

Understanding Surgery

A guide for people with cancer, their families and friends



For information & support, call **13 11 20**

Understanding Surgery

A guide for people with cancer, their families and friends

First published April 2014. This edition May 2023.

© Cancer Council Australia 2023. ISBN 978 0 6455233 5 5

Understanding Surgery is reviewed approximately every 3 years.

Check the publication date above to ensure this copy is up to date.

Editor: Ruth Sheard. Designer: Ali Wright. Printer: IVE Group.

Acknowledgements

This edition has been developed by Cancer Council NSW on behalf of all other state and territory Cancer Councils as part of a National Cancer Information Subcommittee initiative. We thank the reviewers of this booklet: Prof Elisabeth Elder, Specialist Breast Surgeon, Westmead Breast Cancer Institute and University of Sydney, NSW; Chanelle Curnuck, Dietitian – Dietetics and Nutrition, Sir Charles Gairdner Osborne Park Health Care Group, WA; Department of Anaesthetics, Perioperative Medicine and Pain Medicine, Peter MacCallum Cancer Centre, VIC; Jessica Feeny, Nurse Unit Manager, Breast, Endocrine and Gynaecology, Royal Adelaide Hospital, SA; A/Prof Richard Gallagher, Head and Neck Surgeon, Director of Cancer Services and Head and Neck Cancer Services, St Vincent's Health Network, NSW; John Leung, Consumer; Rohan Miegel, Senior Physiotherapist – Cancer Care, Flinders Medical Centre, SA; A/Prof Nicholas O'Rourke, University of Queensland and Head of Hepatobiliary Surgery, Royal Brisbane Hospital, QLD; Lucy Pollard, Social Worker, Peter MacCallum Cancer Centre, VIC; Suzanne Ryan, Clinical Nurse Consultant, Department of General Surgery, Sunshine Coast University Hospital, QLD; Rebecca Yeoh, 13 11 20 Consultant, Cancer Council Queensland. We also thank the health professionals, consumers and editorial teams who have worked on previous editions of this title.

Note to reader

Always consult your doctor about matters that affect your health. This booklet is intended as a general introduction to the topic and should not be seen as a substitute for medical, legal or financial advice. You should obtain independent advice relevant to your specific situation from appropriate professionals, and you may wish to discuss issues raised in this book with them.

All care is taken to ensure that the information in this booklet is accurate at the time of publication. Please note that information on cancer, including the diagnosis, treatment and prevention of cancer, is constantly being updated and revised by medical professionals and the research community. Cancer Council Australia and its members exclude all liability for any injury, loss or damage incurred by use of or reliance on the information provided in this booklet.

Cancer Council

Cancer Council is Australia's peak non-government cancer control organisation. Through the 8 state and territory Cancer Councils, we provide a broad range of programs and services to help improve the quality of life of people living with cancer, their families and friends. Cancer Councils also invest heavily in research and prevention. To make a donation and help us beat cancer, visit cancer.org.au or call your local Cancer Council.



Cancer Council acknowledges Traditional Custodians of Country throughout Australia and recognises the continuing connection to lands, waters and communities. We pay our respects to Aboriginal and Torres Strait Islander cultures and to Elders past, present and emerging.



Cancer Council Australia Level 2, 320 Pitt Street, Sydney NSW 2000 ABN 91 130 793 725
Telephone 02 8256 4100 **Email** info@cancer.org.au **Website** cancer.org.au

About this booklet

This booklet has been prepared to help you understand more about surgery, one of the main treatments for cancer. Surgery for cancer usually involves the partial or total removal of a tumour.

It's natural to feel nervous before surgery. Knowing what to expect before, during and after surgery may make you feel less anxious and improve your recovery.

We cannot give advice about the best treatment for you. You need to discuss this with your doctors. However, this information may answer some of your questions and help you think about what to ask your treatment team (see pages 59–60). It may also be helpful to read the Cancer Council booklet about the type of cancer you have.

This booklet does not need to be read from cover to cover – just read the parts that are useful to you. Some medical terms that may be unfamiliar are explained in the glossary (see page 61). You may also like to pass this booklet to your family and friends for their information.

How this booklet was developed – This information was developed with help from a range of health professionals and people affected by cancer who have had surgery.



If you or your family have any questions or concerns, call **Cancer Council 13 11 20**. We can send you more information and connect you with support services in your area. You can also visit your local Cancer Council website (see back cover).



Contents

What is cancer?	4
How cancer is treated	6
Key questions	7
What is surgery?	7
When is surgery used for cancer?	7
Why have surgery?	8
Will I have other cancer treatments?	9
How is surgery done?	10
Will COVID-19 affect my surgery?	11
Will I stay in hospital?	12
How much does surgery cost?	12
Can surgery spread the cancer?	13
What is a surgical margin?	13
What is the role of my GP?	13
Which health professionals will I see?	14
Making treatment decisions	16
Cancer surgery	18
Staging surgery	18
Having a biopsy	19
Surgery to treat cancer	20
Planning and preparation	21
Preoperative assessment	21
Looking after your health before surgery	23
Understanding the risks	24
Informed consent	25
Preparing for surgery	26

The day of the surgery	29
Admission and preparation	29
Anaesthetic	30
The operating theatre	32
Unknown factors	32
Surgical wound	34
Complications during surgery	35
Recovery after surgery	37
Hospital recovery room	37
Hospital ward	40
Complications after surgery	42
Leaving hospital (discharge)	43
Taking care of yourself at home	45
Rehabilitation (rehab)	48
Follow-up appointments	50
Looking after yourself	52
Caring for someone having surgery	54
Being a support person	54
Visiting someone in hospital	55
Life after treatment	56
Support from Cancer Council	57
Useful websites	58
Question checklist	59
Glossary	61
How you can help	64

Key to icons

Icons are used throughout this booklet to indicate:



More information



Alert



Tips

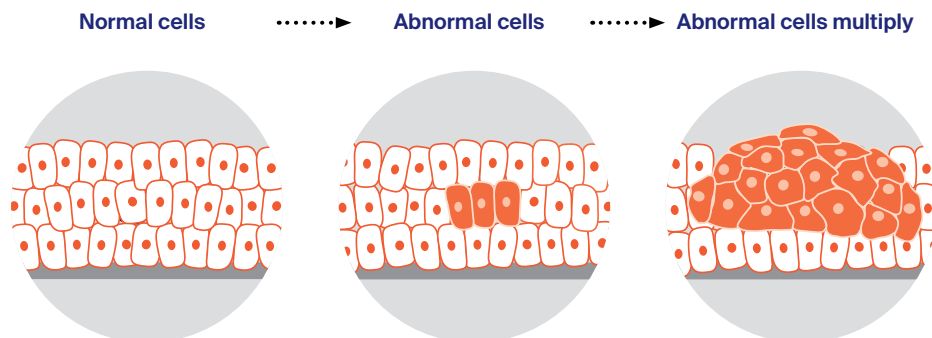
What is cancer?

Cancer is a disease of the cells. Cells are the body's basic building blocks - they make up tissues and organs. The body constantly makes new cells to help us grow, replace worn-out tissue and heal injuries.

Normally, cells multiply and die in an orderly way, so that each new cell replaces one lost. Sometimes, however, cells become abnormal and keep growing. These abnormal cells may turn into cancer.

In solid cancers, such as bowel or breast cancer, the abnormal cells form a mass or lump called a tumour. In some cancers, such as leukaemia, the abnormal cells build up in the blood.

How cancer starts

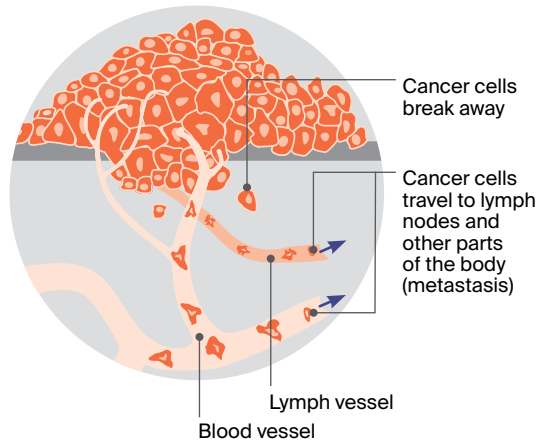
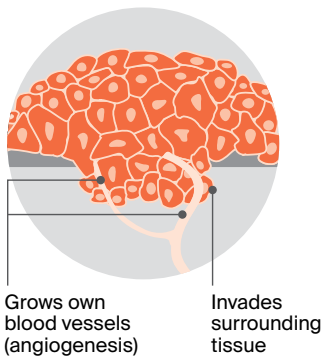


Not all tumours are cancer. Benign tumours tend to grow slowly and usually don't move into other parts of the body or turn into cancer. Cancerous tumours, also known as malignant tumours, have the potential to spread. They may invade nearby tissue, destroying normal cells. The cancer cells can break away and travel through the bloodstream or lymph vessels to other parts of the body.

The cancer that first develops in a tissue or organ is called the primary cancer. It is considered localised cancer if it has not spread to other parts of the body. If the primary cancer cells grow and form another tumour at a new site, it is called a secondary cancer or metastasis. A metastasis keeps the name of the original cancer. For example, bowel cancer that has spread to the liver is called metastatic bowel cancer, even though the main symptoms may be coming from the liver.

How cancer spreads

.....▶ Malignant cancer



How cancer is treated

The treatments recommended by your doctor depend on:

- the type of cancer you have and where it began (the primary site)
- whether the cancer has spread to other parts of your body (metastatic or secondary cancer)
- your general health, age and treatment preferences
- what treatments are available.

Types of cancer treatments

Cancer treatments may be used on their own, in combination or one after the other (e.g. surgery first, then radiation therapy).

surgery

An operation to remove cancer or repair a part of the body affected by cancer.

drug therapies

Drugs that reach cancer cells throughout the body are called systemic treatments. They include:

- **chemotherapy** – the use of drugs to kill cancer cells or slow their growth
- **hormone therapy** – treatment that blocks the effects of the body's natural hormones on some types of cancers
- **immunotherapy** – treatment that uses the body's own immune system to fight cancer
- **targeted therapy** – the use of drugs to attack specific features of cancer cells to stop the cancer growing or spreading.

radiation therapy

The use of a controlled dose of radiation to kill or damage cancer cells so they cannot grow, multiply or spread.

- ▶ Call Cancer Council 13 11 20 or look online for our free booklets and information about different cancer types and their treatments.

Key questions

Q: What is surgery?

A: Surgery is a way to remove cancer from the body or repair a part of the body affected by cancer. It usually involves cutting into the body (see pages 10–11). It may be called a procedure, operation or surgical resection. It is done by one or more surgeons and a team of other health professionals, including an anaesthetist, nurses and technicians (see pages 14–15).

