Lobectomy

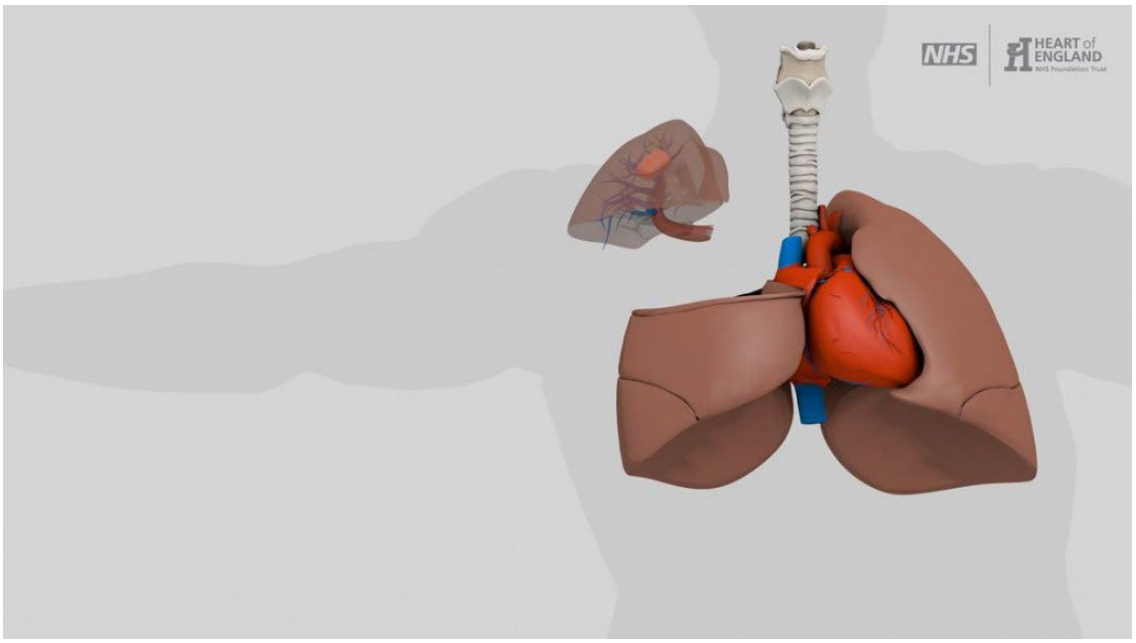
Lung cancer surgery

Welcome to the Thoracic Surgery Department, at the Queen Elizabeth Hospital Birmingham. The Thoracic Team are a surgical team, who deal with problems involving the chest (e.g. lungs, airways,).

We hope that this information leaflet will help to answer any questions or queries you might have about your procedure. The information provided in this leaflet will be discussed with you in full before/during your admission.

What is a lobectomy?

A lobectomy is when either one third or one half of a lung is removed, along with the lymph glands around it. This is done while you are asleep under a general anaesthetic. Most people will have a keyhole (video-assisted thorascopic surgery or VATs) operation. Some people need to have an open (thoracotomy) operation. Surgery usually takes between one and three hours.



What are the benefits of a lobectomy?

The surgical removal of a tumour aims to cure you of lung cancer.

What does a lobectomy involve?

Operations can be done in different ways, please see details below.

Keyhole surgery (VATS)

Up to four small cuts are made, each about 1.5cm to 5cm (2 in) long. These are used for the instruments and a small camera to enter into the chest. The piece of lung is removed through one of the small cuts. The muscles and skin are closed with dissolvable stitches.

Information for Patients

Research tells us keyhole surgery may have benefits over open surgery, in cases where it is possible. These include: less pain, quicker recovery, a shorter stay in hospital, smaller scars, and a quicker return to normal activities.

If a part of the operation cannot be carried out during keyhole surgery, the operation may need to be changed to open operation (thoracotomy). This may also be done if bleeding occurs during the operation, so that the surgeon can stop the bleeding.

Open surgery (thoracotomy)
Open surgery involves making a single long cut under the shoulder blade, between two ribs. The two ribs are then parted to get into the chest. One rib may be cut to give more space, however the ribs are not removed. At the end of surgery, the two ribs are held back together with strong stitches. The muscles and skin are also stitched back together.

During surgery you lie on your side with your arm raised. The blood vessels and bronchus, leading to the lobe to be removed, are identified. Special staples are used to cut and seal the blood vessels and bronchus. If the operation is being performed to treat lung cancer, lymph glands will also be removed. One or two chest drains are put in at the end of the operation and held in place with a stitch. The drains remove any fluid or air from around the lung.

Other reasons for lobectomy
Lobectomy may be carried out for long-term lung infections; in this case, the alternative would be to continue medications to control the infection.

A lobectomy may also be carried out in an emergency; this is lifesaving to control bleeding.

What are the risks, side effects and possible complications of a lobectomy?

The risks here are a guide and your own risk may vary. You should discuss the risks and benefits of surgery with your surgeon, especially if you are worried.

General risks of having a lobectomy

Pain
It is normal to have pain after this operation. Regular pain relief will be given to control the pain and it should settle in a few weeks.

Very occasionally, pain does not settle (long-lasting or chronic pain), and you may need to see a specialist at a pain clinic.

Bleeding
Following chest surgery, some blood loss into your chest drain is normal. Occasionally, a blood transfusion will be required, and if this is the case, further information will be given to you. Very few patients will need to return to theatre to control the bleeding.

Chest infection
This occurs in a small number of patients having a lobectomy. The risk and severity is increased if you are a current smoker.

