Understanding Surgery
A guide for people with cancer, their families and friends

For information & support, call 131120
This booklet has been prepared to help you understand more about surgery, one of the main treatments for cancer. Surgery 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, we hope this information will answer some of your questions and help you think about what to ask your treatment team (see page 59 for a question checklist). For information about surgery for specific cancer types, see our booklet on 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, 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).
# The day of the surgery
- Admission and preparation .................................................. 29
- Anaesthetic .............................................................................. 30
- The operating theatre .............................................................. 31
- Unknown factors ........................................................................ 32
- Surgical wound .......................................................................... 34
- Complications during surgery .................................................. 35

# Recovery after surgery .......................................................... 37
- Hospital recovery room ............................................................ 37
- Hospital ward ........................................................................... 39
- Complications after surgery ...................................................... 42
- Leaving hospital (discharge) ....................................................... 43
- Taking care of yourself at home ................................................ 45
- Follow-up appointments ........................................................... 48
- Rehabilitation ........................................................................... 49

# Looking after yourself ............................................................ 51

# Caring for someone having surgery ....................................... 53
- Being a support person ............................................................ 53
- Visiting someone in hospital ..................................................... 54

# Life after treatment ............................................................... 56
# Question checklist .................................................................... 59
# Glossary .................................................................................. 61
# How you can help ................................................................... 64
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. 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.

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 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 is cancer treated?

Because an individual’s cancer cells are unique, different people may have different treatments, even if their cancer type is the same. 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 age, fitness and overall health
- what treatments are currently available.

### Types of cancer treatments

<table>
<thead>
<tr>
<th>surgery</th>
<th>An operation to remove cancer and/or to repair or reconstruct a part of the body affected by cancer.</th>
</tr>
</thead>
<tbody>
<tr>
<td>drug therapies</td>
<td>Drugs that are delivered into the bloodstream so the treatment can travel throughout the body. This is called systemic treatment, and includes:</td>
</tr>
<tr>
<td></td>
<td>• chemotherapy – the use of drugs to kill or slow the growth of cancer cells</td>
</tr>
<tr>
<td></td>
<td>• hormone therapy – treatment that blocks the effects of the body’s natural hormones on some types of cancers</td>
</tr>
<tr>
<td></td>
<td>• immunotherapy – treatment that uses the body’s own immune system to fight cancer</td>
</tr>
<tr>
<td></td>
<td>• targeted therapy – drugs that attack specific molecules within cells that help cancer grow.</td>
</tr>
<tr>
<td>radiation therapy</td>
<td>The use of targeted radiation to kill or damage cancer cells. The radiation is usually in the form of focused x-ray beams. It generally affects only the part of the body where the radiation is targeted.</td>
</tr>
</tbody>
</table>

These treatments may be used on their own or in combination. For example, you may have surgery followed by chemotherapy.
Q: **What is surgery?**
A: Surgery is a procedure to remove cancer from the body or repair a part of the body affected by cancer. It’s sometimes called an operation or surgical resection, and is performed by a surgeon.

Q: **When is surgery used for cancer?**
A: Many cancers that are found early can be removed with surgery, and this may be the only treatment needed. However, not all cancers can be removed surgically. Doctors often follow medical standards called clinical practice guidelines, which outline the best available treatments for particular cancers. For some cancers, surgery is recommended as the most effective approach, either on its own or in combination with other treatments (see page 13). In other cancers, non-surgical treatments have been proven more effective. Generally, surgery is not recommended if you are unwell or if the cancer has spread to many places in the body.

Q: **How is surgery used for cancer?**
A: There are several reasons why surgery is used for cancer:

**Prevention** – Preventive or prophylactic surgery removes healthy tissue that doctors believe will probably become cancerous. It will reduce a person’s risk of developing cancer. For example, a woman with a strong family history of ovarian cancer, but no actual signs of cancer, may have surgery to remove her healthy ovaries. The decision to have preventive surgery should be made after talking to qualified health professionals, including a genetic counsellor.
**Diagnosis** – 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 (see pages 18–19).

**Staging** – Surgery can help the doctor determine the size of the tumour and whether the cancer has spread to other tissues or lymph nodes. This is called staging. The results of the surgery, imaging scans and other tests will help the doctor work out the stage and decide on appropriate treatment. See page 19 for more information.

**Primary treatment** – Small, early-stage cancers that haven’t spread are often successfully treated with surgery. If the cancer is confined to one part of the body, the surgeon will remove the cancerous tissue or a whole organ.

**Debulking (cytoreductive)** – If it is not possible to remove all the cancer without damaging nearby healthy organs, debulking surgery is done. The aim is to remove as much of the tumour as possible to help make other cancer treatments more effective.

**Reconstructing a part of the body** – Reconstructive or plastic surgery can be done for many different reasons, such as to take control of your appearance, restore self-esteem, and help improve mobility or function. Examples include breast reconstruction after a mastectomy or a skin graft after surgery for skin cancer.

**Supporting other treatments** – Supportive surgery is done to aid another cancer treatment. For example, you may have day
surgery to insert a tube (catheter) into a large vein in your chest to make it easier to receive chemotherapy.

**Palliative treatment** – Surgery can be used to improve quality of life by easing cancer symptoms and treatment side effects. For example, surgery may be done if the cancer grows very large and blocks the bowel (obstruction). Other surgical procedures can help to reduce pain.