Q: When is surgery used for cancer?

A: Many cancers that are found at an early stage can be removed with surgery, and this may be the only treatment needed. If cancer has already spread to a number of places in the body, surgery may not be the best treatment.

The *Guides to Best Cancer Care* set out the recommended treatment pathways in Australia for many types of cancer. For some cancers, surgery is recommended as the most effective approach, either on its own or in combination with other treatments (see page 9). For other cancers, non-surgical treatments are more effective. For more information, visit cancer.org.au/cancercareguides.



If you have to travel for surgery, there may be a program in your state or territory to refund some of the cost of travel and accommodation. The hospital social worker can help you apply. You may need to keep your original travel tickets, receipts and invoices. Call Cancer Council 13 11 20 for more information.

Q: Why have surgery?

A: Surgery is an important part of treating cancer. It can be used:

To prevent cancer – Preventive or prophylactic surgery removes healthy tissue that doctors believe will probably become cancerous. It is done to reduce a person's risk of developing cancer. The decision to have preventive surgery should be made after talking to qualified health professionals, including a genetic counsellor.

To diagnose or stage cancer – Surgery may be done to confirm a cancer diagnosis. The doctor may remove all or part of a tumour in a procedure called a biopsy. Surgery can also help the doctor determine the size of the tumour and whether the cancer has spread. This is called staging. See pages 18–19 for more information.

To achieve cure – Small, early-stage cancers that haven't spread are often successfully treated with surgery. If the cancer is only in one part of the body, the surgeon may remove the cancerous tissue or a whole organ.

To reduce the size of the cancer – If it is not possible to remove all the cancer without damaging nearby healthy organs, debulking (cytoreductive) surgery may be done. The aim of the surgery is to remove as much of the cancer as possible, to help make other treatments more effective (see opposite page).

To reconstruct a part of the body – Reconstructive or plastic surgery can be done for many different reasons, such as to take control of your appearance, and help improve mobility or function. Examples include breast reconstruction after removal of a breast (mastectomy) or a skin graft after surgery for skin cancer.

To help other treatments – Some procedures are done to assist other cancer treatments. For example, you may have a procedure to insert a tube (catheter) into a large vein in your chest to make it easier to receive chemotherapy.

To relieve symptoms – Surgery can help to relieve cancer symptoms and treatment side effects. This is known as palliative treatment. For example, you may have surgery to treat a blockage in the bowel or to relieve discomfort caused by tumours pressing on nerves.

Q: Will I have other cancer treatments?

A: For some types of cancer, you may be given other treatments before, during or after surgery.

Timing of other cancer treatments with surgery

before (neoadjuvant)	Drug therapies or radiation therapy may be given before surgery to try to shrink the tumour and make it easier to remove.
during (simultaneous)	Two types of treatment are sometimes given at the same time – for example, radiation therapy or heated chemotherapy may be given during surgery.
after (adjuvant)	Drug therapies or radiation therapy may be given after you have recovered from surgery, often when: <ul style="list-style-type: none">• the tumour hasn't been completely removed• cancer has spread to other parts of the body, such as the lymph nodes• there is a chance there may be hidden cancer cells• there is a significant risk that the cancer could come back.

Q: How is surgery done?

A: The way the surgery is done (the approach or technique) depends on the type of cancer, its location in the body, the surgeon's training and the equipment in the hospital or operating theatre.

Each method has advantages in particular situations – your doctor will advise which approach is most suitable for you. Some people have a combination of approaches.

Open surgery – During open surgery, the surgeon makes one or more cuts (incisions) into the body to see and operate on the organs and remove cancerous tissue. The size of the cut can vary depending on the type of surgery. Your surgeon can talk with you about the size of the cut before surgery.

Open surgery is a well-established technique and widely available. It is often used for cancers in the abdomen (belly) or the pelvic area, when it is known as a laparotomy. When open surgery is done on the chest area, it is called a thoracotomy.

Keyhole surgery – Also called minimally invasive surgery, this is when the surgeon makes a few small cuts in the body instead of the large cuts used in open surgery. The surgeon will insert a thin instrument with a light and camera into one of the cuts. The camera projects images onto a TV screen so the surgeon can see the inside of your body. The surgeon inserts tools into the other cuts and removes the cancerous tissue, using the images on the screen as a guide.

Keyhole surgery in the abdomen or pelvic area is called a laparoscopy. When keyhole surgery is done on the chest, it is called a thoracoscopy or video-assisted thoracoscopic surgery.

In many cases, keyhole surgery can lead to a shorter stay in hospital and reduce pain and recovery time.

Robotic surgery – This is a type of keyhole surgery performed with help from a robotic system. The surgical instruments are moved by robotic arms controlled by the surgeon, who sits at a computer console next to the operating table. The console lets the surgeon see a three-dimensional view of the surgical site.

Laser surgery – This procedure uses a laser beam instead of a knife to vaporise or remove cancerous tissue. A laser beam is a strong, hot beam of light.

Cryotherapy – Also called cryosurgery, this is often used to treat skin cancers. Liquid nitrogen is sprayed onto the cancerous tissue to freeze and kill it.

Q: Will COVID-19 affect my surgery?

A: To help stop the spread of COVID-19, your hospital may have put in place some extra procedures. You may need to have a negative rapid antigen test (RAT) before arriving at the hospital on the day of the surgery, hospitals may limit the number of people that visit, and you may have to wear a mask that covers your nose and mouth while you are in hospital.

If you have COVID-19 or are recovering from a recent COVID-19 infection, planned surgery may be delayed for a few weeks. This is to ensure you have recovered and the surgery can be carried out safely. Your hospital will let you know if there are any specific precautions you need to follow.

Q: Will I stay in hospital?

A: Often you will be admitted to hospital to have surgery. This is called inpatient care. The length of your hospital stay depends on the type of surgery you have, the speed of your recovery and whether you have support after you are discharged.

For many procedures, it is common to have surgery and go home on the same day, provided there are no complications. This is called day surgery or outpatient surgery. Your doctor will tell you whether you will have surgery as an inpatient or outpatient.

Q: How much does surgery cost?

A: The cost of surgery varies, depending on the cancer type and stage, the operation you are having, the length of stay in hospital, and whether you have treatment as a public or private patient.

You have a right to know what you will have to pay for surgery and whether there will be any additional costs not covered by Medicare or your health fund. There may be fees you hadn't expected (e.g. if you have surgery as a private patient, there will be separate fees for your surgeon, anaesthetist, operating room and hospital stay).

When you are booked in for surgery, ask your surgeon, anaesthetist and hospital for a written quote that shows what you will have to pay. Talk to your health insurer to see what is covered.

If you are concerned about the cost, you may want to ask your surgeon if there is any way to reduce the costs, get a second opinion from another specialist, or seek surgery as a public patient.

▶ See our *Cancer Care and Your Rights* booklet.



If you speak a language other than English, you can ask your doctor or hospital to arrange an interpreter. Interpreter services can be provided in person or by phone.

Q: Can surgery spread the cancer?

A: In most cases, surgery does not cause cancer cells to spread to other places in the body. Surgeons take steps to prevent this. However, for a few cancers, there is a higher risk. For example, most men with testicular cancer have the entire affected testicle removed. This is because removing only part of the testicle can cause cancer cells to spread during surgery. Talk to your surgeon if you are concerned.

Q: What is a surgical margin?

A: The surrounding tissue that is removed with the cancer is known as the surgical margin. A specialist doctor called a pathologist checks the margin under a microscope to make sure the cancer has been completely removed. If there aren't any cancer cells at the edge of the removed tissue, it is called a clear, negative or clean margin. If there are cancer cells, it is a positive or close margin, and you may need to have more surgery or other treatments.

Q: What is the role of my GP?

A: Your general practitioner (GP) will arrange the first tests to assess your symptoms. If these tests do not rule out cancer, you will usually be referred to a specialist, for example, a surgeon (see next page). It is a good idea to build a relationship with a GP. They can assist you with treatment decisions and follow-up care after surgery. For example, GPs can help with pain control, prescriptions for medicines, or referrals for follow-up blood tests and scans.

Q: Which health professionals will I see?

A: The type of surgeon you see will depend on the location of the cancer. For example, your GP may refer you to a breast surgeon, gynaecological oncologist (female reproductive system), urologist (urinary tract or kidneys; male reproductive system), thoracic surgeon (chest and lung), colorectal surgeon (bowel), or head and neck surgeon. Sometimes your main specialist will be a general surgeon.

Health professionals you may see

surgeon	surgically removes tumours and performs some biopsies; specialist cancer surgeons may be called surgical oncologists
reconstructive (plastic) surgeon	performs surgery that restores, repairs or reconstructs the body's appearance and function
anaesthetist	assesses your health before surgery; administers anaesthesia and looks after you during the surgery; commonly plans your pain relief after surgery
operating room staff	include anaesthetists, technicians and nurses who prepare you for surgery and care for you during the operation and recovery
junior medical staff	doctors at different levels of training, who look after patients under the supervision of a fully qualified surgeon or anaesthetist; includes registrars, fellows and resident medical officers
cancer care coordinator	coordinates your care, liaises with other members of the MDT and supports you and your family throughout treatment; may also be called a nurse consultant or cancer nurse specialist
nurse	administers drugs and provides care, information and support throughout your treatment
pathologist	examines cells and tissue samples to determine the type and extent of the cancer

Treatment options will often be discussed with other health professionals at what is known as a multidisciplinary team (MDT) meeting. This means health professionals work together to plan your treatment and manage care.

It is recommended that complex cancer surgeries are done by an experienced surgeon who works in an MDT in a specialist centre. Centres that do a high number of these procedures may have better outcomes.

pharmacist	dispenses medicines and gives advice about dosage and side effects
dietitian	helps with nutrition concerns and recommends changes to diet during treatment and recovery
psychiatrist, psychologist, counsellor	help you manage your emotional response to diagnosis and treatment; a psycho-oncologist specialises in the field of cancer care
rehabilitation specialist	recommends and oversees treatment to help you recover and return to your usual activities
physiotherapist, exercise physiologist	help restore movement and mobility, and improve fitness and wellbeing; physiotherapists also help with breathing exercises and managing lymphoedema
occupational therapist	assists in adapting your living and working environment to help you resume usual activities after treatment
speech pathologist	helps with communication, voice and swallowing difficulties during and after treatment
social worker	links you to support services and helps you with emotional, practical and financial issues



Making treatment decisions

Sometimes it is difficult to decide on the type of treatment to have. You may feel that everything is happening too fast, or you might be anxious to get started.

Check with your specialist how soon treatment should begin, as it may not affect the success of the treatment to wait a while. Ask them to explain the options, and take as much time as you can before making a decision.

