09) 486 8900 or 0800 80 93 42

Ward 4 ext 2684

Ward 8 ext 2673

High Dependency Unit ext 3728

Patient Enquiries

(09) 486 8900 ext 2430

Dietitian / Nutrition service

(09) 486 8900 ext 3556

Maori Health Services- Mo Wai Te Ora

(09) 486 8900

Asian Health Support Services

(09) 486 8314

(09) 486 8900 ext 2314 / 3863

Social Workers

(09) 486 8920 ext 3271

Chaplain

(09) 486 8900 and ask to speak to the Chaplain on call

Cancer Society

0800 226 237

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