**Q: How is surgery done?**

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

There are many different approaches, and not all involve making cuts. Each method has advantages in particular situations – your doctor will advise which approach is most suitable for you.

**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 from small to quite large. An open approach might also be used for staging surgery (see page 19).

Open surgery is a well-established technique and widely available. It is often used for cancers in the abdomen 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 one large cut used in open surgery.

The surgeon will insert a tiny 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 for guidance.

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. Some people have keyhole surgery followed by open surgery.

**Robotic surgery** – This is a type of keyhole surgery where the surgical instruments are moved by robotic arms controlled by the surgeon, who sits at a console next to the operating table.

**Laser surgery** – A laser can be used to remove or destroy cancerous tissue. In some cases, laser surgery can be less invasive than other types of surgery.

**Cryotherapy** – Also called cryosurgery, this is often used to treat skin cancers. Liquid nitrogen is sprayed onto the skin to freeze and kill the cancerous tissue.
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 at home after you are discharged.

It may be possible to have surgery as an outpatient (day surgery). This means you can go home soon after the surgery – you don’t have to stay overnight in hospital, provided there are no complications. Your doctor will tell you whether you will have surgery as an inpatient or outpatient.

Q: What questions should I ask?
A: It’s important to ask questions about the type of surgery recommended to you, including the risks, possible complications and how long it will take to recover. Also remember to ask your surgeon about their training and experience. See pages 59–60 for a list of suggested questions.
Q: What is a surgical margin?

A: The surrounding tissue that is removed with the cancer is known as the surgical margin. A pathologist checks the margin under a microscope to make sure the cancer has been completely removed. If there aren’t any cancer cells in the 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 require further treatment.

Q: Can surgery spread the cancer?

A: In some rare cases it is possible for surgery to spread the cancer. In this situation, surgeons take precautions and will still operate if the benefits of the surgery outweigh the risk of not having it.

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.

Some people think cancer can spread if it’s exposed to air during surgery. This is incorrect. One reason people may believe this myth
is if the surgeon finds more cancer than expected. In this case, the diagnostic tests and scans may not have shown all of the cancer, but the cancer was already there – surgery didn’t spread it.

If you are concerned about the cancer spreading during surgery, talk to your surgeon.

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

### Timing of other cancer treatments

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>neoadjuvant</strong></td>
<td>Drug therapies or radiation therapy may be given before surgery to try to shrink the tumour and make it easier to remove.</td>
</tr>
<tr>
<td><strong>simultaneous</strong></td>
<td>Two types of treatment are sometimes given at the same time – for example, radiation therapy or heated chemotherapy may be given during surgery.</td>
</tr>
<tr>
<td><strong>adjuvant</strong></td>
<td>Drug therapies or radiation therapy may be given once you have recovered from surgery, often when:</td>
</tr>
<tr>
<td></td>
<td>• the tumour hasn’t been completely removed</td>
</tr>
<tr>
<td></td>
<td>• cancer has spread to other parts of the body, such as the lymph nodes</td>
</tr>
<tr>
<td></td>
<td>• there is a chance there may be hidden cancer cells</td>
</tr>
<tr>
<td></td>
<td>• there is a significant risk that the cancer could come back.</td>
</tr>
</tbody>
</table>
Q: Which health professionals will I see?
A: Before, during and after surgery you will be cared for by a range of health professionals who specialise in different aspects of your care. Your treatment options may be discussed with other health professionals at what is known as a multidisciplinary team (MDT) meeting. This means health professionals work together to plan treatment and manage care.

<table>
<thead>
<tr>
<th>Health professionals you may see</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP</td>
</tr>
<tr>
<td>surgeon*</td>
</tr>
<tr>
<td>anaesthetist*</td>
</tr>
<tr>
<td>operating room staff</td>
</tr>
<tr>
<td>junior medical staff</td>
</tr>
<tr>
<td>cancer care coordinator</td>
</tr>
<tr>
<td>nurse</td>
</tr>
</tbody>
</table>
It is important to maintain or develop a relationship with a general practitioner (GP). This health professional will be involved in your ongoing care, particularly once the cancer treatment finishes. For example, GPs can help with pain control, prescriptions for medicines, or follow-up blood tests.

› Read our booklet about the type of cancer you have for more detail about the people you may see.

<table>
<thead>
<tr>
<th>Health professional</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>pathologist</strong>*</td>
<td>examines cells and tissue samples to determine the type and extent of the cancer</td>
</tr>
<tr>
<td><strong>dietitian</strong></td>
<td>recommends an eating plan to follow while you’re in treatment and recovery</td>
</tr>
<tr>
<td><em><em>psychiatrist</em>, psychologist, counsellor</em>*</td>
<td>help you manage your emotional response to diagnosis and treatment</td>
</tr>
<tr>
<td><strong>physiotherapist</strong></td>
<td>helps with restoring movement and mobility, and preventing further complications</td>
</tr>
<tr>
<td><strong>occupational therapist</strong></td>
<td>assists in adapting your living and working environment to help you resume usual activities after treatment</td>
</tr>
<tr>
<td><strong>social worker</strong></td>
<td>links you to support services and helps you with emotional, practical and financial issues</td>
</tr>
<tr>
<td><strong>exercise physiologist</strong></td>
<td>prescribes exercise to help you improve your overall health, fitness, strength and energy levels</td>
</tr>
</tbody>
</table>

*Specialist doctor
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 – often it won’t 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 14) 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 tells you that you have cancer, you may not remember everything you are told. Taking notes or recording the discussion can help. 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). You could also talk to a cancer care coordinator or oncology nurse specialist.

