

Your guide to lung cancer surgery

This is your guide to what you can expect before, during and after surgery if you and your healthcare team are considering surgery as treatment for lung cancer.



Lung
Foundation
Australia

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Your lungs

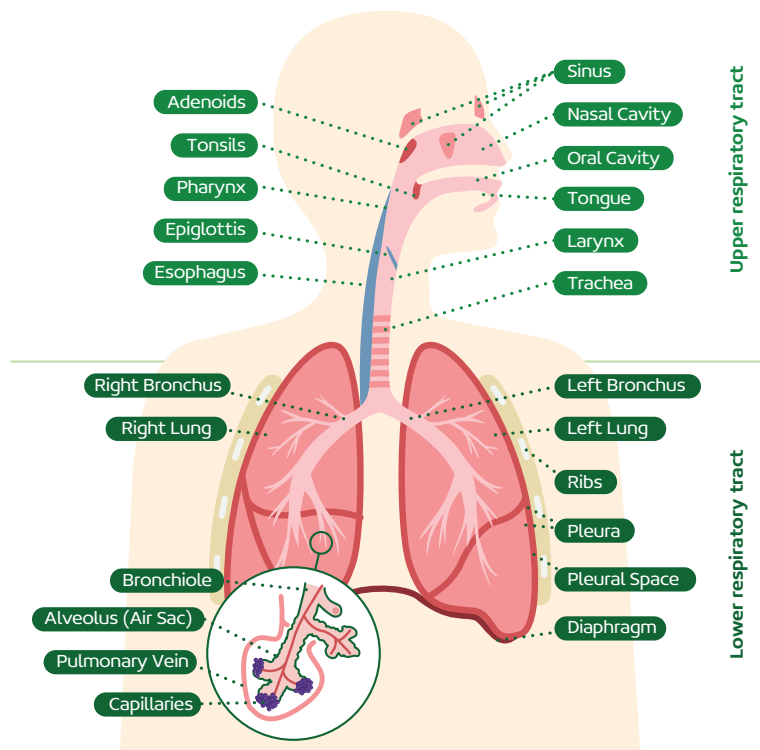
Your lungs are one of your body's main organs. They sit in your chest, just under your collar bone, and form the major part of your respiratory system, which includes the organs and tissues that allow you to breathe.

Your respiratory system is divided into two parts:

- The upper respiratory tract, which includes your nose, sinuses and throat
- The lower respiratory tract, which includes your trachea and lungs

Together, they work to bring oxygen into your body and remove gases you don't need like carbon dioxide.

The respiratory system



Know your lungs

Trachea

Also known as the windpipe. This is the tube that passes air from your throat to your lungs.

Right lung

Made up of three sections called lobes.

Left lung

Slightly smaller than the right lung and divided into two lobes.

Bronchial tubes

Your trachea divides into two main bronchial tubes, which then further divide into bronchioles. Air sacks, known as alveoli, are located at the end of these tubes. This is where oxygen from the air passes into your blood and carbon dioxide from your body passes back to your lungs to be breathed out.

Pleura

A thin membrane with two layers that wraps around the outside of your lungs (the inner layer is called the visceral pleura) and lines your chest wall (the outer layer is called the parietal pleura). The space between the membranes is filled with a small amount of fluid called pleural fluid, which makes it easier for your lungs to move without friction when breathing. This fluid is constantly being produced and drained by your body.

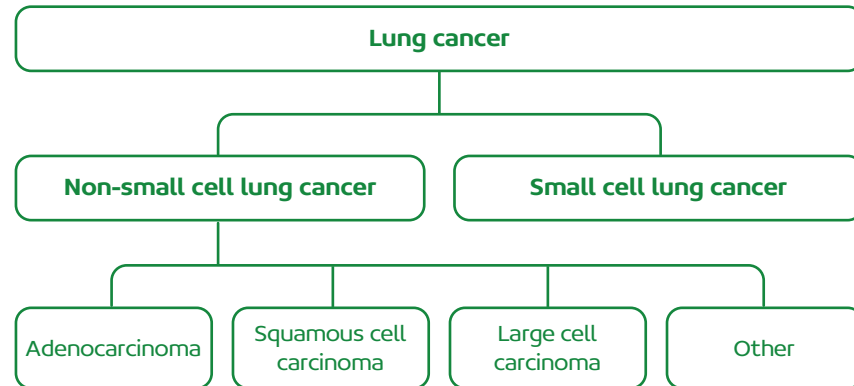
Diaphragm

A strong wall of muscle that separates your chest cavity from your abdominal cavity. It is the main muscle responsible for breathing.

What is lung cancer?