Know your options – Understanding the disease, the available treatments, possible side effects and any extra costs can help you weigh up the options and make a well-informed decision. Check if the specialist is part of a multidisciplinary team (see page 15) and if the treatment centre is the most appropriate one for you – you may be able to have treatment closer to home, or it might be worth travelling to a centre that specialises in a particular treatment.

Record the details – When your doctor first says you have cancer, you may not remember everything you are told. Taking notes can help. If you would like to record the discussion, ask your doctor first. It is a good idea to have a family member or friend go with you to appointments to join in the discussion, write notes or simply listen.

Ask questions – If you are confused or want to check anything, it is important to ask your specialist questions. Try to prepare a list before appointments (see pages 59–60 for suggestions). If you have a lot of questions, you could talk to a cancer care coordinator or nurse.

Consider a second opinion – You may want to get a second opinion from another specialist to confirm or clarify your specialist's recommendations or reassure you that you have explored all of your options. Specialists are used to people doing this. Your GP or specialist can refer you to another specialist and send your initial results to that person. You can get a second opinion even if you have started treatment or still want to be treated by your first doctor. You might decide you would prefer to be treated by the second specialist.

It's your decision – Adults have the right to accept or refuse any treatment that they are offered. For example, some people with advanced cancer choose treatment that has significant side effects even if it gives only a small benefit for a short period of time. Others decide to focus their treatment on quality of life. You may want to discuss your decision with the treatment team, GP, family and friends.

► See our *Cancer Care and Your Rights* booklet.

Should I join a clinical trial?

Your doctor or nurse may suggest you take part in a clinical trial. Doctors run clinical trials to test new or modified treatments and ways of diagnosing disease to see if they are better than current methods. For example, if you join a randomised trial for a new treatment, you will be chosen at random to receive either the best existing treatment or the modified new treatment. Over the years, trials have improved treatments and

led to better outcomes for people diagnosed with cancer.

You may find it helpful to talk to your specialist, clinical trials nurse or GP, or to get a second opinion. If you decide to take part in a clinical trial, you can withdraw at any time. For more information, visit australiancancertrials.gov.au.

► See our *Understanding Clinical Trials and Research* booklet.

Cancer surgery

There are hundreds of different types of surgery used to diagnose, stage and treat cancer. Some are minor and are more commonly called procedures, while others are much bigger operations.

The type of surgery you have will depend on the type of cancer, its location and stage, and your general health. For information about surgery for specific cancer types, see our booklet on the type of cancer you have or call Cancer Council 13 11 20.

Staging surgery

Staging is the process of working out how large the cancer is and whether it has spread to other areas of the body. Knowing the stage of a cancer helps your medical team work out the likely outcome of the disease (prognosis) and recommend the best treatment for you.

Most of the time staging is done before surgery using imaging scans such as CT, PET-CT or MRI, and a needle biopsy (see opposite page). Sometimes, the stage is revised after surgery. This means that the surgery to remove the cancer will help the medical team work out how far the tumour has spread throughout the body. All tissue and fluids removed during surgery are examined for cancer cells by a pathologist.

“During surgery, the doctor removed the tumour and an area around it. The pathology results showed there was cancer in the margin, and I had to have further surgery.” PAGE

Having a biopsy

Before surgery to treat cancer, you may have a medical procedure called a biopsy. Needle biopsies are commonly used to remove a small sample of cells or tissue from the area of concern. If the cancer can't be diagnosed from a tissue sample, you may have surgery to remove the mass so it can be checked for signs of cancer. The biopsy results are used to diagnose and stage cancer.

General information

where you have it	It may be done in the doctor's rooms, at a radiology practice, in hospital, or as day surgery. It is often done using an ultrasound or CT scan to guide the needle to the correct place.
before the biopsy	You will usually have a local anaesthetic to numb the area. In some cases you may need sedation or a general anaesthetic, which puts you to sleep (see page 31).
after the biopsy	A pathologist examines the sample under a microscope to see if it contains cancer cells. The initial results are usually available in a few days, though the full report can take up to 10 days.

Common ways of taking biopsies

fine needle aspiration	A thin needle is used to remove a sample of fluid or cells from the tumour.
punch biopsy	A special tool is used to remove a circle of tissue.
core biopsy	A hollow needle is inserted through the skin to remove a thin piece of tissue (a core).
surgical biopsy	The surgeon cuts into the body to remove all or part of a tumour. It may be called an excision biopsy (removes the whole tumour) or incision biopsy (removes part of the tumour).
endoscopic biopsy	A flexible tube with a light and camera (endoscope) is inserted into the body through a natural opening (such as the mouth) or a small cut. This lets the doctor see inside the body and take a tissue sample. Endoscopies are named after the part of the body affected, e.g. colonoscopy (colon), gastroscopy (stomach).

Surgery to treat cancer

Some terms commonly used to describe cancer surgery include:

- **emergency surgery** – life-saving surgery that has to happen as soon as possible to treat an acute illness
- **wide local excision** – a surgical procedure to remove cancerous tissue and some healthy tissue around it
- **radical excision or resection** – surgery that aims to remove the diseased organ or tumour; may also remove the blood supply, lymph nodes and, sometimes, attached structures
- **lymphadenectomy (lymph node dissection)** – removal of some or all lymph nodes from the area near the cancer
- **inoperable** – not able to be removed surgically; this may be because there is no lump of tissue that can be removed (as with blood cancers), or because it is not possible to safely remove all the cancerous tissue. Other cancer treatments are usually recommended instead.

How long should I have to wait before cancer surgery?

It's common to have to wait for surgery. How long you have to wait depends on the type of cancer, its stage, the surgery you are having, and the hospital's schedule.

The waiting list is organised by how urgently people need surgery. This ensures that people are treated in turn but without waiting for periods of time that would be harmful.

Although most cancer surgery is elective surgery, it usually falls into

the most urgent category, which means it is recommended to take place within 30 days of you and your surgeon agreeing on the procedure.

The recommended time frames for treatment to start are set out in the *Guides to Best Cancer Care* at cancer.org.au/cancercareguides.

Waiting for surgery to begin can be a stressful time – if you are anxious or concerned, speak to your surgeon or call Cancer Council 13 11 20.



Planning and preparation

Although each person's situation is different, this chapter provides a general overview of what may happen before surgery. Procedures vary between hospitals.

You will be told whether you will have surgery as an inpatient or outpatient, how long you will need to stay at the hospital, what to take to hospital and other useful information (see *Preparing for surgery*, pages 26–27). You will usually receive admission instructions from the hospital.

Preoperative assessment

Your surgeon – Your surgeon will ask you to complete a questionnaire about your medical history, including any allergies and any medicines you take. Tell them if you are taking any over-the-counter medicines, vitamins, herbs or other supplements, as these could affect the surgery and your recovery. For example, they may increase the risk of bleeding during surgery or affect the way pain medicines work.

If you don't need to attend a pre-admission clinic (see below), your surgeon will talk to you at one of your usual appointments about the surgery and any preparations you need to make. If you are having surgery privately, the anaesthetist may call you to discuss any issues noted on your pre-admission questionnaire.

Pre-admission clinic – Depending on the surgery you are having and your general health, you may need to attend a pre-admission clinic.

This may be in person or over telehealth. Your medical team will check your fitness for surgery and recommend any tests or other things you need to do to prepare for surgery and ensure the best outcomes.

The health professionals you see at the clinic will vary depending on any other health conditions you have, the type of cancer and the surgery planned, but they could include:

- the surgeon or a resident medical officer or registrar
- the anaesthetist or another member of the anaesthesia team, such as a specialist nurse or registrar
- a physiotherapist to show you exercises to do before surgery to improve the chances of a smooth recovery
- other specialists depending on your medical history and the type of surgery (e.g. you may see a heart specialist)
- specialist nurses such as a cancer care coordinator, breast care nurse or stomal therapy nurse.

You may also have blood tests (including compatibility testing in case you need a blood transfusion), urine tests, heart monitoring tests (ECG) and a chest x-ray, and imaging tests such as CT, MRI or PET-CT scans. You may not need to have all of these tests and scans.

Enhanced recovery after surgery programs

Some hospitals in Australia have programs to reduce the stress of surgery and improve recovery. These are called enhanced recovery after surgery (ERAS) or fast track surgical (FTS) programs.

These programs encourage you to play an active part in your care through pre-admission counselling and education about pain, diet and exercise, so you know what to expect before and after surgery.

Looking after your health before surgery

Talk with your surgeon about ways you can look after your health before surgery. The suggestions below may improve your strength, help you cope with side effects and lead to a smoother recovery. For some people, improving their physical health means they become fit enough for surgery.

Stop smoking



If you smoke tobacco or vape, aim to quit as soon as possible. Continuing to smoke or vape can increase the risk of complications after surgery, and delay your healing and recovery time. Quitting smoking or vaping can be difficult – for support, talk to your doctor or call the Quitline on 13 7848.

Exercise



Surgery places a strain on the body, including the heart and lungs. Exercise will help build up your strength to cope with recovery and reduce the risk of complications after surgery. Talk to your doctor or physiotherapist about the amount and type of exercise that is right for you, and any precautions to take.

Improve nutrition



Healthy food can help your body cope with the stress of surgery, improve your strength, and assist with your recovery. A dietitian can suggest foods to eat to ensure you get enough energy and protein. They may also recommend you have special drinks (nutritional supplements).

Avoid alcohol



Talk to your doctor about your alcohol use. Alcohol can affect how the body works and increase the risk of complications after surgery, including bleeding and infections. Drinking even small amounts of alcohol increases the risk of developing some cancers, so it's best to avoid alcohol after a cancer diagnosis.

Talk to someone



You may find it useful to talk to a counsellor about how you are feeling. This can help you deal with any anxiety you are feeling about having surgery, and help you feel more in control.

Understanding the risks

Almost all medical procedures have risks. Factors to consider when weighing up the risks and benefits of surgery include:

- how long the operation will take
- the type of anaesthetic you will have
- the expected outcome
- what will happen if you don't have the surgery
- your age and general health.

Although advances in surgical techniques have made surgery safer, there are still things that may be unknown or not go as planned (see pages 32–33). Complications may also occur during surgery (see page 35) and after surgery (see pages 42–43).

Some surgeries may cause permanent physical changes such as scarring or loss of a body part. Surgery may also affect your fertility (your ability to conceive a child). If you may be interested in having children in the future, talk to your surgeon about your options before the operation.

► See our *Fertility and Cancer* booklet.

Overall, you and your surgeon should feel that the expected benefits are greater than the possible risks. For some cancers, there are few options other than surgery. For other cancers, there is more than one recommended treatment pathway. Talk to your surgeon about your options. If you are unsure, ask for a second opinion from another specialist (see page 17).