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 and listen to our “Making Treatment Decisions” podcast.

---

**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](http://australiancancertrials.gov.au).

› See our *Understanding Clinical Trials and Research* booklet.
Common types of surgery

There are hundreds of different types of surgery used to diagnose, stage and treat cancer. Some of the more common types are outlined in this chapter – some are minor and are more commonly called procedures, while others are much bigger operations.

Surgery to diagnose and stage cancer

For most cancers you will need further tests to make a diagnosis. These tests may involve a surgical procedure.

Biopsy

A biopsy is a procedure to remove abnormal tissue or a sample of cells from the affected area. A biopsy may be done under a local or general anaesthetic. It is sometimes done in the doctor’s rooms, but it may also be done at a radiology practice, in hospital, or as day surgery.

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.

A biopsy is often done using an ultrasound or CT scan to guide the needle to the correct place. Common types of biopsy used to diagnose and stage cancer include:

- **fine needle aspiration** – a thin needle is used to remove a sample of fluid and tissue from the tumour
- **punch biopsy** – a special tool is used to remove a circle of skin
- **core biopsy** – a hollow needle is inserted through the skin to remove a thin core of tissue
- **incisional biopsy** – part of the tumour is cut out
• **excisional biopsy** – the whole tumour is cut out, along with a narrow margin of healthy tissue

• **surgical biopsy** – the surgeon cuts into the body to remove all or part of the tumour; various surgical tools can be used depending on the part of the body affected

• **endoscopic biopsy/endoscopy** – a long, thin, flexible tube with a light and a camera is inserted into the body through a small cut or a natural opening such as the mouth. The doctor views images of the body on a TV or computer screen and takes a tissue sample. There are many types of endoscopy named after the part of the body affected, e.g. colonoscopy (colon), hysteroscopy (uterus), gastroscopy (stomach).

**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. Some cancers are staged surgically. This means that the surgery to remove the cancer will help the doctor work out how far the tumour has spread throughout the body. All tissue and fluids removed during staging surgery are examined for cancer cells by a pathologist.

Knowing the stage of a cancer helps the doctor recommend the best treatment for you. Some cancers are also given a grade, which describes how abnormal the cancer cells are and how fast they are growing.

Sometimes diagnostic and staging surgery removes all of the cancer, and you don’t need further surgery or treatment. For specific information about staging a certain type of cancer, talk to your medical team or see our booklet on the type of cancer you have.
Surgery to treat cancer

The type of surgery used to treat cancer depends on the type of cancer, its location and stage, and your general health. See pages 7–9 for information about the ways surgery is used to treat cancer.

Some of the terms commonly used to describe surgery include:

- **elective surgery** – surgery that is necessary to treat a diagnosed illness, but is safe to be delayed; patients are placed on an elective surgery waiting list; most cancer surgery is elective surgery
- **emergency surgery** – life-saving surgery that has to happen as soon as possible to treat an acute illness, e.g. surgery to remove a tumour that is blocking the bowel
- **marginal excision** – a surgical procedure to remove cancerous tissue with a close or no margin
- **wide local excision** – a surgical procedure to remove cancerous tissue and some healthy tissue around it
- **radical resection** – a type of extensive 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 a part of the body
- **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 treatments such as drug therapies or radiation therapy may be recommended.

For information about surgery for specific cancer types, see our booklet about the type of cancer you have or call 13 11 20.
Although each person’s situation is different, this chapter provides a general overview of what may happen before surgery. Procedures vary between hospitals and according to whether you have surgery as an inpatient or outpatient.

**Preoperative assessment**
Your doctor will ask you to complete a questionnaire about your medical history, including any allergies and any medicines you take.

Depending on the surgery you are having and your general health, you may have to attend a pre-admission clinic a few weeks before the surgery. This is so your medical team can 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.

Tell the doctor if you are taking 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.

**Quitting smoking**
If you are a smoker, you will be encouraged to stop smoking before surgery. Continuing to smoke can increase the risk of complications and delay your healing and recovery time. Quitting smoking can be difficult – for support, talk to your doctor, call the Quitline on 13 7848 or visit [quitnow.gov.au](http://quitnow.gov.au).
The health professionals you see at the clinic will vary depending on the type of cancer and surgery, 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.

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 scans. You probably won’t need to have all of these tests and scans.

You will be told whether you will have surgery as an inpatient or outpatient, what to take to hospital and other useful information (see Preparing for surgery, pages 26–27). Your legs may be measured for stockings to help reduce the chance of developing a blood clot in your veins (deep vein thrombosis or DVT). You might wear these during surgery and for a short time afterwards.

You will be given referrals to any support services you need after surgery, such as a dietitian or social worker.

If you are having minor surgery, you may not need to attend a pre-admission clinic. Your doctor will discuss the surgery and how to prepare at one of your usual appointments, and you will usually receive admission instructions from the hospital.
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).

Surgery may cause permanent physical changes such as scarring or loss of a body part. It may also affect your fertility (your ability to conceive a child). If you are 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. Sometimes there are few options other than surgery. If you are unsure, ask for a second opinion from another specialist (see pages 16–17).