Lung cancer is a type of cancer that starts in your lungs – not a cancer that has spread to your lungs from somewhere else in your body (this is called a metastasis). It begins when some of your lung cells develop changes in their DNA (called a mutation), causing them to divide uncontrollably. This means that you end up with more and more mutated lung cells (cancer cells), which may form a mass called a tumour.

There are two main types of lung cancer: non-small cell lung cancer or small cell lung cancer



Understanding a lung cancer diagnosis booklet

- Types of lung cancer, risk factors and symptoms
- Getting a lung cancer diagnosis
- Treating lung cancer

For more information, please see the Understanding a lung cancer diagnosis booklet



Understanding lung cancer surgery

Why is surgery needed?

If you have been diagnosed with lung cancer, your healthcare team will talk to you about a range of treatment options. Surgery is an effective treatment for lung cancer that removes the tumour as well as some surrounding tissue to help stop it from progressing or spreading to other parts of your body. In general, it can provide the greatest chance of a long-term cure.

Surgery may be one of the possible options if you have:

- NSCLC** Early-stage non-small cell lung cancer (stage 1 or 2). Occasionally stage 3 non-small cell lung cancer may be considered
- SCLC** Small cell lung cancer that is very small and has not spread outside of the lungs

In some cases, your healthcare team may recommend surgery based on results from your scans without having a definite diagnosis. Your surgeon should talk to you clearly about this beforehand.

When deciding on the most-suitable treatment option, remember that if you are unsure, you are entitled to get a second opinion.

Palliative surgery

If you have advanced lung cancer (stage 3 or 4) and are suffering from symptoms such as shortness of breath, trouble breathing or coughing up blood, you may be offered surgery to help improve the symptoms as well as your overall quality of life. If this is an option for you, your healthcare team will talk to you about what it will involve.

Suitability for surgery

Surgery is not suitable for everyone. Your healthcare team will consider a range of factors to decide if surgery is the best option for you including:



The type of tumour you have



How far it has spread

- Surgery is generally not suitable for most people with advanced lung cancer



Your general health

- Lung cancer surgery is a serious operation and you need to be well enough to cope with it

You will need to undergo a series of tests to help determine these factors and decide if surgery is right for you. The tests may include:

- **Determine the type of tumour you have**
 - A lung biopsy by bronchoscopy (a small tube down the throat while you are sedated) or by CT-guided biopsy (a needle passed into your chest under local anaesthetic)
 - Tests may be done on the biopsy to see if you are eligible for newer targeted therapies or immunotherapy
- **Determine how far the tumour has spread**
 - Imaging tests, for example, a PET scan
- **Determine your general health**
 - A lung-function test
 - Exercise or walking tests
 - Heart-function tests. For example, an electrocardiogram (ECG)

What is involved in lung cancer surgery?

Lung cancer surgery is a serious operation that aims to remove the parts of your body that are confirmed or suspected to have lung cancer. This may include:



Part or all of a lung



Surrounding lung tissue



Lymph nodes in the area



What are lymph nodes?

A small bean-shaped structure that is part of your body's immune system and helps to fight infection and disease. There are hundreds of lymph nodes found throughout the body. If the cancer has spread to some of your lymph nodes, they may be removed during your surgery.

Lung cancer surgery can be performed in 2 different ways depending on the location, size and stage of the tumour:

- 1 **Thoracotomy:** A cut is made between the ribs and an instrument used to spread the ribs so the surgeon can access the lungs.
- 2 **Minimally invasive surgery:** This may also be called video-assisted thoracoscopic surgery (VATS) or robot-assisted thoracic surgery (RATS). It involves making several small incisions in the chest allowing your surgeon to use a camera and operating instruments to perform the surgery from the outside of the chest.

Your surgical team

A whole team of healthcare professionals will be involved in your care both before and after the surgery. They will help to make sure you receive the best possible care for you. Your team may include:



Surgeon

If you and your doctors decide surgery is the most-suitable treatment option, the operation will be performed by a thoracic surgeon or a cardiothoracic surgeon. They are specialists in dealing with diseases or injuries to the chest including lung cancer.

Your surgeon will have experience operating on lung cancer and will work together with the rest of your healthcare team to help give you the best outcome possible.



Anaesthetist

Administers anaesthesia and looks after you during the surgery. They may also be involved in planning pain relief following your surgery.



Wider team

Other members of your surgical team may include a registrar, junior doctor, assistant surgeon or advanced nurse practitioner.

Treatments given in combination with surgery

Surgery may be just one part of your treatment for lung cancer. You may also be offered other treatments to improve the chance of success and reduce the risk of recurrence.

