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

Cancer Council Helpline
13 11 20
Introduction

This booklet has been prepared to help you understand more about chemotherapy, one of the main treatments for cancer. Chemotherapy is a drug treatment that can be given in different ways and for various reasons. Understanding some facts about chemotherapy may help you to make decisions and cope better.

Chemotherapy can cause different side effects in different people. Some people will have no side effects, while others may have a range. Reactions vary depending on the type of drug used, and they can also vary from one chemotherapy treatment period (cycle) to the next. However, most side effects are temporary, and many can be controlled or reduced.

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 other questions to ask your treatment team.

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. You may also like to pass this booklet to your family and friends for their information.
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What is cancer?

Cancer is a disease of the cells, which are the body’s basic building blocks. Our bodies constantly make new cells to help us grow, to replace worn-out cells and to heal damaged cells after an injury.

Normally cells grow and multiply in an orderly way, but sometimes something goes wrong with this process and cells grow in an uncontrolled way. This uncontrolled growth may result in a lump called a tumour or may develop into abnormal blood cells.

A tumour can be benign (not cancer) or malignant (cancer). A benign tumour does not spread to other parts of the body. However, a malignant tumour is made up of cancer cells, which are able to spread. The cancer that first develops in a tissue or organ is called the primary cancer.

How cancer starts

- Normal cells
- Abnormal cells
- Cancer in-situ
- Angiogenesis

Normal cells

Abnormal cells

Abnormal cells multiply

Malignant or invasive cancer

Cancer Council
When it first develops, a malignant tumour may not have invaded nearby tissue. This is known as a cancer in-situ, carcinoma in-situ or localised cancer. As the tumour grows, it may spread and become what is known as invasive cancer.

Cancer cells can spread to other parts of the body by travelling through the bloodstream or the lymphatic system. They may continue to grow into another tumour at this new site. This is called a secondary cancer or metastasis.

A metastasis keeps the name of the original cancer. For example, breast cancer that has spread to the liver is still called breast cancer, even though the person may be experiencing symptoms relating to cancer in the liver.

**How cancer spreads**

Primary cancer

Local invasion

Angiogenesis – tumours grow their own blood vessels

Lymph vessel

Metastasis – cells invade other parts of the body via blood vessels and lymph vessels
Treatments for cancer
Different treatments for cancer are used alone or in combination. Most cancers are treated with surgery, chemotherapy and/or radiotherapy (x-ray treatment). Other treatments, such as hormone therapy, can also be used for some types of cancer.

Sometimes drugs known as targeted therapies are used instead of or with chemotherapy. See page 22 for more information.

Your treatment depends on several factors, including:
- the type of cancer you have
- where it began
- whether it has spread to other parts of your body
- your general health and your age
- what treatment you want or are prepared to have.

Cancer Council has information about different cancer types and their treatments, as well as a booklet about radiotherapy. Call Cancer Council Helpline 13 11 20 for copies of these resources.

The information in this booklet is for adults having chemotherapy, although some of the information will be relevant for children. Talk to your doctor for specific information about chemotherapy for children.
Q: What is chemotherapy?
A: Chemotherapy is the use of drugs to kill or slow the growth of cancer cells.

Chemotherapy drugs are also called cytotoxics, which means poisonous (toxic) to cells (cyto).

Many of these drugs are obtained from natural sources such as plants, while others are completely developed in the laboratory. There are many types of chemotherapy drugs, which are often used in different combinations and at different strengths.

Q: How does it work?
A: Most chemotherapy drugs enter the bloodstream and travel throughout the body to reach cancer cells in different organs and tissues.

Chemotherapy drugs target and injure rapidly dividing cells, but because it is not cancer specific, both cancer cells and some normal cells are affected. When normal cells are damaged, this can cause side effects (see pages 27–45).

Cancer cells don’t repair easily, so they recover more slowly than normal cells. By the time your next treatment starts, your body’s normal cells have recovered but the cancer cells have not. This means that more cancer cells are destroyed with every treatment.
Q: Why have chemotherapy?
A: Chemotherapy can be used for different reasons:

**Cure** – Some cancers can be cured by chemotherapy on its own or in combination with other treatments, such as surgery or radiotherapy. The aim of the treatment is to destroy all cancer cells.

**To help other treatments** – Chemotherapy can be given either before or after other treatments. Used beforehand, its purpose is to make the cancer smaller so your main treatment is more effective (neo-adjuvant therapy). If chemotherapy is given after your main treatment, its aim is to get rid of any remaining cancer cells (adjuvant therapy).