Physiotherapy, early mobilisation, and adequate pain relief, can help you to be more mobile and clear chest secretions, which reduces the risk of this occurring. If you do develop a chest infection,

you may need extra physiotherapy, antibiotics, and to stay in hospital for a little while longer.

Wound infection
Showering before your surgery, frequent hand washing, and using the alcohol rubs provided, will reduce this risk. Some patients will still develop a wound infection, and as a result, will need antibiotics and wound dressings. You may require help from the district nurses to dress the wound once you have been discharged.

Shortness of breath
Some people are more short of breath after surgery. Part of your pre-op assessment is assessing your risk of being breathless after surgery. If you already have lung disease, there is a higher risk of being breathless, and you may need to have oxygen at home.

Fast heartbeat
The heart can start going in an irregular and faster beat, this is called atrial fibrillation (AF). This is usually controlled with medication. If AF continues beyond a few days, you may need to have medication to thin the blood, such as warfarin.

Air leak
Air leaking from the lung into the chest drain for a few days is common after lung surgery. Occasionally this lasts for longer, possibly weeks. A chest drain will need to be in place until this settles. You may be able to go home with the chest drain still in place, but you will need to come back to clinic for regular check-ups, until the air leak settles and the drain can be removed.

Blood clots
These can occur in the legs (deep vein thrombosis) and then travel to the lung (pulmonary embolism). The risk is greatly reduced by wearing support stockings, having daily injections of a blood thinning drug, and early mobilisation. Special massaging boots, called Flowtron boots, are also put onto your legs during your operation.

Heart attack or stroke
This can occur during or after surgery. The risk is higher in patients with a cardiac history or undiagnosed cardiac disease. For this reason, every patient will be fully assessed before surgery.

Painful shoulder
This is quite common. It can be eased with pain relief and regular shoulder exercises.

Constipation
Painkillers often cause constipation. To help, you should have a healthy diet, drink enough fluid, take laxatives, and walk around.

Disorientation
Disorientation and confusion can happen for a few days after surgery. It may be caused by strong painkillers, anaesthetic drugs, lack of sleep, and the hospital ward being different from home. You should return to normal within a few days.

Minor more common risks

Hoarse voice
Some patients develop a hoarse voice following their operation. This is more common in patients whose operation is on the left side, and when they have an upper lobectomy. This occurs due to nerve damage. If you are concerned that this may affect you, please talk to your surgeon.

Acute kidney injury
Your kidneys may not work as well after surgery but this is usually temporary and kidney function will improve with extra fluid.

Major less common risks

Bronchopleural fistula
A hole may form near the staples (bronchopleural fistula); this is usually only happens with an infection. It causes air to keep coming out of the lung but can be difficult to diagnose. You may need antibiotics and another operation to fix the hole.

Chyle leak
Fatty fluid may collect in the chest (chyle leak), however this is rare. You may require a temporary change in diet, a chest drain or another operation, to treat this.

Sepsis
Sepsis arises when our body's response to infection injures its own tissues and organs. It may lead to shock, multi-organ failure, and death.

Empyema
Empyema is a collection of pus between the lung and the chest wall. It can happen after surgery when infection develops. If this happens, you will need a chest drain and may need antibiotics for a few weeks. In some instances, another operation will be required to get rid of the infection.

Intubation and ventilation
A chest infection may cause you to have shortness of breath. This can develop into a severe infection, called bronchopneumonia, which may be severe enough for you to require help with your breathing from a ventilator machine. This may be with a face mask with you fully awake, or alternatively, you may need a tube in your windpipe (intubation) with you under sedation. This would mean that you would go to intensive care. If you need help breathing via a tube for a long time, it may be better to have a temporary tracheostomy. This is a tube put in through the neck which is removed once breathing improves.

Acute Respiratory Distress Syndrome (ARDS)
This is a life-threatening lung injury that allows fluid to leak into the lungs. Breathing becomes more difficult, and oxygen cannot get into the body. Breathing needs to be supported by intubation and ventilation.

Death
Nationally, 98 in 100 people are alive one month after surgery and two people die. Your individual risk may be higher or lower depending on your health. This will be discussed with you by your surgeon.

What are the alternatives to surgery?
Surgery gives the best chance of being free from cancer if you have early stage lung cancer. You can discuss treatment options with your hospital doctors, your lung cancer nurse and your GP. If you do not want surgery or are not well enough to have an operation, other options may include:

Radiotherapy
Chemotherapy
Radiofrequency ablation

Information for Patients

Palliative care- If you have an illness that cannot be cured, palliative care makes you as comfortable as possible, by managing your pain and other distressing symptoms. It also involves psychological, social, and spiritual support, for you and your family or carers.

It is your choice whether to go ahead with surgery or choose another kind of treatment. We will respect your wishes and support you in choosing the treatment that suits you. You are always welcome to seek a second opinion.

What can I expect during my admission and during my recovery?

Lobectomy is nearly always an elective procedure. This means you will have been brought in from home for your surgery. You will be in hospital for around two-four days. When you wake up, you will have a plastic tube (chest drain) coming out of your chest to drain air, fluid, and blood. Very occasionally, you may go home with this drain. You may have some discomfort or a hoarse voice. We will give you plenty of pain relief and get you mobilising with the physio team early on.

Following surgery, sudden movements can cause discomfort due to the healing and recovery process. You may also have some muscle weakening as a result of having the operation. It is generally not advisable to drive for four-six weeks after the operation, to allow time for healing. We advise patients to check with their motor insurance provider following surgery.

On average, we expect that it will take around three months for you to return back to your usual level of activity.

If you require this information in another format, such as a different language, large print, braille or audio version, please ask a member of staff or email patientexperience@uhb.nhs.uk