- **Neoadjuvant treatments** are other treatments given before your surgery to shrink your tumour
- **Adjuvant treatments** are given after surgery to kill any cancer cells left around the tumour that was removed or those released in the bloodstream before any treatment had occurred

These treatments may include:



Anticancer drug treatments

- **Chemotherapy**: A cancer treatment that uses drugs to kill rapidly dividing cells, like your cancer cells
- **Targeted therapy**: Medications that target specific molecules, known as molecular targets, that are involved in the growth, progression and spread of cancer. They are only suitable if your tumour tests positive for particular mutations. Speak with your healthcare team about what tests are available to you.
- **Immunotherapy**: A treatment that uses your own immune system to help kill cancer cells

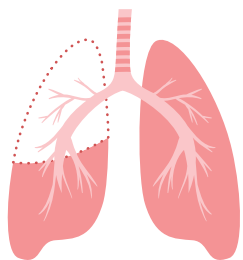


Radiation therapy

- Uses high-power X-rays to kill cancer cells or keep them from growing

Your cancer team will explain which treatments are right for you and when you will receive them based on the type and stage of your lung cancer.

Types of lung cancer surgery



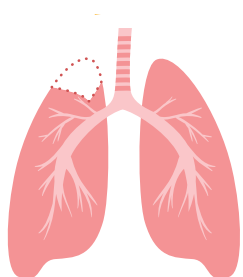
Lobectomy

A lobectomy involves removing one or more lobes of the lung that are affected by the cancer.

- Approximately one third to a half of your lung (30% to 50%) will be removed

It is the most-common operation for lung cancer. It may be suitable if your cancer is contained in a single lobe and you are reasonably fit. After surgery, your remaining lung will expand to fill the space left by the tissue that has been removed.

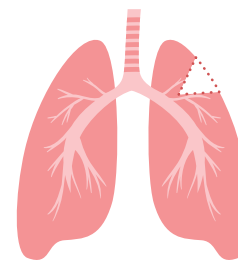
If more tissue needs to be removed, you may undergo a bi-lobectomy, which involves removing two lobes next to each other.



Segmentectomy

Each lobe of the lung is made up of several segments. A segmentectomy involves removal of one or more segments within a lobe.

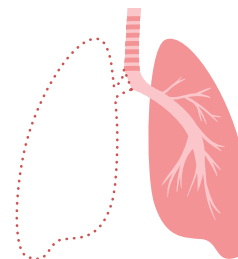
- This can help to save unaffected tissue
- It is generally only suitable for removing tumours up to 2-cm wide



Wedge resection

Involves removing a small, wedge-shaped part of the lung tissue surrounding the tumour.

- A wedge resection may be performed to remove a small or early-stage tumour or if you are too unwell for a segmentectomy or lobectomy
- A wedge resection may be needed if you have already had a lobectomy or segmentectomy in the past



Pneumonectomy

Removal of the entire affected lung on one side.

- Your surgeon may perform this procedure if there is no other way of completely removing the tumour
- This is only an option if you are considered fit enough, with enough spare lung capacity

Risks of lung cancer surgery

All surgeries pose some level of risk. It is important you talk with your healthcare team about the risks of your specific surgery, and understand the answers to make an informed decision and decide if surgery is right for you.

Some of the risks associated with lung surgery



General anaesthesia

Although complications from anaesthesia are possible, they are relatively rare. The risks vary for every person, so your healthcare team will discuss your specific circumstances with you. After an anaesthesia it is common to experience a sore throat, hoarseness and pain at the IV site.



Blood clots

Following surgery, your risk of blood clots increases because you are unable to move as much as usual. These clots can form in your legs resulting in a deep vein thrombosis (often just called DVT) or a pulmonary embolism (when a blood clot moves to your lungs). You can reduce your risk after your surgery by:

- Moving around as soon as it is safe
- Doing leg exercises
- Wearing compression stockings
- If you have a high risk of blood clots, your healthcare team can give you medication to thin your blood and prevent it from clotting



Bleeding

Some bleeding during surgery and straight after your operation is normal. If you are worried about how much blood you are losing, please speak to your healthcare team.



Post-operative air leak

It is normal to have some air leaking from your lungs after the surgery. However, sometimes the air leak may continue, and you may need to return to surgery or stay in the hospital for a longer recovery time.



Chest infection

After a lung operation, you are at increased risk of getting a chest infection. Being active reduces your risk, so the sooner you are up and moving around, the better. You may also be given breathing exercises or physiotherapy support.



Wound infection

There is a small risk of infection of your surgical wound after surgery. If it does get infected, you may be prescribed antibiotics. In some rare cases, you may need another operation.

The symptoms of an infection may include:

- High temperature
- Shivering
- Feeling hot and cold
- Feeling generally unwell
- Persistent cough or new chest symptoms
- Feeling sick
- Loss of appetite
- Swelling or redness around your wound or your wound might feel hot
- A strong smell or liquid oozing from your wound

If you experience any of these after lung cancer surgery, make sure you tell your healthcare team.