**To control the cancer** – If the cancer is too large and can’t be cured, chemotherapy can be used to control the cancer’s growth for an extended period of time.

**Symptom relief** – When the cancer can’t be cured but causes symptoms such as pain, treatment – such as chemotherapy – can provide relief. This is called palliative treatment.

Some chemotherapy is delivered directly into a tumour rather than travelling through the bloodstream. Examples are chemotherapy wafers for brain cancer (see page 16) and chemoembolisation for liver cancer (see page 17). Because the chemotherapy is localised, side effects are less common.
Q: How is chemotherapy given?
A: Chemotherapy can be given in a variety of ways. Most people have chemotherapy through a vein (intravenously). It can also be prescribed orally (tablets or capsules), as a cream, or as injections into different parts of the body. For more information, see pages 13–17.

Q: Does chemotherapy hurt?
A: Having intravenous chemotherapy may feel like having your blood taken.

- If you have a temporary tube (cannula) in your hand or arm, only the initial injection should hurt. See page 14 for more information.

- If you have a central venous access device (see page 14), it should not be painful.

Some treatments will cause side effects. However, chemotherapy drugs are constantly being improved to give you the best possible results and to reduce side effects.

If you feel burning, coolness, pain or any other unusual sensation where a cannula or central venous access device enters your body, or if you have tenderness or redness over the injection site, tell your doctor or nurse immediately.
Q: Where will I have treatment?
A: Most people have chemotherapy on an outpatient basis during day visits to a hospital or clinic. Sometimes an overnight hospital stay may be needed.

Some people can have chemotherapy at home if they use a portable pump (see page 15) or have oral chemotherapy.

Q: How long does treatment last?
A: How often and how long you have chemotherapy depends on the type of cancer you have and the drugs that are used. You may have treatment daily, weekly or monthly for several months to a year.

Chemotherapy is commonly given in courses (cycles), with rest periods in between. This allows normal cells to recover and your body to regain its strength. If your body needs more time to recover, your next cycle may be delayed.

Your doctor will discuss your treatment plan with you. Many people have chemotherapy over 6–12 months, but you may have it for a shorter or longer period.

Some people who have chemotherapy to control the cancer or to relieve symptoms (palliative treatment) may have regular treatment for many months or years.
Q: **How much does treatment cost?**

A: Chemotherapy drugs are expensive, but most people only have to pay for a fraction of the cost because many drugs are heavily subsidised by the Pharmaceutical Benefits Scheme (PBS).

There are some drugs that are not covered by the PBS. Check with your nurse, specialist or pharmacist whether you will receive these drugs and if you will have to pay for them. You may also have to pay for medications to relieve the side effects of chemotherapy (such as anti-nausea drugs).

If you have private health insurance and elect to have your treatment privately, you may have to pay for out-of-pocket expenses and contribute to the cost of the drugs. Check with your doctor and your health fund before you start treatment.

Q: **Can chemotherapy be given during pregnancy?**

A: Being diagnosed with cancer during pregnancy is rare – about one in 1000 women are affected.

It is possible for some pregnant women to have chemotherapy. Your medical team will discuss all of the available treatment options with you. Their recommendations will be based on the type of cancer you have, its stage, the other treatment options, and how to avoid harming your developing baby. Sometimes chemotherapy or other treatment can be delayed until after the baby’s birth.
If you have chemotherapy during pregnancy your doctor will probably advise you to stop having it at least 3–4 weeks before your delivery date. This is because chemotherapy increases your risk of bleeding or getting an infection during the birth. Stopping chemotherapy allows your body time to recover from the side effects.

Researchers are currently doing long-term studies on women and children to explore this issue further. It is known that giving chemotherapy in the first trimester (12 weeks) increases the risk of birth defects. However, some studies on children who were exposed to chemotherapy in the womb during the second and third trimesters show that chemotherapy did not affect their development.

Different chemotherapy drugs may affect a developing baby in different ways. For example, chemotherapy may cause premature delivery. Pre-term babies often have other health problems, such as respiratory problems and delayed development.

Your doctor can talk in detail about your specific situation and what is best for your health and your unborn baby.
Intravenous (IV) chemotherapy

Chemotherapy is most commonly given as a liquid drip into your vein (intravenously). It is usually given through a tube – see pages 14–15. Depending on the treatment, this may take about 20 minutes or several hours. Sometimes you may receive chemotherapy over a few days.

Before chemotherapy, you may be given medication so you don’t feel sick (anti-nausea or anti-emetic medication). You may also be encouraged to drink several glasses of water during the treatment.