**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. Capacity means they can understand and remember the information about the proposed choices, make decisions based on this information, and communicate their 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 to treatment.

Informed financial consent is an important part of decision-making if you are having treatment in the private sector. Your doctors must talk to you about likely out-of-pocket costs before treatment starts. If you are concerned about the cost of surgery, you may want to get a second opinion from another specialist or seek treatment as a public patient.

› See our *Cancer Care and Your Rights* booklet.
Frank’s story

When my mum was diagnosed with bowel cancer, the medical team recommended she have a right hemicolectomy to remove the affected parts of her bowel.

Before surgery, we went to the hospital to see the surgeon for the pre-assessment appointment. My wife and I went along to provide support and help Mum understand the surgeon’s instructions.

The surgeon talked to the three of us about the potential risks and benefits of the hemicolectomy.

Mum’s elderly and she had heart problems a few years ago, so she takes low-dose aspirin daily. The doctor explained the risks of bleeding during the operation and told Mum to stop taking aspirin for a week before the surgery.

Even though it was stressful to “download” all the medical information and instructions, the pre-assessment actually eased our minds.

I walked away knowing that although it’s a major operation, very few people die. I also knew the practical things we had to do to help Mum prepare.

On the day of the surgery, we all felt nervous but ready. Mum was in theatre for a while, but she got through the operation without any problems. Over time and with the dietitian’s help, she resumed eating.

When I look back, I think Mum was calmer than us. It can be really nerve-racking and stressful to be the support person for someone having surgery.

We found it helpful to ask the medical team questions about what was happening so we felt in control and knew how to look after her.
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. Let your treatment team know if you have any concerns about what you are asked to do. The advice you receive will cover a range of issues.

**Bathing and shaving**

You will be told when to shower or bath. 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 shaved, you may be asked to do it yourself before you go to hospital, or it will 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 or perfume.

**Eating and drinking**

Most people are told not to eat or drink for 6–12 hours before surgery. This may be called fasting or nil by mouth. It ensures that your stomach is empty before surgery, which reduces the risk of some complications. In some cases, you can continue drinking clear fluids until two hours before surgery – your surgeon, anaesthetist or a hospital nurse will advise you about this. You should not drink alcohol or smoke for at least 24 hours before the operation, or chew gum while you are fasting.

**Medicines**

Your doctor will tell you whether to keep taking any medicine you are on or to stop taking it in the days or weeks before surgery. If you have to take medicine while fasting, swallow it with a small mouthful of water. If you are on blood thinners, including minor ones like aspirin, non-steroidal anti-inflammatory drugs or clopidogrel, talk to your surgeon about whether you need to stop taking them.
Support person
You may want to ask a friend or family member to stay in the waiting room while you are in surgery. If you are having day surgery, you should arrange for someone to take you home when you are discharged. 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.

What to take with you
Your treatment team will let you know what personal items to take to hospital 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 and nightclothes.

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 tablet device.

You will be asked to remove nail polish, including clear polish, before surgery. Checking your fingernails during surgery is one way the anaesthetist can check the level of oxygen in your blood.
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.
- If you smoke, you’ll be encouraged to stop before surgery.
- You may be measured for stockings to help prevent blood clots.
- Tell the doctor if you are taking any over-the-counter or herbal medicines, as these could affect the surgery and your recovery.
- The doctor will explain whether you will have surgery as an inpatient or outpatient.
- You will receive referrals to any support services that you may need after surgery, such as a dietitian or social worker.

Informed consent
- There are risks associated with any surgery. Your doctor 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 any out-of-pocket costs if you are having treatment privately.

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, transport home from the hospital, and what to take with you.
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**

The hospital will give you a time to arrive, called the admission time. Arriving earlier doesn’t mean you’ll be admitted or have surgery sooner. 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 – the receptionists and nurses will keep you informed.

Before you go to the operating theatre, a nurse will:
- review your medical history and whether you have any allergies
- place an identification band around your wrist or ankle
- check your blood pressure, pulse and weight
- ask when and what you last ate and drank.

You will change into a surgical gown and put your personal possessions in a bag for storage or to give to your support person. If the surgery is to a part of your body with hair, it will be shaved unless you have already done it yourself. Some people are given a sedative (premedication or premed) as an injection or tablet to relax them.

Let the nurse know if you think you have a cold or the flu, so they can assess your fitness for surgery.
Anaesthetic
You will be given drugs (anaesthetic or anaesthesia) to temporarily block any pain or discomfort during the surgery. An anaesthetist will give you these drugs and check you throughout the operation.

Before you receive anaesthetic, the anaesthetist will talk to you about your medical history. They will also check the last time you ate or drank, and whether you have any allergies. It’s important to tell the anaesthetist if you have had a previous reaction to an anaesthetic.

There are different types of anaesthetic:

**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 surface of the part of the body being operated on. It is usually done via 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.

The doctor used local anaesthetic on the skin on my arm, then cut off the mole. I saw what was happening, but I didn’t feel any pain. The numbness wore off in a few hours. Craig

Cancer Council
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. A local anaesthetic cream is usually applied to the skin first to minimise the pain from the needle. You may be given a light sedative to help you relax, or stronger medicine to put you to sleep.