What happens before lung cancer surgery?

Before your surgery is confirmed, you will have a pre-operative assessment. During this appointment you will have a series of tests to check how well your lungs are working and your general health. These tests help make sure that surgery is right for you.

These tests may include:



Blood and urine tests



Exercise or walking test



Lung-function tests to check your breathing and see how your lungs will function after surgery



Chest X-ray



Electrocardiogram (ECG), which is a recording of your heart

You will also need to complete a questionnaire that includes information on:

- Your medical history
- Any allergies you have
- Any medicines you take including anticoagulants (medicines to prevent blood clots), aspirin or other antiplatelet drugs as well as any over-the-counter medicines, vitamins, herbs or other supplements

You may also have a pre-operative visit with your anaesthetic team in the days before your surgery to discuss the operation and pain relief afterwards.

The pre-operative assessment is also an opportunity for you to discuss any questions or concerns you have. Remember, your healthcare team is there to make you feel as confident as possible about your surgery.

Preparing for surgery

Looking after your physical and emotional health in the lead up to your surgery will play a big part in your recovery.

Your physical health



Eat healthy food

Make sure you get at least 5 servings of fresh fruit and vegetables every day and eat plenty of protein-rich foods, such as meat, fish, pulses, eggs or cheese. Eating well can help your body cope with the stress of surgery.



Stop smoking

If you smoke or vape, you will need to stop before your operation.

Why quit now?

- 1 Reduce the risk of breathing problems and complications after your surgery
- 2 Reduce the risk of infection and delayed healing
- 3 Improve oxygen flow and lung function
- 4 Enhance the effectiveness of anaesthesia and pain management

If you need help to quit, talk to your GP about smoking-cessation options such as nicotine replacement therapy or other prescription medicines. You can also get free support and resources by calling the Quitline on 13 7848 or visiting quit.org.au.



Avoid alcohol

Alcohol can affect how your body works and increases your risk of complications after surgery. Try and avoid drinking alcohol in the lead up to your surgery.



Be physically active

If you can, try and do some gentle exercise every second day for 20 to 30 minutes. It doesn't matter what activity you prefer to do, the important thing is that you are active. It will help improve your fitness and breathing for the operation and your recovery afterwards.

Exercises to try



Walking around the block



Marching on the spot at home



Slow swimming



Taking the stairs instead of the lift or doing step-ups



Casual bike ride



Pottering in the garden



Holding a ball in both hands and raising it above your head

Every bit of movement counts. Listen to your body and rest when you need to.

Some centres might do a formal 'prehab' program designed to improve and optimise your fitness prior to surgery. Make sure you speak with your healthcare team to see what is available.

Your mental health

Preparing for surgery isn't just about your body. Your emotional wellbeing matters too. Feeling nervous, worried or overwhelmed is completely normal. Help prepare mentally for your surgery by:



Talking to someone

Surgery is stressful, so you might find it helpful to talk to someone such as a counsellor, psychologist or your lung cancer nurse about how you are feeling. They can help address any anxiety you have and help you feel more in control.



Spending time with your friends and family

Your friends and family can help to support you. Telling them how you are feeling and what you are going through may help you feel supported and less alone.



Relaxation techniques

Techniques like adjusted deep breathing, meditation or yoga can help you control your anxiety and improve your wellbeing.

What to take to hospital

You will usually need to stay in hospital for up to a week following your surgery, so it is important you bring everything you need for this length of time. Here's a checklist to help you prepare your hospital bag.

You must bring

Admission letter

Medicare card

Any recent X-rays or scans

A 2-week supply of your medicines

Pyjamas and a dressing gown as it can sometimes be colder in hospital.

Day clothes

Appropriate footwear (comfortable, low-heeled, non-slip shoes or slippers)

Wash bag and toiletries including tissues

If you require them:

Glasses with case

Dentures

Hearing aid

Walking aid

Consider also bringing

Books and magazines

Mobile phone

Earphones

Laptop or tablet computer

Chargers for any of your devices

Leave at home

Jewellery and valuables

Remove nail polish or false acrylic nails





What to expect when you are in hospital

The day of the surgery

Every hospital is different, but generally you can expect the following steps when you arrive at the hospital.

Arrive at hospital and be admitted

Get ready for surgery

- A nurse will check your medical history and your vital signs
- If required, hair removal will be done in the hospital
- Have a shower with special soap provided by the hospital

Go to operating room

- See the anaesthetist and receive anaesthetic
- Surgery

Wake up in theatre recovery room

Move to ward or intensive care unit

If you have any questions, make sure you ask them before you go to the operating room.