You will probably be in a room or a lounge area with other patients when you are getting the chemotherapy. You are usually able to walk around the ward during the procedure, for example if you need to go to the toilet.

The nurses will assess you before chemotherapy, and monitor you during and after the treatment. They will let you know when you are able to go home.

Your nurses will also talk to you about managing side effects and tell you about any medication you need to take at home.

Many people feel well enough to travel to and from the hospital or clinic by themselves during chemotherapy. However, it is recommended that a relative or friend comes with you to your first appointment to support you and help you travel home if necessary.
Inserting the tube
To prepare you for IV chemotherapy, you will need to have a tube inserted. There are different types – your doctor will choose the most appropriate one depending on how often you need chemotherapy and how long each treatment will last.

Cannula – A small plastic tube that is temporarily inserted into a vein using a needle. When the needle is removed, the cannula remains in place in your arm or the back of your hand. The cannula can be kept in place for a few days if necessary. If you have day treatment every few weeks, the cannula is usually put in and taken out each time you visit.

Central venous access device (CVAD) – A type of thin plastic tube that remains in your vein throughout the entire course of treatment, often for several weeks to months. Blood for testing can sometimes be taken through this tube. Common types of CVADs include:
- central line – inserted into the chest or neck
- Hickman line – inserted into the chest
- peripherally inserted central catheter – inserted into the arm
- port-a-cath (port) – small device inserted under the skin of the chest or arm.

“My chemo infusions took about eight hours, because I had two drugs and a saline solution in between. It was a long day, sitting in the chair having infusions. I was lucky my partner stayed with me each time.” — Cheryl (ovarian cancer)
All tubes or lines need to be kept clean to prevent infection or blockage. If you have a CVAD, a nurse may visit you at home to clean, dress and flush your line, or you may go to a clinic to have this done. This usually happens on a weekly or monthly basis.

A line doesn’t cause pain or discomfort if it is properly placed and cared for, although you will be aware that it is there. Tell your doctor or nurse immediately if you have pain, discomfort, redness or swelling around the line. This may indicate that you have an infection.

**Intravenous chemotherapy at home**

Some people are able to have their chemotherapy at home using a portable pump. The pump is programmed to give the prescribed amount of chemotherapy over a specified period.

A chemotherapy pump can be carried in a bag or belt holster. It is usually attached to a central line. The nurses at the clinic or hospital will show you how to care for the pump.
Other ways of having chemotherapy

There are other methods of having chemotherapy, but your options will depend on what is available, the type of cancer you have, and what your doctor recommends.

**Oral chemotherapy** – Many people need to take tablets or capsules at home. Your doctor, nurse or pharmacist will tell you how and when to take them, and how to handle the medication safely.

**Cream** – Some skin cancers are treated using a chemotherapy cream applied directly to the skin.

**Injections** – Less commonly, chemotherapy can be injected using a needle into different parts of the body:

- intramuscular – into a muscle, usually in your buttock or thigh
- subcutaneous – just under the skin
- intrathecal – into the fluid around the spine (also known as a lumbar puncture)
- intra-arterial – into an artery, for example, the hepatic artery in the liver
- intraperitoneal – into your abdominal area (peritoneum)
- intrapleural – into the outer lining of the lungs
- intravesical – into the bladder
- intralesional – into the tumour; this treatment is rare.

**Chemotherapy wafers** – Some people who have surgery for a brain tumour (craniotomy) will have small, dissolvable gel wafers of chemotherapy placed directly into the tumour site during the operation.
High-dose chemotherapy – This is a treatment given as part of a bone marrow or peripheral blood stem cell transplant for conditions such as leukaemia or lymphoma. The high-dose chemotherapy kills off all the cancer cells in the blood before the new, healthy cells are transplanted a day or two later.

Chemoembolisation – Used for liver cancer or some types of cancer that have spread to the liver, chemoembolisation is a procedure of injecting chemotherapy directly into the blood vessels supplying a tumour. The chemotherapy is mixed with tiny spheres that block the vessels and stop the tumour getting nutrients and oxygen.

Chemotherapy is time consuming
When you have chemotherapy you may spend a lot of time waiting, usually in hospitals: waiting for the doctor, for blood tests, for test results, for your drugs to be prepared and for the drugs to be given. There are sometimes additional delays due to safety checks, emergencies and busyness of the treatment centre.

Reading a book or magazine, doing crosswords, listening to music or talking to a companion can help pass the time.