General anaesthetic – This is usually an injection of drugs into a vein that puts you into an unconscious state. A general anaesthetic can also be given as gas through a mask that the anaesthetist places over your face. You may experience some side effects, such as nausea, when you wake up from general anaesthetic. Most of these effects are temporary and are easily managed by your medical team – see page 41 for information about side effects.

Risks of anaesthetic
It’s uncommon to have an allergic reaction to anaesthetic. Your medical team will review your medical records and general health to work out your risk of having a reaction. Anaesthetists are trained to recognise the harmful effects of anaesthetic. Your anaesthetist will monitor you throughout the surgery and give you medicine to manage any complications.

The operating theatre
You will lie on a bed that is wheeled into the operating theatre, which is a purpose-designed, very clean room where the surgery occurs. The surgical team will wear caps, masks and gowns to help prevent infection.
If you are having a general anaesthetic, the anaesthetist will put a small tube (cannula) into a vein in the back of your hand or arm. The anaesthetic 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. Some people say that having a general anaesthetic feels like a deep, dreamless sleep.

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 anaesthetic will begin to wear off slowly, or you will be given more medicine to reverse the effects. You’ll be taken to the recovery room (see page 37), and your vital signs will be checked 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 during your preoperative assessment appointment (see pages 21–22).

**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 arise.
Adding another surgeon – Another surgeon may be called into 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 doctor to tell you exactly what will be removed during the surgery, as scans don’t always detect all of the cancer. If the cancer is found in places not shown on scans, your surgeon may remove extra tissue to cut out as much cancer as possible.

Creating a stoma – The medical team will talk to you before surgery if there is a possibility of creating an artificial opening in the body (stoma). An example of a stoma is a colostomy, when part of the large bowel is brought out through a surgically created opening in the abdomen, and a disposable bag is attached to collect waste matter from the body. 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 transferred into your body 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. If you’re concerned about receiving someone else’s blood products, you might be able to bank some of your own blood before the surgery so it can be transfused back to you. However, this procedure is rarely used. Talk to your doctor if you are worried about needing a blood transfusion.
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*, pages 48–49)
- **staples** – small metal clips that will be removed by your doctor once the wound has healed
- **glue** – clear liquid or paste 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.

The wound will usually be covered with a surgical dressing to keep it dry and clean. 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.

If you have day surgery, you may need to visit your GP to have the wound checked before seeing your surgeon a few weeks later. You may be given instructions on how to care for the wound at home.
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 your actual risks.

Generally, the more complex the surgery is, the higher the chance of problems. Read about possible complications after surgery on pages 42–43.

**Bleeding** – You may lose blood during surgery. Your surgeon will usually manage and control bleeding. Rarely, 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 cause a drop in blood pressure, heart rate and breathing, which is why an anaesthetist observes you during surgery.

Tell your doctor if you’ve had any previous reactions to over-the-counter, prescribed 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). Arriving early doesn’t mean you’ll be admitted or operated on early.
- 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 will be shaved.

Anaesthetic
- Some people are given a sedative as an injection or a tablet to help them relax.
- The anaesthetist will give you drugs (anaesthetic or anaesthesia) to temporarily block any pain or discomfort. A general anaesthetic puts you into an unconscious state; local and regional anaesthetics numb parts of the body.
- It’s rare to have an allergic reaction to anaesthetic. If a reaction occurs, the anaesthetist will give you medicine to manage any complications.

The surgery
- There may be unknown factors about the surgery. For instance, another surgeon may be called in to assist, extra cancerous tissue may be removed, or you may need a blood transfusion. Your doctor 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 general health. It may take a few days or a week to recover from a less complex operation, but it can take a few months to recover from major surgery. It’s important to follow your surgeon’s advice, and try to be patient and allow yourself time to recover.

Hospital recovery room

After surgery you will be moved to a recovery room. This is an area near the operating theatre with 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). You will be moved out of the HDU or ICU as your condition improves. Your doctor will tell you before surgery if it’s likely you will be moved to one of these units.

While the anaesthetic wears off, a 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 41).

You will have several tubes in place (see next page). Once you have woken up, you will be moved from the recovery room:
- If you had day surgery, you will stay in the day surgery unit until the nurses decide that you are well enough to go home.
- If you had surgery as an inpatient and are staying in hospital to recover, you will be moved from the recovery room to a ward.
### Tubes and drains

| **intravenous (IV) drip** | • 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  
| **tube down your throat** | • used to help you breathe during surgery  
| | • usually removed while you are under anaesthetic, but may stay in if you go to HDU or ICU  
| **surgical drain** | • a tube placed in the wound to drain excess fluid into a small bottle or bag  
| | • usually removed after a few days, depending on how much fluid is being collected and the type of operation  
| **urinary catheter** | • a thin tube that drains urine from your bladder into a bag  
| | • usually removed when you start walking after surgery and can get to the toilet, or when your epidural pain relief is finished  
| **nasogastric (NG) tube** | • a thin tube placed through your nose into the stomach  
| | • removes fluid from the stomach until bowel function returns to normal  
| **feeding tube** | • 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 or through an opening on the outside of your abdomen  
| | • usually temporary, but sometimes permanent  

38 Cancer Council
Hospital ward
On the hospital ward, nurses and doctors will check you regularly. They will usually take your blood pressure, pulse and temperature, look at your wound and change the dressing as needed. They will also check your pain is under control and give you pain relief if required (see below). You will be able to have visitors during the hospital’s visiting hours.