After the surgery

Lung cancer surgery is a serious operation, so it will take you some time to recover. That's why it is important that you understand just what to expect immediately after the operation.



Medical equipment

During the surgery:

- **Lines:**
 - An arterial line, which is a drip that goes into an artery to monitor your blood pressure and oxygen levels
 - A neck line, which is a drip that goes into a vein in your neck, to monitor your blood pressure and fluid levels
- **Bladder catheter:** This is a tube going into your bladder to drain away urine so you don't need to go to the bathroom
- **Oxygen saturation monitor:** A clip on your finger or ear lobe that monitors the amount of oxygen circulating in your blood

After the surgery:

- **Oxygen supply:** When you wake up, the tube in your throat will be removed and you may be given oxygen either through a mask over your mouth and nose or through thin, soft tubes in each nostril
- **Chest drain:** During surgery, one or two chest tubes will be inserted through your chest into the pleural space, located between the lung and the chest wall. This is called a chest drain. These drains help to remove blood, fluid and air that collect in your chest cavity after surgery. They will usually be removed a few days after surgery
- **Heart monitor:** You will be connected to a heart monitor for around 24 hours after your surgery. This allows your healthcare team to monitor your vital signs
- **Drip:** One or two drips in your hand to deliver fluid and medication. You may also have patient-controlled analgesia, which is a drip in your hand or arm that allows you to control your pain medication when you need it



Breathlessness

It's normal to feel breathless after lung cancer surgery. A member of your healthcare team will show you how to do some simple breathing exercises to improve breathlessness and reduce the risk of a chest infection and possible complications.



Wound

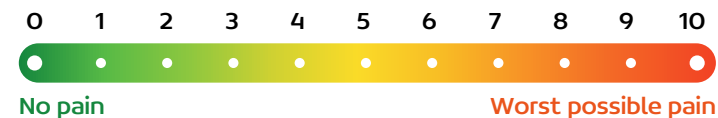
You will have a wound (or several small wounds for minimally invasive surgery) from the surgery as well as the chest tubes.

- The dressings around the chest tubes will be changed every day while the dressing from your operation will stay in place for 2 to 5 days. Your healthcare team will regularly check your wounds while you are in hospital
- The wounds will be closed with stitches, clips or staples, which will be removed, usually by your GP, about 7 to 10 days after your operation. If you have dissolvable stitches, they will disappear over a few weeks
 - If you see your GP to remove stitches, clips or staples, you should use this visit to review your pain medications and have a general discussion about the procedure



Pain

Keeping your pain under control is essential for your recovery. You will be given pain relief after the surgery to help you feel more comfortable and allow you to move around, breathe deeply, cough and do some physiotherapy exercises. While you are in hospital, your healthcare team will keep track of your pain levels using a 0 to 10 scale:



You will be asked to rate your pain so your team can adjust your medication as needed.

Before your surgery, you will discuss your pain-relief options with your anaesthetist. Pain relief will be tailored to you, including the type of surgery you have had, any other medical conditions you may have (such as impaired kidney function) as well as your current medications and allergies.



Recovering in hospital

Your recovery starts in the hospital. Your healthcare team will help you start the recovery process as soon as possible.



Eating and drinking

You will be able to have sips of water once you wake up. Some people begin by drinking clear fluids, moving onto other kinds of fluid, then start eating plain food and small meals. Eating and drinking are important to help your body heal and regain your strength. You might find it easier to eat smaller meals often rather than three set meals.



Movement

Moving around is important - it speeds up your recovery and reduces your risk of blood clots, chest infections and wound infections. As soon as you feel able, your healthcare team will help you get out of bed so you can start moving around as much as possible. You may also see a physiotherapist who can show you some ways to cough after surgery so it is less painful and make sure you can move your arm on the side of your operation.

A stiff shoulder is common after lung cancer surgery. You can try and do some exercises to help maintain your range of movement.

1

Slowly raise your right arm over your head and then slowly lower it. Repeat this with your left arm.



2

Bring your arms together over your head, swinging them gently, then lower them down again.



3

Pull your shoulders towards your ears, then bring them down slowly forwards. Repeat in reverse.



Recovering at home

You will usually be able to go home 3 to 7 days after your surgery, but the exact time will depend on your operation and how well you recover.