“Don't feel obligated to be treated by the first surgeon you're referred to. It's important to ask for recommendations from family and friends.” KATHERINE

Informed consent

A surgeon needs your agreement (consent) before performing any medical treatment. Adults can give their consent – or refuse it – if they have capacity (ability to make decisions). This means you can understand and remember information about the proposed choices; understand the possible outcomes of your decision; and communicate your decision.

Sometimes consent is not needed, such as in a medical emergency. However, if your surgery is planned, your surgeon will discuss why you need the surgery and its benefits; other treatment options; how they will perform the surgery; and possible side effects, risks and complications.

You will be asked to sign a document indicating that you understand this information and agree to treatment. This is known as giving informed consent. See pages 59–60 for some questions you may want to ask before giving your informed consent for surgery.

► See our *Cancer Care and Your Rights* booklet.

Telehealth appointments

You may be able to have some appointments with your surgeon and other health professionals at home by phone or video call. This is known as telehealth and it can reduce the number of times you need to travel to appointments. This may be particularly helpful if you have to travel a long way to see your doctors. Telehealth can also reduce the risk of catching an infection.

Although telehealth can't replace all face-to-face appointments, you can use it to talk about a range of issues including test results, prescriptions, help with side effects, and nutrition and exercise advice.

For more information, talk to your treatment team, read our *Telehealth for Cancer Patients and Carers* fact sheet or call Cancer Council 13 11 20.

Preparing for surgery

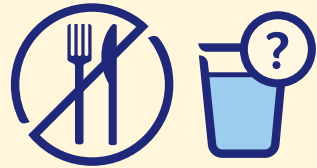
As part of the preoperative assessment, you will be given instructions about how to prepare for the surgery based on your health and medical history.

Bathing and shaving



You will be told when to shower or bathe. This may be the night before and/or morning of the surgery. If you have been told that hair near the surgical site needs to be removed, you may be asked to do it yourself before you go to hospital, or it may be done when you are admitted. In cases where there is a lot of hair at the surgical site, you will be asked to avoid shaving the area yourself, as any cuts to the area can increase the risk of infection. You may also be asked not to wear any make-up, nail polish, moisturiser, perfume or deodorant; and to remove false nails and piercings.

Eating and drinking



Most people are told not to eat (fast) for 6 hours before surgery. This ensures that your stomach is empty before having an anaesthetic, which reduces the risk of food getting into your lungs (aspiration). Depending on the type of operation, your surgeon may tell you to avoid having some types of food and drink. You should not drink alcohol or smoke for at least 24 hours before the operation, or chew gum while you are fasting. In some cases, you can continue drinking clear fluids such as water or will be given supplements to drink up to 2 hours before surgery – your surgeon, anaesthetist or a hospital nurse will advise you about this.

What to take with you



The hospital will let you know what personal items to take with you and what to leave at home. For example, they may tell you to take all your current medicines with you, but suggest you leave valuables, such as jewellery, at home. You should also take your admission letter and any recent x-rays or scans with you. If you are staying in hospital after your operation, you might like to take some toiletries, nightclothes and non-slip, comfortable shoes.

The advice you receive will cover a range of issues. Let your treatment team know if you have any concerns about what you are asked to do.

Organise help



If you are having day surgery, you will need to arrange for someone to take you home when you are discharged and then stay with you for 24 hours after surgery. It's not safe to travel alone or use public transport or a taxi, as you will still be under the effects of the anaesthetic.



If you are admitted to hospital, talk to your doctor about whether you will be able to go home when you are discharged or will need to go to a rehabilitation unit. If you go home, you may need to organise for a relative or friend to stay with you for a few days in case you have any complications. They can also help with washing, dressing and meals. You may also need to organise equipment to help your recovery. See also page 48.

Medicines



Your doctor will tell you whether to keep taking any medicine you are on or stop taking it in the days or weeks before surgery. If you are told to take medicine while fasting, swallow it with a small mouthful of water. If you are on blood thinners, including over-the-counter ones like aspirin and ibuprofen, talk to your surgeon about whether you need to stop taking them.

What time to arrive



You will be told what time to arrive at the hospital, either in the letter confirming the surgery or during a phone call from the hospital on the day before the surgery. You may have to wait for surgery, which can be stressful. It's a good idea to take a quiet activity with you to keep you occupied and feeling calm (e.g. a book or magazine).

Key points about preparing for surgery

Preoperative assessment

- Your medical team will look at your medical history and test results to assess if you are fit enough for surgery.
- You may need to attend a pre-admission clinic a few weeks before surgery.
- Your surgeon may suggest some things you can do to improve your outcomes from surgery, including stopping smoking, being physically active, eating well and avoiding alcohol.
- Tell the surgeon and anaesthetist if you are taking any over-the-counter or herbal medicines, as these could affect the surgery and your recovery.
- Your surgeon will explain whether you will have surgery as an inpatient or outpatient.

Informed consent

- There are risks associated with any surgery. Your surgeon will explain these to you.
- A surgeon needs your agreement (consent) before performing the operation. Receiving relevant information about the benefits and risks of surgery before agreeing to it is called informed consent.
- It is important to understand what you will have to pay for surgery and whether there are any costs not covered by Medicare or your health fund.

Preparing for surgery

You will be given instructions based on your health and medical history. Areas covered may include bathing and shaving, eating and drinking, medicines you are taking, what to take with you, and transport home from the hospital.

The day of the surgery

This chapter provides a general overview of what may happen on the day of the surgery. Procedures vary between hospitals and according to whether you have surgery as an inpatient or outpatient.

Admission and preparation

Arrival – The hospital will give you a time to arrive, called the admission time. When you're admitted, you might not know the exact time of the surgery, but you'll probably know if it will be in the morning or afternoon. Sometimes there are unexpected delays due to emergencies and the order of the operating list may change – the receptionists and nurses will keep you informed.

Getting ready – Before you go to the operating theatre, a nurse will:

- review your medical history and whether you have any allergies
- check you have had a recent negative rapid antigen test for COVID
- place an identification band around your wrist or ankle
- ask when and what you last ate and drank
- check your temperature, blood pressure, pulse, height, weight and blood oxygen levels
- confirm the procedure you are having.

You will be directed to a bed and asked to change into a surgical gown. If the surgery is to a part of your body with hair, it may be clipped.



Sometimes surgery is cancelled on the day. Whatever the reason, this can be very stressful. The hospital staff will talk to you about the next steps and your ongoing plan of care.

Preventing blood clots – All surgery and some cancers increase the risk of developing blood clots in the deep veins of the legs or pelvis (deep vein thrombosis or DVT). You will usually be given compression stockings to wear on your legs during and after surgery to reduce the risk. Some people may have special cuffs placed around the legs to keep the calf muscles moving during, and sometimes after, surgery. You may also be given an injection of blood-thinning medicine.

Personal possessions – Your clothes and other possessions may be stored under the bed in a bag, in a locker or given to your support person. It's best to leave valuables at home.

Fall prevention – You may be given non-slip socks to wear while you are in hospital to help prevent you falling over and hurting yourself.

“When I spoke with the anaesthetist before my mastectomy, we talked about which options for controlling pain would be best for me because some pain medicines made me feel sick.” BETH

Anaesthetic

A specialist doctor called an anaesthetist will give you drugs to send you to sleep or to numb an area of the body. This is called anaesthesia and it will prevent you feeling pain or discomfort during surgery. The anaesthetist may also give you other drugs to manage pain and nausea.

When you meet your anaesthetist before surgery, it is important to tell them about any medical conditions or drug allergies you have, when you last ate or drank, and if you have had a previous reaction to an anaesthetic (including if you took a long time to wake up).

Different types of anaesthetic

There are different types of anaesthetic used for surgery. The type you have will depend on the procedure you are having and your overall health. You may have more than one type of anaesthetic during surgery.

light or conscious sedation

You will be given drugs to relax you and make you sleepy. You will still be able to respond to directions from your surgeon but may not remember what happened during the procedure.

local anaesthetic

This involves numbing the skin or part of the body being operated on. It is usually done as an injection, but drops, sprays or ointments may be used instead. You may also be given a sedative to help you relax. You are still awake during surgery, but you won't feel any pain or discomfort. The numbness typically lasts for several hours to a day.

regional anaesthetic (nerve block)

A local anaesthetic is injected through a needle placed close to a nerve or nerves near the surgical site. This numbs the part of the body being operated on. You may be given a light sedative to help you relax, or stronger medicine to put you to sleep.

general anaesthetic

You will be given strong drugs to make you go to sleep (fall unconscious). Both injectable drugs and gases can be used. Some people say that having a general anaesthetic feels like a deep, dreamless sleep. You may experience some side effects, such as nausea and confusion, when you wake up from general anaesthetic. Most of these effects are temporary and are easily managed by your medical team – see page 39 for information about side effects.

The operating theatre

You might walk into the operating theatre or lie on a bed that is wheeled into the operating theatre. This is a purpose-designed, very clean room where the surgery occurs. The surgical team will wear caps, masks and gowns to help prevent infection.

The anaesthetist will put a small tube (cannula) into a vein in the back of your hand or arm. The anaesthetic drugs will be injected into the cannula. You might feel a slight stinging sensation, but once the drugs start to work you won't be aware of what's happening.

During surgery under general anaesthetic, a machine called a ventilator helps you breathe or may breathe for you. The anaesthetist constantly checks your vital signs (heart rate, temperature, blood pressure and blood oxygen levels) to ensure they remain at normal levels. They also give you pain medicine so you are comfortable when you wake up.

When the surgery is finished, the anaesthetist will stop giving you the anaesthetic drugs and may give you other drugs to reverse the effects of general anaesthesia. You'll be taken to the recovery room (see page 37), and your vital signs will be monitored until you are fully awake.

Unknown factors

There are some things the medical team may not know until the surgery is in progress. The surgeon will discuss these with you beforehand.

Taking a different approach – The surgeon may start the operation as keyhole surgery but have to change to open surgery. This is usually so they can more easily reach the tumour or safely deal with any complications that may arise.

Adding another surgeon – Another surgeon may be in the theatre to assist your surgeon. This is standard practice, as the extra support can help achieve the best outcome for you. For example, a gynaecological surgeon may ask a colorectal surgeon to assist if they discover gynaecological cancer extending into the bowel.

Removing extra tissue – It may be difficult for your surgeon to tell you exactly what will be removed during the surgery, as scans don't always detect all of the cancer. You may be asked to give consent to remove extra tissue if the cancer is found in places not shown on scans.