Help with your recovery
While you are recovering on the ward, your health care team will check your progress and help you with the following:

Pain control – You may have some pain and discomfort for several days after surgery, but you will be given pain-relieving medicines to manage this. 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 is a pump that is connected to a drip or small plastic tube that allows you to receive a set dose of medicine when you press a button
- slow-acting pills or tablets which you take regularly, and fast-acting pills or tablets you can ask for if in pain.

See our Overcoming Cancer Pain booklet and listen to our “Managing Cancer Pain” podcast.
**Movement and circulation** – When you return from theatre, you may be wearing compression stockings, pneumatic cuffs (see page 43) and/or have an injection of medicine to prevent blood clots forming in the deep veins of your legs or pelvis (deep vein thrombosis or DVT). Some people may have to wear the stockings and have the injections for a couple of weeks after the surgery.

Your health care team will encourage you to walk the day after the surgery. Moving around as much as possible will speed up your recovery and reduce the chance of blood clots or infections. The nurses or a physiotherapist will give you advice about this.

**Eating and drinking** – Most people can start eating and drinking either the same day or the day after surgery. Some people begin by drinking broth and soup before progressing to plain foods and small meals, while others receive nutrition through a drip or a feeding tube for a short while rather than eating (see page 38). 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 and 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.
**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 nauseous or vomit within 24 hours of surgery, but medicines can control these side effects. Sometimes vomiting makes you feel better. Some people continue to feel nauseous for the first few days after they are discharged from hospital, but this will improve.

**Chills and dizziness** – Your body may cool down after surgery, so you could feel cold and shiver. During surgery and recovery, your temperature will be maintained, usually with warm blankets. Some people feel dizzy from the anaesthetic or because they may be dehydrated. You will be monitored to make sure you aren’t getting an infection.

**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 put in your throat to help you breathe during surgery can leave you with a sore throat or a hoarse voice after the tube 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 days, 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 a week or several months after surgery. This is called postoperative cognitive dysfunction. The reasons for this are unknown.
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 your actual risks. 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 urine, and around the catheter site. There are some simple ways to prevent infections. Sometimes the doctor will prescribe medicine before surgery (prophylactic antibiotics). You will be checked for signs of infection, such as tenderness, redness or swelling around the wound or a discharge from the wound, cloudy urine, cough, shortness of breath and chest pain.

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) or further surgery to stop the bleeding.
**Blood clots or DVT** – 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). There are ways to prevent this from occurring, including being given injections of anti-clotting drugs, wearing compression stockings during and after surgery, and using devices called pneumatic cuffs to keep the calf muscles moving during and sometimes after surgery. The nurses will also encourage you to get out of bed and move around as soon as you feel up to it.

**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. Your medical team will observe your breathing during your recovery and provide medicine to control any pain you have.

**Weak muscles (atrophy)** – Although you’ll need to rest after surgery, it’s important to get up and move around. If you aren’t mobile, your muscles may get weak (atrophy). A physiotherapist or nurse may help you to get moving as soon as possible and give you advice about the best exercises to do. Generally, the sooner you are able to get up and move, the better your recovery will be.

**Leaving hospital (discharge)**
If you have day surgery, you will be discharged from hospital 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.

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.

Along with discharge papers, the medical team may give you:
• scan and test results
• instructions about recovering at home (see pages 46–47)
• guidelines about when to contact your doctor (see page 48)
• the date for your follow-up appointment with your surgeon
• a medical certificate for your employer
• insurance forms, bills or receipts
• a list of any medicines/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 request it from the doctor, nurses, receptionist or social worker. You may want to make a copy of your paperwork for your records or to show your GP (although in most cases, a copy will be automatically sent to your GP).

Most people go home after discharge, but some go to an inpatient rehabilitation centre to help them get safely back on their feet before going home. See page 49 for information about rehabilitation.
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.

When you first get home

Keep in mind that recovery will take time, and try not to expect too much of yourself. A community nurse may visit to check on you and change any dressings, or you might see your GP for similar care. Some aspects of your recovery that you will need to keep an eye on in the first few days and weeks are discussed on the next two pages.

Although it’s a good idea to stay active and do gentle exercise while you are recovering, it’s also important to follow your doctor’s advice about restrictions, such as avoiding heavy lifting.

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, and ask family or friends to assist you with household tasks, such as cooking and laundry. If you require home care services, speak to the social worker at your hospital or treatment centre, or call Cancer Council 13 11 20 to find out what is available in your area.
How to plan for recovery at home

After you leave hospital, you will need to continue taking care of yourself at home. Be guided by your doctor, but these general suggestions may help.