First few days

- You might want to organise to have a friend or family member stay with you for the first few days after you get home. They can help you settle in and assist with any daily living activities that you may struggle with

First 2 weeks

- Continue to walk regularly just like you did while in the hospital, trying to gradually increase the distance and pace. By week 2, you may feel that you could try walking outside as well
- Keep doing your breathing and arm exercises
- You can now take showers
- Start doing light household tasks such as washing up or cooking, but make sure you listen to your body and don't overdo it

What to avoid

For the first 4–6 weeks after your operation, you should avoid:

- Any activities that involve heavy pushing, pulling, lifting or carrying, such as mowing the lawn, walking the dog, carrying groceries or lifting children
- Doing any prolonged repetitive movements that cause a twisting effect, such as vacuuming or hanging out washing
- Any sharp, jerky movements such as shaking out blankets

Up to 3 months

- You can start taking on more household tasks, like ironing or vacuuming
- Get outside of the house with light activities such as shopping or gardening

- Around 4–6 weeks after the operation, you can consider driving again, but make sure you talk to someone from your healthcare team before you start
- Coughing and sneezing may still be painful, so it is important you support your chest and wounds for up to 2–3 months after the surgery. You may find that holding a small cushion against your chest when you cough helps. Make sure you discuss how to cough or sneeze with your physiotherapist before going home from the hospital
- If you wear a bra, you may want to consider getting one with a clip at the front to make putting it on easier

After 3 months

- By this point, you should be able resume your normal life both at home and out of the house. Everyone is different though, so make sure you take it at your own pace and speak to your healthcare team if you have any concerns

Returning to work

When you can return to work depends on a range of factors:

You

- How fit you were before the operation and how quickly you recover

Surgery

- The type of surgery you had

Your job

- People who have low-activity occupations, such as desk workers may usually return to work after 4–8 weeks
- Manual workers may usually return to work after 8–12 weeks
- Heavy manual workers may need to be off work for longer periods

Speak with your healthcare team as you will need to be cleared before you can return to work.

Staying healthy at home

Maintaining your health after surgery is key to a strong recovery. This includes staying active and eating well.

Exercise



Pulmonary rehabilitation

Pulmonary rehabilitation is an exercise and education program that teaches you the skills you need to exercise safely and manage any breathlessness you have after surgery. Studies have shown that pulmonary rehabilitation can help reduce breathlessness and the associated anxiety, increase your exercise capacity and improve your quality of life.

Speak with your healthcare team or call the Lung Foundation Australia on 1800 654 301 to help find a program that is suitable for you.



Physiotherapy

Your physiotherapist will give you a range of exercises to do including:

- Shoulder exercises
- Upper-body exercises
- Neck exercises
- Exercises to improve your circulation

Your healthcare team can give you a referral for a physiotherapist if you need one.



Whole-body exercise

After your surgery, it is important that you build up your strength and fitness. Walking is a great way to start at the beginning of your recovery. As you improve, you can incorporate other exercises such as swimming, cycling or dancing. The key is to start slow and build yourself up. You should aim to be doing around 30 minutes of exercise most days.

Healthy eating

Nutrition is always important, but it is especially important after surgery. What you eat affects your long-term recovery. That's why you should continue to eat well once you return home from hospital. If you are struggling to find food you want to eat, it might help to speak to a dietician. They can help you to pick out the best food for you.



Handy tip

Before your surgery, consider cooking easy meals that you can freeze for the first few weeks after the surgery, or find a food-delivery company that provides healthy, frozen meals. This will ensure that you have healthy food after the operation that is easier to prepare.

Looking after your wound at home

Regardless of what type of surgery you had, you will still have a couple of wounds when you return home. So how should you look after it?

- Try not to touch it. The more you touch it, the higher your risk of getting an infection
- Check it every day to make sure there are no signs of infection (see page 15 for signs of infection)
- If the wound is clean and dry, try and leave it without a dressing. This will help it heal quicker
- Don't pick at the scab. It will fall off on its own

A bit of swelling around the wound is normal.
It will go down on its own after a few weeks.

Follow up after lung cancer surgery

Regular follow up is an important part of your recovery and long-term health after surgery.

Surgery follow up

A few weeks after your surgery, you will need to visit the hospital for your first follow-up appointment. While you are there, your healthcare team will:

- Check your wound to make sure it is healing
- Organise some tests such as X-rays or CT scans to see how you and your lungs are recovering
- Give you the results of the surgery

Long-term follow up and lung cancer surveillance

Long-term follow-up appointments are important because even if your surgery was a success, it is still possible for the cancer to come back. This monitoring may include both physical examinations and imaging. You can expect to be monitored:

- Every 6 months for the first 2 years
- Annually after the first 2 years

The schedule will vary depending on you and the type of lung cancer you had.



Lung Foundation Australia is the only charity and leading peak body of its kind in Australia. We have a range of support services that can help you through your surgery and more.



Lung Cancer Specialist Nurse is a free service run by highly experienced oncology nurses who can provide evidence-based information regarding diagnosis, treatment and symptoms. This is a telephone-based service for patients, families and carers.