Creating a stoma – The medical team will talk to you before surgery if they might need to create an artificial opening in the body (stoma). An example of a stoma is a colostomy. This is when part of the large bowel is brought out to the surface of your abdomen through an opening created surgically, and a disposable bag is attached to collect waste matter. A stoma may be temporary or permanent.

Needing a blood transfusion – If you lose a lot of blood during surgery, some blood or blood products can be given to you through a vein (transfusion). Blood from a donor is usually used. There are strict screening and safety measures in place, so transfusion is generally very safe. Let your surgeon know beforehand if you refuse to have a transfusion or you are worried about needing a blood transfusion.

“Before the surgery, my doctor discussed the complications that could occur afterwards. It was full on hearing about it, but I wanted to know everything that could happen.” KATHLEEN

Surgical wound

Your surgeon will close up the wound (incision) created during the surgery. Their approach will depend on the part of your body affected and the kind of surgery you had (e.g. open or keyhole surgery).

Common ways to close a surgical wound include:

- **sutures or stitches** – sewing the wound closed using a strong, threadlike material that can dissolve or will be removed at a later date (see *Follow-up appointments*, page 50)
- **staples** – small metal clips that will be removed by your doctor once the wound has healed
- **glue** – clear liquid or paste that dissolves over time; used to seal minor wounds (up to 5 cm) or applied on top of sutures
- **adhesive strips** – pieces of tape placed across the wound to hold the edges together; may be used with sutures.

Wound coverings (dressings)

The wound will usually be covered with a surgical dressing to keep it dry and clean. This may be a waterproof adhesive dressing or a bandage. The dressing will be changed as needed. If you have surgery as an inpatient, the nurses will look at the wound to see if it's healing and to check for bleeding or signs of infection. When you have a shower, if the dressing is not waterproof it may need to be covered or taken off and reapplied afterwards.

The wound may feel itchy or irritated after surgery. Tell the nurses if this happens – it could be a sign it's healing, but it may also be a problem, such as an allergic reaction to adhesive tape.

Before you leave hospital, the nurses will give you instructions about how to care for your wound and dressing.

“After the wide local excision, the wound looked red and was sore, but this improved.” PETE

Complications during surgery

Sometimes problems or complications occur during surgery. It's very unlikely that all of the complications described here would apply to you. Your surgeon can give you a better idea of the risks of your operation. Generally, the more complex the surgery is, the higher the chance of problems. Read about some complications after surgery on pages 42–43.

Bleeding – You may lose blood during surgery. Your surgeon will usually manage and control bleeding. Sometimes, you may receive a blood transfusion during surgery to replace lost blood (see page 33).

Damage to nearby tissue and organs – Most internal organs are packed tightly together, so operating on one part of the body can affect nearby tissue and organs. This may alter how other organs work after surgery – for example, the surgeon's handling of the bowel during pelvic surgery may cause temporary constipation (difficulty passing a bowel motion) or a build-up of gas in the abdomen.

Drug reactions – In rare cases, some people have a bad reaction to anaesthetic or other drugs used during surgery. This can lead to changes in blood pressure, heart rate and breathing. Your anaesthetist will monitor these signs throughout the surgery and quickly treat any changes if they occur.



Tell your doctor if you've had any previous reactions to over-the-counter, prescription or herbal medicine, even if the reaction was small.

Key points about the day of the surgery

Admission

- The hospital will tell you when to arrive (the admission time).
- You may not know the exact time of the surgery, but you'll probably know if it is scheduled for the morning or afternoon.
- A nurse will go over your medical history and you will change into a surgical gown.
- If there is hair on the part of your body being operated on, it may be clipped.

Anaesthetic

- The anaesthetist will give you drugs to prevent pain and discomfort (anaesthetic or anaesthesia).
- A general anaesthetic puts you into an unconscious state (like being asleep).
- Local and regional anaesthetics numb parts of the body.
- It's rare to have an allergic reaction to anaesthetic.
- The anaesthetist will monitor you throughout surgery and manage any reactions that occur.

The surgery

- There may be unknown factors about the surgery. For instance, another surgeon may be called in to assist, or you may need a blood transfusion. Your surgeon will discuss these possibilities with you before the surgery.
- Surgical wounds can be closed up using sutures or stitches, staples, glue or adhesive strips.
- Complications may occur during surgery. Your surgeon will explain the risks.

Recovery after surgery

After every surgery there is a period of recovery. How long this takes will depend on your age, the type of surgery you had, and your overall fitness and health. It may take a few days or a week to recover from a small operation, but it can take a few months for a large procedure.

It's important to follow your surgeon's advice, be patient and give yourself time to recover. Some people may need extra support to help them return to their usual day-to-day activities (rehabilitation, see pages 48–49).

Hospital recovery room

After the operation is over, you will be moved to a recovery room. This is an area near the operating theatre where there is monitoring equipment and specially trained staff. In some hospitals, it may be called a recovery ward or post-anaesthesia care unit. It might be a shared space or a private room.

People who need a high level of care will go into the high dependency unit (HDU) or intensive care unit (ICU) for the first night or for a few days. You will be moved out of the HDU or ICU as your condition improves. Your surgeon will tell you before surgery if it's likely you will be moved to one of these units.

While the anaesthetic wears off, a recovery nurse will check your wound, pain levels and vital signs. They will also give you medicine or fluids to help reduce side effects caused by the anaesthetic (see page 39). You may have several tubes in place (see next page).

Tubes and drains you might have

intravenous (IV) drip	<ul style="list-style-type: none">• inserted into a vein in your arm or hand• gives you fluids until you can eat and drink again• also used to give pain relief and other medicines• may be in place for a few hours or a few days, depending on the surgery
breathing tube	<ul style="list-style-type: none">• inserted down your throat to help you breathe during surgery• usually removed while you are under anaesthetic, but may stay in if you go to ICU
surgical drain	<ul style="list-style-type: none">• a tube placed in the wound to drain fluid from the surgical site into a small bottle or bag• may stay in for a few days or a few weeks, depending on how much fluid is being collected and the type of operation
urinary catheter	<ul style="list-style-type: none">• a thin tube that drains urine from your bladder into a bag• may stay in for a few hours or a few days, depending on the type of operation• usually removed when you start walking after surgery and can get to the toilet
nasogastric (NG) tube	<ul style="list-style-type: none">• a thin tube placed through your nose into the stomach• used to remove fluid from the stomach until bowel function returns to normal or for feeding (see below)
feeding tube	<ul style="list-style-type: none">• may be needed if you are unable to eat and drink after surgery• a tube is placed into your stomach or small bowel, either through your nostril (NG tube) or an opening on the outside of your abdomen (gastrostomy tube)• usually temporary, but sometimes permanent

Side effects of general anaesthetic

General anaesthesia is very safe, but like any medical procedure, you may experience some side effects. Most side effects occur immediately after surgery and don't last long. Tell your medical team if any of these side effects get worse or worry you.

Nausea and vomiting – You may feel sick (nausea) or vomit after an anaesthetic, but this usually improves within a day or two. You may be given medicine to control this. Sometimes vomiting makes you feel better.

Chills and dizziness – Your body temperature often drops in the operating theatre and you may wake up shivering or feeling cold. Some people feel dizzy from the anaesthetic or because they are dehydrated. These side effects will be monitored in the recovery room.

Agitation – You might cry or feel restless and anxious when you wake up. Some people feel like their arms or legs are twitchy. This is a normal reaction.

Sore throat or hoarseness – The tube placed down your throat to help you breathe while you are asleep can leave you with a sore throat or a hoarse voice after it is removed. This should get better in a few days.

Mental effects – You may feel confused, groggy or “fuzzy” in the minutes or hours after you wake up, and you may not remember why you had surgery.

Most people make a full recovery within a few hours. In some cases, this may take around 24 hours, particularly in elderly people and those who had memory problems before surgery.

Rarely, people have ongoing mental effects (such as fogginess or mild memory loss) for more than a week. This is called postoperative cognitive dysfunction. There is no evidence that anaesthesia worsens how the brain works (cognitive function) in the longer term.



You should not drive, operate complex equipment or sign important documents for at least 24 hours after a general anaesthetic.

Leaving the recovery room

You will leave the recovery room when the nursing staff are satisfied that your vital signs are stable and that you are comfortable.

- **Day surgery** – You will be moved to the day surgery unit where you will get dressed and have something to eat and drink before going home. Your surgeon will often see you here to discuss the procedure.
- **Inpatient surgery** – If you are staying in hospital to recover, you will be moved from the recovery room to a ward.

Hospital ward

While you are recovering on the ward, nurses and doctors will check your progress regularly. They will usually take your blood pressure, pulse and temperature, look at your wound and change the dressing as needed. Your health care team will also help you with the following:

Pain control – It is common to have some pain and discomfort for several days after surgery, but this can be controlled with pain medicines. Pain usually improves as the wound heals. Let your doctor or nurse know if you are in pain so they can adjust your medicines to make you as comfortable as possible. Do not wait until the pain is severe. Pain relief options may include:

- an injection or ongoing infusion of local anaesthetic into the wound, near the spinal column (epidural), or near a nerve to block pain to a specific area of the body (nerve block)
- an injection of strong pain medicine into a muscle or under the skin
- a PCA (patient-controlled analgesia) device, which delivers a set dose of medicine through a plastic tube into a vein when you press a button
- tablets that can be immediate release (fast acting) or slow release (long acting); some tablets are taken regularly, others you can ask for if you still have pain.

Strong pain medicines can make bowel motions difficult to pass (constipation) so you may also be given laxatives.

► See our *Understanding Cancer Pain* booklet.

Movement – Based on the surgeon’s recommendations, the nurses or a physiotherapist will encourage you to get out of bed and move around as soon as you feel up to it and it is safe to do so. Moving around as much as possible will speed up your recovery and reduce the chance of blood clots (see page 30), chest infections and wound infections (see page 42). A physiotherapist may teach you some breathing or coughing exercises to help keep your lungs clear.

Eating and drinking – Most people can start eating and drinking either the same day or the day after surgery. Some people begin by drinking clear fluids, moving onto other kinds of fluid, then plain foods and small meals. Other people receive nutrition through a drip or a feeding tube for a short while rather than eating (see page 38). If you go home with a feeding tube, a dietitian will let you know the type and amount of feeding formula you need to take and how to care for the tube. If the cancer and surgery affect your digestive system (e.g. mouth, throat, oesophagus, stomach, bowel), you will need to follow the dietitian’s advice about eating and drinking.

► See our *Nutrition for People Living with Cancer* booklet.

Bathing – The timing of your first shower depends on how you are feeling and the type of surgery that you have had. Some people shower the same day or the next day if they are up to it. The nurses will probably encourage you to shower as soon as possible because it is a good reason to get out of bed. They can help you if you need to remove dressings or cover them to keep them from getting wet. If you can’t get up and move, the nurses will help you bathe in bed.