<table>
<thead>
<tr>
<th>Pain</th>
<th>Wound care</th>
<th>Eating and drinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>• This is the most common side effect.</td>
<td>• Follow any instructions you are given about how to care for the wound.</td>
<td>• 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.</td>
</tr>
<tr>
<td>• Take pain-relieving medicine as prescribed by your health care team.</td>
<td>• 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.</td>
<td>• Your health care team may instruct you to follow a special diet.</td>
</tr>
<tr>
<td>• If your pain isn’t under control, gets worse, or if the medicine causes side effects, talk to your surgeon, the nurse listed on your discharge paperwork, or your GP.</td>
<td>• If you have dressings, you might need to keep them dry while you shower.</td>
<td>• Eat fibre and drink plenty of water to avoid constipation, and avoid alcohol, especially if you are taking medicine.</td>
</tr>
<tr>
<td>• If the pain gets significantly worse, consider going to the emergency department (see page 48).</td>
<td>• 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.</td>
<td>• Focus on eating a balanced diet (including proteins such as lean meats and poultry, fish, eggs, milk, yoghurt, nuts, seeds and legumes/beans), to help your body recover from surgery.</td>
</tr>
<tr>
<td>› See our Overcoming Cancer Pain booklet.</td>
<td>• Your doctor or nurse will remove any stitches or staples during a follow-up appointment (see page 48).</td>
<td>› See a dietitian for advice on managing special dietary needs or eating problems.</td>
</tr>
<tr>
<td></td>
<td>• Any bruising around the surgical site will fade over a few weeks. To avoid infection, don’t pick at any scabs around the wound.</td>
<td>› See our Nutrition and Cancer booklet.</td>
</tr>
<tr>
<td></td>
<td>• Take the full course of any prescribed antibiotics to completely kill bacteria and prevent infection.</td>
<td></td>
</tr>
</tbody>
</table>
### 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.
- Avoid straining when going to the toilet, as this can cause a small tear around the anus (anal fissure) and/or swollen veins (haemorrhoids or piles).
- If you are taking strong pain medicine, your treatment team will suggest or prescribe a suitable laxative to prevent constipation.
- 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.

### 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).
- The hospital may organise a community nurse to visit you to empty the drain or tube. More commonly your health care team will show you how to keep the tube clean until your next appointment.
- 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.
- The hospital may organise a community nurse to visit you to empty the drain or tube. More commonly your health care team will show you how to keep the tube clean until your next appointment.
- The hospital may organise a community nurse to visit you to empty the drain or tube. More commonly your health care team will show you how to keep the tube clean until your next appointment.
- 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.

### Daily activities
- Check with your surgeon when you can start doing your regular activities and what to avoid – such as heavy lifting, 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. The right exercise for you depends on what you are used to, how you feel, and your doctor’s advice.
- 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 will show you how to use this equipment.
- See our Exercise for People Living with Cancer booklet.
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.

**Rehabilitation**

Rehabilitation (rehab) can help you regain physical strength and get back to your daily activities. It may include physical therapy (e.g. in a pool or gym), or specialist care if you need help with speaking, eating, walking and other tasks. You could have rehab as an inpatient or outpatient.

**Inpatient rehab** – Some people recover in a rehab centre or nursing home before returning home. The length of your stay depends on the speed of your recovery.

**Outpatient rehab** – You can visit a rehab facility as a day patient to receive similar care. Hospital staff or your GP can organise this.
## Key points about recovery

### Recovery in hospital

- After surgery, you will be moved out of the operating theatre to a recovery room. Some people will go into the high dependency unit (HDU) or intensive care unit (ICU).
- You’ll probably receive pain medicine through tubes or an intravenous drip. There might be some drains to remove waste and fluid.
- 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 wear off in time.
- Possible complications after surgery include infection, bleeding, blood clots, lung problems and weak muscles. Steps will be taken to prevent or manage these.

### Recovery at home

- You will be discharged when the medical team thinks you are healthy enough to leave.
- 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.
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.

› 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 practical suggestions about managing changes to your body, such as scars or weight changes, call Cancer Council 13 11 20.

**Lymphoedema** – If the surgeon removes lymph nodes from your armpit, groin or pelvic area, the lymph fluid may no longer drain properly and your arm or leg may swell. This is called lymphoedema. Although lymphoedema may be permanent, it can usually be managed. Early diagnosis and treatment lead to better outcomes.

› See our *Understanding Lymphoedema* fact sheet.

**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.
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.

Contraception and fertility – If you can have sex, you may need to use certain types of contraception to protect your partner or avoid pregnancy 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.

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.

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 with a social worker or Cancer Council whether any financial assistance is available to you.

See our Sexuality, Intimacy and Cancer booklet.

See our Fertility and Cancer booklet.

See our Understanding Complementary Therapies booklet.

See our Cancer and Your Finances and Cancer, Work & You booklets.
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.

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 the surgery, you can stay in the surgical waiting room during the operation. The surgical team may ask that there is only one support person, as there may be limited space in the waiting room. The nursing staff can give you an idea of how long the wait will be. You may want to go outside for a walk and some fresh air, or to meet a friend or family member for support. The staff can take your contact details and call you when the surgery is finished.

For information about carers’ services, see our *Caring for Someone with Cancer* booklet, or contact Carers Australia on 1800 242 636.
Visiting someone in hospital

Seeing your loved one after surgery can be frightening and overwhelming. They may have drains, drips, tubes or monitors attached to them, and the anaesthetic may make them groggy, sick and confused. Most people soon return to their usual self.

Each hospital has different visiting policies. 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.

Consider having one person who rings the hospital for updates, and shares the information with family members and friends.
Caring for someone after surgery

When the person returns home, you can provide valuable physical assistance and emotional support to the person you are caring for:

**Be encouraging**
Help the person manage their expectations about recovery by urging them to take it easy and reinforcing that they don’t have to “bounce back” right away.

**Exercise together**
Do some gentle exercise together, such as walking.

**Help with bathing**
Assist the person to shower, if they need help.

**Be thoughtful**
Listen to their concerns and feelings if they want to talk, but respect their confidentiality and privacy.