Scan to connect with a Lung Cancer Specialist Nurse or call 1800 654 301



Peer support programs and groups can help you connect with others who share a similar lived experience. Programs include online, face-to-face or telephone support groups for people with lung cancer.

Scan to find a peer support group or call 1800 654 301



Lung Cancer Social Worker is available via a free telephone-based service for people living with lung cancer, and their family and carers. The experienced social worker can help you to navigate the practical and emotional impact of your diagnosis.

Scan to connect with a Lung Cancer Social Worker or call 1800 654 301



Pulmonary rehabilitation can help improve breathlessness and overall quality of life. Lung Foundation Australia can help you find a program that is suitable for you.

Scan to find a pulmonary rehabilitation program or call 1800 654 301



Respiratory Care Nurse telephone service is available for people who have other underlying respiratory conditions such as COPD or bronchiectasis. The highly skilled nurse can provide guidance on all aspects of your condition according to the management guidelines.

Scan to connect with a Respiratory Care Nurse or call 1800 654 301



For more information and to access the support services from Lung Foundation Australia

- Visit lungfoundation.com.au
- Free call: 1800 654 301
- Email: enquiries@lungfoundation.com.au





Other useful websites

There is unlimited information online about the diagnosis and treatment of lung cancer, but sometimes it can be hard to tell the difference between a website that is reliable and one that is not. So, if you are looking for information online, here are a few websites that you can trust.

Australian websites

Lung Foundation Australia
lungfoundation.com.au

Australian Clinical Trials
australianclinicaltrials.gov.au

Cancer Australia
canceraustralia.gov.au

Cancer Council Australia
cancer.org.au

Carer Gateway
carergateway.gov.au

Carers Australia
carersaustralia.com.au

Department of Health and Aged Care
health.gov.au

eviQ Cancer Treatments Online
eviq.org.au

Guides to Best Cancer Care
cancer.org.au/cancercareguides

Healthdirect Australia
healthdirect.gov.au

National lung cancer screening program
health.gov.au/our-work/nlcsp

Palliative Care Australia
palliativecare.org.au

Radiation Oncology: Targeting Cancer
targetingcancer.com.au

Services Australia (including Centrelink and Medicare)
servicesaustralia.gov.au

Thoracic Oncology Group Australasia
thoraciconcology.org.au

International websites

American Cancer Society
cancer.org

Cancer Research UK
cancerresearchuk.org

Macmillan Cancer Support (UK)
macmillan.org.uk

National Cancer Institute
cancer.gov/types/lung

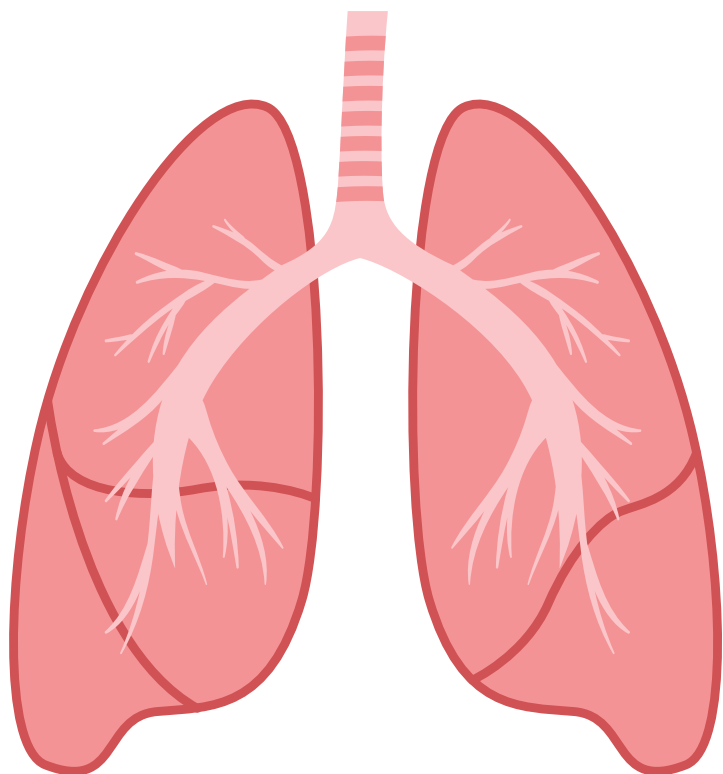
Questions to ask

You may find some of the appointments with your healthcare team a little overwhelming. You may not know what to ask, and you may forget what you wanted to ask. This list can give you a starting point to help make sure you are informed about your surgery and understand the risks and the benefits as well as the expected outcomes.