Complications after surgery

Sometimes problems or complications occur after surgery. It's very unlikely that all of the problems described here would apply to you. Your surgeon can give you a better idea of the actual risks for your type of surgery. Generally, the more complex the surgery is, the higher the chance of problems. Most complications are minor and can be treated easily, but some can have serious consequences.

Infection – The biggest risk of infection after surgery is at the wound site, but infection can also occur in the chest, in the urinary tract, and around the catheter site. Sometimes the doctor will prescribe medicine before surgery to prevent infection (prophylactic antibiotics). In hospital, you will be checked for signs of infection, such as tenderness, redness, swelling or a discharge around the wound; cloudy urine; cough; shortness of breath; and chest pain. After you go home, if the wound site is red, getting bigger, painful or oozing, have it checked by your GP, nurse or doctor. If you are given antibiotics, it is important to take the full course to completely kill bacteria and prevent infection.

Bleeding – Bleeding can happen inside the body (internally) or outside the body (externally). Internal bleeding can occur if a blood vessel breaks free after surgery, and external bleeding can occur if a wound opens up. Your medical team will manage any bleeding after surgery. This could include giving you a blood transfusion (see page 33), further surgery to stop the bleeding, or an iron infusion to help restore haemoglobin levels in the blood.

Blood clots or DVT – To reduce the risk of developing blood clots in the deep veins of the legs or pelvis (deep vein thrombosis or DVT), you may have to wear compression stockings or have pills or injections of blood-thinning medicine for a couple of weeks after the surgery.

Lung problems – After surgery, it may be painful to breathe or cough for a period of time, particularly if you have had surgery to your chest or abdomen. A physiotherapist will teach you breathing or coughing exercises to help keep your lungs clear and reduce the risk of a chest infection. You will be encouraged to get out of bed and move around with help from the nurses and physiotherapists. Your medical team will observe your breathing and provide medicine to control any pain.

Weak muscles (atrophy) – Although you'll need to rest after surgery, it's important to get up and move around when it is safe to do so. Based on your surgeon's recommendations, a physiotherapist or nurse may help you to get moving and give you advice about the best exercises to do. If you aren't mobile, your muscles may get weak (atrophy). Generally, the sooner you are able to get up and move, the better your recovery will be.

Lymphoedema – If lymph nodes are removed, fluid can build up in the tissues under the skin and cause swelling. It's common to have some swelling after surgery but this usually settles in the weeks afterwards. If this swelling builds up over weeks or months, it is known as lymphoedema. It is important to seek help as soon as possible because early diagnosis and treatment lead to better outcomes.

▶ See our *Understanding Lymphoedema* fact sheet.

Leaving hospital (discharge)

Day surgery – If you have day surgery, you will be discharged from hospital sometime after you leave the recovery room. It's important to arrange ahead of time for someone to take you home after surgery. The nurses will contact this person to tell them when you'll be ready to leave. If you live alone, you will need to organise another adult to stay with you the first night you are home, or arrange to stay with family or friends.

Inpatient – If you have surgery as an inpatient, you will be discharged when the medical team thinks you are healthy enough to leave. Some people stay in hospital for a day or two, but others stay for longer – in some cases several weeks or, rarely, months.

Paperwork – Along with discharge papers, the medical team may give you other information, such as:

- scan and test results
- instructions about recovering at home (see pages 45–47)
- guidelines about when to contact your doctor (see opposite page)
- the date for your follow-up appointment with your surgeon
- a medical certificate setting out how much time you will need off work
- insurance forms, bills or receipts
- a list of any medicines you are taking, prescriptions or a small supply of medicines (such as pain relief)
- referrals to support services such as a dietitian or social worker.

If you want specific paperwork (e.g. a letter for your employer) and it isn't offered, you can ask for it from the doctor, nurses, receptionist or social worker. You may want to make a copy of your paperwork for your records. In most cases, a copy is automatically sent to your GP.

Where to recover – Most people go home after discharge, but some go to an inpatient rehabilitation centre (often called a rehab hospital) to help them get safely back on their feet before going home. See pages 48–49 for information about rehabilitation.



Your medical team will give you information so you can continue to recover safely at home. If you are given medicines to take, make sure you know when and how to take them. For a list of questions to ask before you leave hospital, see page 60.

Taking care of yourself at home

Looking after yourself at home is one of the most important parts of your recovery. Your progress will depend on the type of surgery you have, what support you have at home, your overall fitness and health, and whether you are having other cancer treatments.

A community nurse may visit to check on you and change any dressings, or you might see your GP. You may need to organise some equipment to help you move safely, such as a walker or shower chair. Try to organise this before surgery so it is ready when you get home. A physiotherapist or occupational therapist can show you how to use this equipment.

Keep in mind that recovery will take time, and try not to expect too much of yourself. Although it's a good idea to stay active and do gentle exercise while you are recovering, it's also important to follow your surgeon's advice about any restrictions.

When to call the doctor or go back to hospital

The wound, pain and scar will take time to settle. Your medical team will tell you what to look out for and when to seek help. As a general guide, contact your doctor immediately or go to the nearest hospital emergency department if you have any of the following symptoms:

- increased bleeding, swelling, redness, pus or drainage, or an unusual smell from the wound or around any tubes, drains or stomas
- a fever of 38°C or higher
- chills or shivering
- swelling in your limbs
- sudden, severe pain
- pain or burning when urinating
- nausea or vomiting for 12 hours or more
- trouble breathing, walking or doing things you could do before surgery
- other symptoms or changes that the surgeon warned you to look out for.

What to expect when you return home

When you get home, be guided by your doctor's instructions, but these general suggestions may help. If you don't have support from family, friends

Pain relief



- Take pain medicine as prescribed by your health care team.
- Strong pain medicine is usually used for only a short time after surgery as it can make you feel confused, sick or constipated.
- If your pain isn't controlled, becomes worse, or if the medicine causes side effects, talk to your surgeon, the nurse listed on your discharge paperwork, or your GP.
- If your pain is severe, consider going to the emergency department.
- ▶ See our *Understanding Cancer Pain* booklet.

Wound care



- Follow any instructions you are given about how to care for the wound.
- If the wound is left open, clean it with mild soap and warm water and pat it dry. Avoid putting lotions or perfumes on the wound and the area around it.
- If you have dressings, you might need to keep them dry while you shower.
- Your doctor or nurse will remove any stitches or staples at a follow-up appointment.
- If adhesive strips have been used, they should fall off within a few weeks, or you will be told when to remove them. Removing the strips too soon might cause the wound to open.
- Any bruising around the surgical site will fade over a few weeks.
- Avoid touching the wound or picking at scabs.

Drains and stomas



- Some people go home with a temporary drain or tube near the surgical site to collect extra fluid leaving the body (see page 38).
- Before you leave the hospital, nurses will show you how to look after the drains at home until they are ready to come out. You may need to record how much fluid collects in the bag attached to the drain.
- Some people go home with a stoma (see page 33). A stomal therapy nurse will see you after the operation to teach you how to look after the stoma.

or neighbours, ask your nurse or a social worker at the hospital whether it is possible to get help at home while you recover.

Eating and drinking



- Your health care team may instruct you to follow a special diet.
- Some people feel sick after surgery. When you feel like eating, try basic foods such as rice and toast before going back to your usual diet.
- Eat fibre and drink plenty of water to avoid constipation, and avoid alcohol, especially if you are taking pain medicine.
- To help your body recover from surgery, eat a well-balanced diet that includes a variety of foods.
- A dietitian can help with any eating issues (see page 49).
- ▶ See our *Nutrition for People Living with Cancer* booklet.

Self-care



- Unless you've been told otherwise, you will be able to shower. Gently wash your body and pat yourself dry. Depending on the type of surgery you had, you may not be able to take a bath for a few weeks after surgery.
- Strong pain medicines and long periods in bed can make you constipated. Avoid straining when going to the toilet. Talk to your treatment team about taking laxatives if needed.
- Some people have trouble controlling their bowel or bladder after some types of surgery. Incontinence is usually temporary. For support, see a continence nurse or call the National Continence Helpline on 1800 33 00 66.

Daily activities



- You may find that you tire easily and need to rest during the day. Get plenty of sleep and take breaks if you feel tired.
- Ask family or friends to assist you with household tasks, such as cooking and laundry.
- Check with your surgeon when you can start doing your regular activities and what to avoid – such as heavy lifting, swimming, driving or sexual intercourse.
- Try to do some gentle exercise. This can help reduce tiredness, build up strength, lift mood and speed up a return to usual activities. Follow your doctor's advice about any restrictions.
- ▶ See our *Exercise for People Living with Cancer* booklet.

Scar management

Surgery often leaves a scar. In most cases, your doctor will do everything they can to make the scar less noticeable. How your scar looks will change over many months. Most scars will improve and fade with time.

Reducing stiffness and pain – Once the wound is fully healed, you may find it helpful to:

- moisturise the scar to reduce any itching
- do stretching exercises to improve your range of motion
- massage the scar a few times a day
- apply silicone tape or gel strips that put gentle pressure on the scar.

Precautions – It's important to avoid putting stress or strain on the wound until it is healed and there are no other medical issues such as blood clots, infections or trapped pockets of fluid under the skin (seroma). Ask your surgeon when you can start treating your scar. It's also important to protect scars from the sun, as sunburn can worsen scarring.

Other treatments – Talk to your surgeon, a physiotherapist or occupational therapist about other ways to improve the appearance of scars. A dermatologist may be able to treat problem scars with a laser.

Rehabilitation (rehab)

Depending on the type of surgery you have, it may take many weeks or months to fully recover. A range of therapies can support you in your recovery and show you ways to manage any longer term changes. These therapies are known as rehabilitation. Hospital staff or your GP can organise referrals to any support services you need after surgery.

Rehabilitation may be available at your cancer treatment centre, through a rehabilitation specialist at a rehabilitation hospital, or at home. Your GP or specialist may also refer you to allied health professionals (e.g. physiotherapist, occupational therapist) in private practice. Ask to see a therapist experienced in working with people after cancer surgery.

Some common types of rehabilitation therapy



Physiotherapy

A physiotherapist can help you learn how to move more easily, improve your range of motion, develop muscle strength and improve balance. They can tailor a program to help you return to your usual activities. Visit choose.physio/find-a-physio.



Speech therapy

A speech pathologist can help restore speech if your ability to speak clearly has been affected by surgery. They also work with people who have difficulty swallowing food and drink after cancer treatment. Visit speechpathologyaustralia.org.au.



Occupational therapy

An occupational therapist can help you manage everyday personal tasks (e.g. showering, dressing). They can also give you strategies and aids to help you manage fatigue and maintain your independence. Visit otaus.com.au/find-an-ot.