**Attend follow-up appointments**
You can take part in the discussion, take notes or simply listen.
Life after treatment

For most people, the cancer experience doesn’t end on the last day of treatment. Life after cancer treatment can present its own challenges. You may have mixed feelings when treatment ends, 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 Cancer Council’s 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, as counselling or medication – even for a short time – may help. Some people can get a Medicare rebate for sessions with a psychologist. Ask your doctor if you are eligible. 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 depending on where you live.

Cancer Council 13 11 20
Trained professionals will answer any questions you have about your situation and link you to services in your area (see inside back cover).

Information resources
Cancer Council produces booklets and fact sheets on over 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 (see back cover).

Practical help
Your local Cancer Council can help you find services or offer guidance to manage the practical impact of a cancer diagnosis. This may include access to transport and accommodation services.

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.

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.

<table>
<thead>
<tr>
<th>Australian</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer Council Australia</td>
<td>cancer.org.au</td>
</tr>
<tr>
<td>Cancer Australia</td>
<td>canceraustralia.gov.au</td>
</tr>
<tr>
<td>Cancer Council Online Community</td>
<td>cancercouncil.com.au/OC</td>
</tr>
<tr>
<td><em>The Thing About Cancer</em> podcast</td>
<td>cancercouncil.com.au/podcasts</td>
</tr>
<tr>
<td>Carer Gateway</td>
<td>carergateway.gov.au</td>
</tr>
<tr>
<td>Carers Australia</td>
<td>carersaustralia.com.au</td>
</tr>
<tr>
<td>Choosing Wisely Australia</td>
<td>choosingwisely.org.au</td>
</tr>
<tr>
<td>Healthdirect Australia</td>
<td>healthdirect.gov.au</td>
</tr>
<tr>
<td>Australian and New Zealand College of Anaesthetists</td>
<td>anzca.edu.au</td>
</tr>
<tr>
<td>Australian Society of Anaesthetists</td>
<td>asa.org.au/patients</td>
</tr>
<tr>
<td>Royal Australasian College of Surgeons</td>
<td>surgeons.org</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>International</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>American Cancer Society</td>
<td>cancer.org</td>
</tr>
<tr>
<td>Cancer Research UK</td>
<td>cancerresearchuk.org</td>
</tr>
<tr>
<td>Macmillan Cancer Support (UK)</td>
<td>macmillan.org.uk</td>
</tr>
<tr>
<td>Encyclopedia of Surgery (US)</td>
<td>surgeryencyclopedia.com</td>
</tr>
</tbody>
</table>
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?
- Do I have a choice of treatments?
- What are the advantages and disadvantages of surgery for me?
- How successful is this type of surgery for this type of cancer?
- Are there any clinical practice guidelines on how to treat this type of cancer?
- How much does the surgery cost? Are there any extra costs I should know about, such as costs related to anaesthesia?
- Can I talk to someone who has had this surgery?
- Can I get a second opinion?
- Will I need other treatment before or after surgery?

**The surgery**
- 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 to operate on me change? Why?
- What anaesthetic will I receive? How will it be given?
- When will I meet the anaesthetist?
- What are the potential risks and complications?
- Will I need a blood transfusion?
- Where will I have the surgery?
Side effects and recovery

- What are the effects of the surgery (e.g. will it affect my mobility, diet, ability to work, fertility, sex life)? What are the long-term effects?
- Will I have tubes and drains?
- Will I have any pain? How will it be managed?
- How long will I be in hospital?
- Will I need rehabilitation? Will I have it as an inpatient or outpatient?
- When I go home, will I be provided with written information about my after-care?
- What kind of support is available to people who have this type of surgery?

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? Can I do my usual activities (e.g. exercise, housework, driving)?
- What medicines do I need to take?

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
abdomen
The part of the body between the chest and hips, which contains the stomach, spleen, pancreas, liver, gall bladder, bowel, bladder and kidneys.

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 or drained from the body.

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 increases the effectiveness of other treatments.

deep vein thrombosis (DVT)
A blood clot in the deep veins of the leg or pelvis, often caused by immobility after surgery or long-distance travel.

endoscopy
A thin, flexible tube with a light and camera (endoscope) is used to examine the inside of the body.

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 or faeces.

informed consent
Receiving and understanding all relevant information, such as potential risks, before agreeing to or declining 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 minimally invasive surgery.
**laparoscopy**
Surgery done through small cuts in the abdomen using a thin viewing instrument called a laparoscope. Also called keyhole surgery or minimally invasive 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 tissues, capillaries, vessels, ducts and lymph nodes 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 don’t drain properly.

**margin**
The 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.

**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 collaborate to discuss a patient’s physical and emotional needs and decide on treatment.

**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 receives medical treatment 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 test results (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 scan**
Positron emission tomography scan. A scan in which a person is injected with a small amount of radioactive glucose solution to find cancerous areas.
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 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 oncologist
A doctor who specialises in the surgical treatment of cancer.

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 and/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 non-invasive 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 type of high-energy radiation that shows solid areas in the body such as bone. 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
• cancersa.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.
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 cancer nurses 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.

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

If you need information in a language other than English, an interpreting service is available. Call 13 14 50.

If you are deaf, or have a hearing or speech impairment, you can contact us through the National Relay Service. www.relayservice.gov.au