1. What type of surgery will I be getting?
2. What is the aim of the surgery?
3. Are there other types of treatment that could be suitable for me instead of surgery?
4. What are the risks and side effects of the surgery I will be having?
 - a. How do these side effects compare with side effects of other treatments?
5. How long will I have to wait before I get the surgery?
6. How will removing part of my lung during surgery affect my breathing in the long term?
7. Where will I go for the surgery?
8. How soon will I get results from my surgery and who will follow up with me to ensure I get those results?
9. What can I do to prepare for treatment and reduce the chance of side effects?
10. Will I need to change my lifestyle in any way?
11. If the surgery isn't successful, are there any other treatments I can get?
12. Can a sample of my tumour be sent for genetic testing to see if I may be eligible for any targeted therapies?
13. What are clinical trials and are there any that I would benefit from?

Your surgery diagram

Ask your surgeon to draw the location of your tumour and the kind of surgery that is planned on the diagram below. The image shows your lungs from the front. You may find it useful to understand exactly what will be happening in the surgery.



Glossary of useful terms

A

Adjuvant therapy Treatment given after the main type of treatment (usually surgery) to increase the chances of cure

B

Biopsy The removal a sample of cells or tissue for laboratory examination

C

Catheter A hollow, flexible tube that allows liquids to be delivered to the body or removed from the body

Complications Unexpected problems that can affect a patient during or after surgery

CT scan (computed tomography) A special kind of X-ray that takes many images to create detailed cross-sectional pictures of the body

D

Deep vein thrombosis (DVT) A blood clot that forms in the deep veins of the leg or pelvis. It is often caused by immobility, such as after surgery or during long-distance travel

I

Informed consent Understanding all relevant information about the surgery before agreeing to go ahead. It should include both the risks and the benefits

In-patient A person who stays in hospital while having treatment

Intravenous (IV) Injected into a vein

K

Keyhole surgery Also called minimally invasive surgery, it is surgery done through small cuts in the body using a thin viewing instrument with a light and camera. See also video-assisted thoracoscopic surgery and robot-assisted thoracic surgery

L

Lobectomy Involves removing one or more lobes of the lung that are affected by the cancer

M

MRI scan (magnetic resonance imaging) Uses magnetic fields and radio waves to create detailed pictures of soft tissues in the body

Multidisciplinary team (MDT) A team of healthcare professionals who work together to discuss a patient's physical and emotional needs and decide on which treatment to recommend

N

Neoadjuvant therapy Anti-cancer treatment given before the main type of treatment to increase the chances of treatment success

Non-small cell lung cancer One of the two main types of lung cancer. It has three main subtypes: adenocarcinoma, squamous cell carcinoma and large cell carcinoma

O

Out-patient A person who visits hospital for medical care without being admitted into hospital

P

Pleura The mesothelium (thin sheet of tissue) that surrounds each lobe of the lung and separates the lungs from the chest wall

Pleural cavity (pleural space) The space between the layers of the pleura. It typically contains a thin film of fluid

Pneumonectomy Surgical procedure to remove the entire lung affected by cancer

Prehabilitation A program to help a person prepare for surgery. May include exercise, nutrition and emotional support

Pulmonary embolism When a blood clot travels to the lungs and blocks an artery

Pulmonary rehabilitation

A comprehensive program designed to help people with chronic respiratory diseases improve their breathing and quality of life

R

Recovery room A hospital room for the care of patients immediately after surgery. You will wake up here after having lung surgery

Rehabilitation A program to help a person recover and regain function, or adapt to changes, after surgery

Robot-assisted thoracic surgery This is a type of minimally invasive, or keyhole surgery, that involves making small incisions for placement of robotic instruments. Your surgeon controls these instruments from outside of the body to view the inside of the chest cavity and remove cancer

S

Segmentectomy Removal of one or more segments within a lung lobe

Small cell lung cancer One of the two main types of lung cancer. It often starts as a small nodule in the outer area of the lungs and spreads early in the disease

Staging Performing tests to work out how far a cancer has spread

Surgery A procedure performed by a surgeon to remove or repair a part of the body. Also known as an operation or surgical resection

Surgical site The area of the body that will be operated on

S

Thoracotomy A type of surgery in which an incision is made across the back and side of the chest. The ribs are spread apart so the surgeon can access the lung tumour

Tumour A new or abnormal growth of tissue on or in the body. A tumour may be benign (not cancer) or malignant (cancer)

Lung Foundation Australia Services



Information and Support Team



Lung disease information resources



Education webinars



Support groups



Peer-to-peer connections



Pulmonary rehabilitation program information



E-newsletter

This booklet was developed as a joint effort between a range of healthcare providers and consumers, all of whom dedicated their own time to ensure it provided relevant and informative information for people with lung cancer. Thank you to Paula Nelson, Siobhan Dormer, A/Prof Gavin Wright and Dr Morgan Windsor for your review and commentary as well as everyone else who contributed.

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