Exercise physiology

An exercise physiologist can help with increasing physical activity and exercising safely to improve circulation and mobility, increase your heart and lung fitness, and help you return to your usual activities. Visit essa.org.au/find-aep.



Nutritional support

A dietitian can explain how to manage any special dietary needs or any ongoing problems with food and eating after surgery. They can also help you choose the best foods for your situation. Visit dietitiansaustralia.org.au.

Follow-up appointments

The timing of your first follow-up appointment will depend on the type of surgery and your recovery. You may see the surgeon or your GP, depending on where you live and what the medical team recommends.

Your doctor will check your wound and remove any stitches, staples, adhesives or drains that are still in place. If your pathology results are available, your doctor will discuss these with you and tell you whether you will need any further treatment. You will also be given advice about getting back to your normal activities. You may need to ask about your specific concerns, such as driving, exercising and going back to work.

You may continue to have regular appointments with your surgeon to monitor your health, manage any long-term side effects and check that the cancer hasn't come back or spread. During these check-ups, you will usually have a physical examination and you may have blood tests, x-rays or scans. You will also be able to discuss how you're feeling and mention any concerns you may have.

When a follow-up appointment or test is approaching, many people find that they think more about the cancer and may feel anxious. Talk to your treatment team or call Cancer Council 13 11 20 if you are finding it hard to manage this anxiety.

How often you will need to see your doctor will depend on the type and stage of cancer. Check with your doctor if you are unsure about your follow-up plan. Check-ups will be needed less often if you have no further problems. Between follow-up appointments, let your doctor know immediately of any symptoms or health problems.

Key points about recovery

Recovery in hospital

- After surgery, you will be moved from the operating theatre to a recovery room. Some people will go into the high dependency unit (HDU) or intensive care unit (ICU).
- You may have several tubes or drains that remove waste and fluid from your body.
- While in hospital, nurses will check your progress and help you with pain control, moving around, eating and drinking, and bathing.

Side effects/ complications

- General anaesthetic can cause side effects such as nausea, chills, dizziness and agitation. These will improve over time.
- Possible complications after surgery include infection, bleeding, blood clots, lung problems, weak muscles and lymphoedema. Steps will be taken to prevent or manage these.

Recovery at home

- You will be discharged from hospital when the medical team thinks you are well enough to leave.
- You will receive referrals to any support services that you may need after surgery, such as a dietitian or social worker.
- When you first get home, you will need to keep an eye on pain management and wound care. See your doctor or go to hospital if you experience major side effects.
- The timing of your first follow-up appointment will depend on the type of surgery you had and your recovery.
- You may need rehabilitation (rehab) to help regain physical strength and get back to your usual daily activities.

Looking after yourself

Cancer can cause physical and emotional strain, so it's important to look after your wellbeing. Cancer Council has free booklets and programs to help you during and after treatment. Call 13 11 20 to find out more, or visit your local Cancer Council website (see back cover).

Emotions – For some people, having cancer is like an emotional roller-coaster. You may have mixed feelings before, during and after surgery. It's natural to feel anxious, vulnerable, scared or angry. It may help to talk about your feelings with a counsellor or psychologist.

► See our *Emotions and Cancer* booklet.

Body image – Having surgery can change the way you think and feel about yourself (your confidence and self-esteem). You may feel less confident about who you are and what you can do. This feeling is common whether your body has changed physically or not. Give yourself time to adapt to any changes.

► For information and support about managing changes to your body, such as scars or weight changes, call Cancer Council 13 11 20.

Sexuality – Surgery for cancer can affect your sexuality in physical and emotional ways. The impact of these changes depends on many factors, such as treatment and side effects, your self-confidence, and if you have a partner. Although sexual intercourse may not always be possible, closeness and sharing can still be part of your relationship.

► See our *Sexuality, Intimacy and Cancer* booklet.

Contraception and fertility – If you can have sex, you may need to use certain types of contraception for a time. Your doctor will explain what

precautions to take. They will also tell you if treatment will affect your fertility permanently or temporarily. If having children is important to you, discuss the options with your doctor before starting treatment.

► See our *Fertility and Cancer* booklet.

Relationships – Surgery is stressful, tiring and upsetting, and this may strain relationships. Give yourself time to adjust to what’s happening, and do the same for those around you. It may help to discuss your feelings with each other.

Work and money – Cancer can change your financial situation, especially if you have extra medical expenses or need to stop working. Getting professional financial advice and talking to your employer can give you peace of mind. You can also check whether any financial assistance is available to you by asking a social worker at your hospital or treatment centre or calling Cancer Council 13 11 20.

► See our *Cancer and Your Finances* and *Cancer, Work and You* booklets.

Complementary therapies – Complementary therapies are designed to be used alongside conventional medical treatments. Therapies such as massage, relaxation and acupuncture can increase your sense of control, decrease stress and anxiety, and improve your mood. Let your doctor know about any therapies you are using or thinking about trying, as some may not be safe or evidence-based.

► See our *Understanding Complementary Therapies* booklet.



Alternative therapies are therapies used instead of conventional medical treatments. These are unlikely to be scientifically tested, may prevent successful treatment of the cancer and can be harmful. Cancer Council does not recommend the use of alternative therapies as a cancer treatment.



Caring for someone having surgery

If someone you care about is having surgery to treat cancer, it could be an anxious and uncertain time for you too. It can be difficult to watch someone go through this experience – you may want to help them, but not know how.

Being a support person

You may want to offer to be the support person. This involves providing practical and emotional help to the person with cancer before, during and after surgery. Some of the ways you can help include:

Before surgery – You can accompany the person to appointments and help them make an informed decision about their treatment. Once they decide to have surgery, you can help them follow any instructions they are given, organise their personal items and paperwork, and provide transport to and from the hospital.

On the day of surgery – The staff can take your contact details and call you when the surgery is finished. The nursing staff can usually give you an idea of how long the wait will be. If it is too far to go home, you may want to go outside for a walk and some fresh air, or meet a friend or family member at a café for support.

After surgery – When the person returns home, you can help with physical tasks (such as washing, dressing and meal preparation), and provide emotional support. Listen to the person's concerns and feelings, and help them manage their expectations about recovery.



Being a carer can bring a sense of satisfaction, but it can also be challenging and stressful. It is important to look after your own physical and emotional wellbeing. For information about services that can help you with the practical and emotional aspects of your caring role, see our *Caring for Someone with Cancer* booklet, call Cancer Council 13 11 20 or contact the Carer Gateway (call 1800 422 737 or visit carergateway.gov.au).

Visiting someone in hospital

Seeing someone after surgery can be frightening and overwhelming. They may have drains, drips or monitors attached, and the anaesthetic may make them groggy, pale, sick and confused. Most people soon return to their usual self. Each hospital has different visiting policies, and there may be restrictions due to COVID-19. As a general guide:

Recovery room – In some situations, such as when a child or a person with special needs has surgery, nursing staff may allow visitors into the recovery room. There are strict rules in these circumstances. Often only one visitor at a time is permitted; you should wash your hands or use hand sanitiser before entering the room; and you may only be allowed to stay for a brief time.

Intensive care or high dependency unit – Visiting hours are more limited and visitors are usually restricted to immediate family members. Staff will need to let you into the unit. You may also have to wear special clothing, and wash your hands when entering and leaving.

Regular hospital ward – If the person is moved to a hospital ward, you will need to follow usual hospital visiting hours and procedures. The medical team can give you updates about the person's recovery and when they are likely to be discharged.

Life after treatment

For most people, the cancer experience doesn't end the day after surgery. Life after cancer treatment can present its own challenges. You may have mixed feelings, and worry that every ache and pain means the cancer is coming back.

Some people say that they feel pressure to return to "normal life". It is important to allow yourself time to adjust to the physical and emotional changes, and establish a new daily routine at your own pace. Your family and friends may also need time to adjust.

Cancer Council 13 11 20 can help you connect with other people who have had surgery for cancer, and provide you with information about the emotional and practical aspects of living well after cancer.

► See our *Living Well After Cancer* booklet.

Dealing with feelings of sadness

If you have continued feelings of sadness, have trouble getting up in the morning or have lost motivation to do things that previously gave you pleasure, you may be experiencing depression. This is quite common among people who have had cancer.

Talk to your GP, because counselling or medication – even for a short time – may help. Some people can

get a Medicare rebate for sessions with a psychologist. Cancer Council may also run a counselling program in your area.

For information about coping with depression and anxiety, call Beyond Blue on 1300 22 4636 or visit beyondblue.org.au. For 24-hour crisis support, call Lifeline 13 11 14 or visit lifeline.org.au.

Support from Cancer Council

Cancer Council offers a range of services to support people affected by cancer, their families and friends. Services may vary by location.

Cancer Council 13 11 20



Our experienced health professionals will answer any questions you have about your situation and link you to local services (see inside back cover).

Information resources



Cancer Council produces booklets and fact sheets on more than 25 types of cancer, as well as treatments, emotional and practical issues, and recovery. Call 13 11 20 or visit your local Cancer Council website.

Legal and financial support



If you need advice on legal or financial issues, we can refer you to qualified professionals. These services are free for people who can't afford to pay. Financial assistance may also be available. Call Cancer Council 13 11 20 to ask if you are eligible.

Practical help



Cancer Council can help you find services or offer guidance to manage the practical impacts of cancer. This may include helping you access accommodation and transport services.

Peer support services



You might find it helpful to share your thoughts and experiences with other people affected by cancer. Cancer Council can link you with individuals or support groups by phone, in person, or online. Call 13 11 20 or visit cancercouncil.com.au/OC.

Useful websites

You can find many useful resources online, but not all websites are reliable. These websites are good sources of support and information.

Australian

Cancer Council Australia	cancer.org.au
Cancer Council Online Community	cancercouncil.com.au/OC
Cancer Council podcasts	cancercouncil.com.au/podcasts
Guides to Best Cancer Care	cancer.org.au/cancercareguides
Australian and New Zealand College of Anaesthetists	anzca.edu.au
Australian Society of Anaesthetists	asa.org.au
Cancer Australia	canceraustralia.gov.au
Carer Gateway	carergateway.gov.au
Choosing Wisely Australia	choosingwisely.org.au
Department of Health and Aged Care	health.gov.au
Healthdirect Australia	healthdirect.gov.au
Royal Australasian College of Surgeons	surgeons.org
Services Australia (including Centrelink and Medicare)	servicesaustralia.gov.au

International

American Cancer Society	cancer.org
Cancer Research UK	cancerresearchuk.org
Encyclopedia of Surgery (US)	surgeryencyclopedia.com
Macmillan Cancer Support (UK)	macmillan.org.uk

Question checklist

Asking your doctor questions will help you make an informed choice. You may want to include some of the questions below in your own list.

Information about the surgeon

- Do you work in a multidisciplinary team (MDT)?
 - Do you specialise in this type of surgery? How were you trained?
 - How many times have you done this surgery?
 - Which hospitals do you operate in?
-

Treatment choice

- Why do I need surgery?
 - Are there other treatment choices for me?
 - What are the advantages and disadvantages of surgery for me?
 - How successful is this type of surgery for this type of cancer?
 - Are there clinical practice guidelines on how to treat this type of cancer?
 - How much does the surgery cost? Are there any out-of-pocket expenses not covered by Medicare or my private health cover?
 - Are there extra costs I should know about, such as costs related to anaesthesia?
 - Can the cost be reduced if I can't afford it?
 - Can I get a second opinion?
 - How long do I have to make a decision?
 - Will I need other treatment before or after surgery?
 - Are there any clinical trials or research studies I could join?
-

The surgery

- How can I prepare myself for surgery and improve my recovery?
 - What type of surgery will I have (e.g. open surgery or keyhole surgery)?
 - What exactly will you do during the operation? Will you remove part of the tumour or all of the cancer?
 - How long will the surgery take?
 - Could your plans for the surgery change? Why?
 - What anaesthetic will I receive? How will it be given?
 - When will I meet the anaesthetist?
-

continued on next page

The surgery (*continued*)

- What are the potential risks and complications of the surgery?
- Will I need a blood transfusion?
- Where will I have the surgery?
- How will we know if the surgery was successful?

Side effects and recovery

- What are the side effects of the surgery (e.g. will it affect my mobility, diet, ability to work, fertility, sex life)? What are the long-term impacts?
- Will I have tubes and drains?
- Will I have a lot of pain? What will be done about this?
- How long will I be in hospital? How long will it take to recover?
- Will I need rehabilitation? Will I have it as an inpatient or outpatient?
- When I go home, will I be given written information about my after-care?
- What kind of support is available to people who have this type of surgery?
- Are there any complementary therapies that might help me?

Before leaving hospital

- Will the stitches need to be taken out or will they dissolve?
- Will the wound dressing need to be changed? Who will do this?
- Can I eat my usual diet?
- What problems should I look out for when I go home?
- Who should I call if I have a problem?
- How often will I need check-ups?
- Can I have a shower or bath?
- When do I need to see my surgeon for a follow-up?
- When can I go back to work? How soon can I do my usual activities (e.g. exercise, housework, driving)?
- What medicines do I need to take?

“I kept a notebook to record any questions I had so that I wouldn’t forget anything I wanted to tell or ask at each appointment.” ANN

Glossary

abdomen

The part of the body between the chest and hips, which contains the stomach, spleen, pancreas, liver, gall bladder, bowel, kidneys and uterus. Also known as the belly.

anaesthetic

A drug that stops a person feeling pain during a medical procedure. Local and regional anaesthetics numb part of the body; a general anaesthetic causes a temporary loss of consciousness.

biopsy

The removal of a sample of tissue from the body for examination under a microscope to help diagnose a disease.

blood transfusion

The process of transferring donated or stored blood and blood products into the bloodstream.

catheter

A hollow, flexible tube through which fluids can be passed into the body or drained from it.

complications

Unexpected problems that affect the patient during or after surgery. Most are minor, but some can be serious.

CT scan

Computerised tomography scan. This scan uses x-rays to create cross-sectional pictures of the body.

debulking

Surgery to remove as much of a tumour as possible. This makes it easier to treat the cancer that is left and helps to increase the effectiveness of other treatments, such as radiation therapy or chemotherapy.

deep vein thrombosis (DVT)

A blood clot that forms in the deep veins of the leg or pelvis, often caused by immobility after surgery or long-distance travel. These blood clots can travel to the lungs and block an artery (pulmonary embolism).

diagnosis

Identifying and naming a person's disease.

elective surgery

Surgery that is necessary to treat a diagnosed illness, but is safe to be delayed.

endoscopy

An examination of the inside of the body using a thin, flexible tube with a light and camera on the end.

excision

A surgical procedure to remove diseased tissue. The surgeon may cut out the cancer and some tissue around it.

genetic counsellor

A health professional who has been trained in genetics and counselling.

incision

A cut made into the body during surgery.

incontinence

The accidental or involuntary loss of urine (wee or pee) or faeces (poo).

informed consent

Receiving and understanding all relevant information, such as potential risks, before agreeing to medical treatment.

inpatient

A person who stays in hospital while having treatment.

intravenous (IV)

Injected into a vein.

keyhole surgery

Surgery done through small cuts in the body using a thin viewing instrument with a light and camera. Also called laparoscopy or minimally invasive surgery.

laparoscopy

See keyhole surgery.

laparotomy

A type of open surgery in which a long cut is made in the abdomen to examine and remove internal organs.

lymphatic system

A network of vessels, nodes and organs that removes excess fluid from tissues, absorbs fatty acids, transports fat and produces immune cells. Includes the bone marrow, spleen, thymus and lymph nodes.

lymph nodes

Small, bean-shaped structures found in groups throughout the body. They help protect the body against disease and infection. Also called lymph glands.

lymphoedema

Swelling caused by a build-up of lymph fluid. This happens when lymph vessels or nodes can't drain properly because they have been damaged or removed.

margin

An edge of tissue removed during surgery. Clear or negative margin means no cancer cells were found on the edge of the removed tissue. Positive margin means cancer cells were found on the edge of the removed tissue and further surgery is usually needed.

MRI scan

Magnetic resonance imaging scan. A scan that uses magnetic fields and radio waves to take detailed, cross-sectional pictures of the body.

multidisciplinary team (MDT)

A team of health professionals who work together to discuss a patient's physical and emotional needs and decide on which treatment to recommend.

nil by mouth

When you are unable to have food or drink for a period of time before or after surgery.

open surgery

A surgical method that involves one large cut (incision) in the body to view and access the organs.

outpatient

A person who visits hospital for medical care without being admitted into hospital.

palliative treatment

Medical treatment for people with advanced cancer to help them manage pain and other physical and emotional symptoms. Treatment may include surgery, chemotherapy or other therapies.

pathologist

A specialist doctor who interprets the results of tests (such as blood tests and biopsies).

pathology report

A document that provides information about the cancerous tissue, including its size and location, hormonal status, how far it has spread, surgical margins and how fast it is growing.

PET-CT scan

Positron emission tomography scan combined with a CT scan. A PET scan uses an injection of a small amount of radioactive solution to find cancerous areas.

prehabilitation

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

recovery room

A hospital room for the care of patients immediately after surgery.

registrar

A hospital doctor who is training to be a specialist.

rehabilitation

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

resection

Surgical removal of part or all of a diseased organ or tumour.

resident medical officer

A hospital doctor who has not undertaken specialist training.

skin graft

A procedure where a layer of skin is removed from one part of the body and fixed over the wound left by the removal of a cancer or other lesion from the skin.

staging

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

stoma

A surgically created opening to the outside of the body to allow urine or faeces to leave the body.

stomal therapy nurse

A registered nurse who specialises in caring for people with stomas.

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 operated on.

thoracoscopy

A procedure in which a thin tube with a tiny video camera is inserted into the chest through a small cut. Also called video-assisted thoracic surgery (VATS).

thoracotomy

Surgery in which a long cut is made in the chest to examine, biopsy or remove a tumour.

tumour

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

ultrasound

A scan that uses soundwaves to create a picture of part of the body.

vital signs

Measurements of the body's temperature, blood pressure, heart rate, breathing rate and blood oxygen levels. These indicate the state of essential body functions.

x-ray

A test that uses a low dose of radiation to create images of areas inside the body. It is used to diagnose different conditions.

Can't find a word here?

For more cancer-related words, visit:

- cancercouncil.com.au/words
- cancervic.org.au/glossary



How you can help

At Cancer Council, we're dedicated to improving cancer control. As well as funding millions of dollars in cancer research every year, we advocate for the highest quality care for cancer patients and their families. We create cancer-smart communities by educating people about cancer, its prevention and early detection. We offer a range of practical and support services for people and families affected by cancer. All these programs would not be possible without community support, great and small.

Join a Cancer Council event: Join one of our community fundraising events such as Daffodil Day, Australia's Biggest Morning Tea, Relay For Life, Girls' Night In and other Pink events, or hold your own fundraiser or become a volunteer.

Make a donation: Any gift, large or small, makes a meaningful contribution to our work in supporting people with cancer and their families now and in the future.

Buy Cancer Council sun protection products: Every purchase helps you prevent cancer and contribute financially to our goals.

Help us speak out for a cancer-smart community: We are a leading advocate for cancer prevention and improved patient services. You can help us speak out on important cancer issues and help us improve cancer awareness by living and promoting a cancer-smart lifestyle.

Join a research study: Cancer Council funds and carries out research investigating the causes, management, outcomes and impacts of different cancers. You may be able to join a study.

To find out more about how you, your family and friends can help, please call your local Cancer Council.



Cancer Council

13 11 20

Being diagnosed with cancer can be overwhelming. At Cancer Council, we understand it isn't just about the treatment or prognosis. Having cancer affects the way you live, work and think. It can also affect our most important relationships.

When disruption and change happen in our lives, talking to someone who understands can make a big difference. Cancer Council has been providing information and support to people affected by cancer for over 50 years.

Calling 13 11 20 gives you access to trustworthy information that is relevant to you. Our experienced health professionals are available to answer your questions and link you to services in your area, such as transport, accommodation and home help. We can also help with other matters, such as legal and financial advice.

If you are finding it hard to navigate through the health care system, or just need someone to listen to your immediate concerns, call 13 11 20 and find out how we can support you, your family and friends.



If you need information in a language other than English, an interpreting service is available. Call 131 450.



If you are deaf, or have a hearing or speech impairment, you can contact us through the National Relay Service. communications.gov.au/accesshub/nrs

*Cancer Council services and programs vary in each area.
13 11 20 is charged at a local call rate throughout Australia (except from mobiles).*

For information & support
on cancer-related issues,
call **Cancer Council 13 11 20**

Visit your local Cancer Council website

Cancer Council ACT
actcancer.org

Cancer Council Queensland
cancerqld.org.au

Cancer Council Victoria
cancervic.org.au

Cancer Council NSW
cancercouncil.com.au

Cancer Council SA
cancersa.org.au

Cancer Council WA
cancerwa.asn.au

Cancer Council NT
cancer.org.au/nt

Cancer Council Tasmania
cancer.org.au/tas

Cancer Council Australia
cancer.org.au

*This booklet is funded through the generosity of the people of Australia.
To support Cancer Council, call your local Cancer Council or visit your local website.*