Tip
Take water and snacks in case there are long waiting times. Most hospitals also have a cafeteria, so if you are there all day you can buy lunch.
Many treatment centres allow you to use a laptop, tablet or other electronic device, but there are sometimes restrictions on certain power points and the staff may request that you turn it off. Some people like to write or draw in a journal, meditate or practise relaxation techniques.

At first, you may be anxious seeing people who are sick because of cancer or their treatment. You may not identify with them, but many people find support from the other people who are receiving chemotherapy at the same time as them.

“I became good friends with another lady who began chemotherapy on the same day as me. We ended up going walking several times a week for 18 months. The companionship was a great support.” — Tania (breast cancer)

**Safety precautions**

Some people worry about the safety of their friends and family during chemotherapy treatment. Whether you have chemotherapy at home or in hospital, you, your carers and your family need to take precautions to avoid exposure to the drugs.

Your family and friends, including children, babies and pregnant women, can visit you while you’re having chemotherapy. The chemotherapy won’t harm them as long as they don’t have any direct contact with the drugs. However, if people without cancer come into direct contact with chemotherapy drugs, they may be harmed.
When you are receiving chemotherapy, you will notice that the oncology nurses and doctors wear gloves, goggles, gowns, and sometimes masks. This protective clothing reduces their risk of exposure to the drugs as they administer the chemotherapy. After treatment is over, these items are disposed of in special bags or bins.

After you have had chemotherapy, the drugs may remain in your body for up to a week after treatment. This depends on the types of drugs used. It is possible for the drugs to be passed into urine, stools and other body fluids such as saliva, vomit, semen and breast milk. Care needs to be taken so that other people are not exposed to the drugs through contact with your body fluids.

See the next page for a list of safety measures you should take at home to protect yourself and your family members.
Chemotherapy safety at home

Your medical team may recommend that you follow these safety guidelines during chemotherapy. Safety precautions may vary depending on the drugs you receive, so ask your medical oncologist.

- After using the toilet, flush it twice with the lid down for up to a week following a treatment session.
- Wash items soiled with body fluids in a separate load. Choose the maximum cycle that the fabric will allow.* After washing and line drying, these items can go back into general use. *Queensland Department of Human Relations Guide for Handling Cytotoxic Drugs and Related Waste recommends two wash cycles.
- Keep a supply of disposable rubber gloves and cleaning cloths on hand. To dispose of used gloves and cloths, seal them in a plastic bag before putting them in the bin.
- Wear rubber gloves when handling clothing or bed sheets soiled with vomit or any other body fluids.
- If body fluids or chemotherapy medication spill onto household surfaces (such as the carpet or a mattress), wear rubber gloves, soak up the spill with disposable paper towels, clean around the area with a disposable cloth and soapy water, and rinse the area with water.
about your individual situation. If you have any specific concerns – for example, if you use incontinence or ostomy aids – discuss them with your oncologist. For more information, call Cancer Council Helpline 13 11 20.

- If medication spills on your skin, wash it with soap and running water. Contact the hospital if any redness or irritation caused by the spillage doesn’t clear up within the hour.

- Take precautions to avoid pregnancy while you are having chemotherapy (see page 44). If you have a baby, you will not be able to breastfeed during your course of chemotherapy.

- Protect your partner from your body fluids by using a condom or a female condom if you have any type of sex within a few days after a treatment session. Your doctor or nurse can give you more information about how long you need to use this protection.

- Don’t crush or cut chemotherapy tablets. If you can’t swallow a tablet whole, talk to your doctor.

- Store chemotherapy tablets, capsules or injections as directed by your doctor or pharmacist. Keep them out of reach of children. Seal empty tablet containers in a plastic bag and return them to your pharmacy or hospital oncology department.
Is the treatment working?
Your doctor will use several methods to measure how well the chemotherapy is working. You will probably have physical examinations, blood tests and scans. These tests can show if the cancer has shrunk or disappeared. If the cancer has shrunk or hasn’t grown, the chemotherapy may continue.

You may wonder whether getting side effects is a sign that the chemotherapy is working. Side effects vary from person to person, and from drug to drug, and they do not show whether the treatment is effective or not.

If tests show that the cancer has disappeared, it will be a great relief. The doctors may refer to this as remission, which means there is no evidence of active cancer. Although the cancer is gone, your doctor will monitor you for several months or years before you are considered cured. This is because cancer can sometimes come back in the same place or grow in another part of the body.

Adjuvant chemotherapy is often used to prevent cancer coming back, so it may not be possible to tell if this treatment has been effective for some years. If chemotherapy is being given as palliative treatment, the relief of your symptoms will tell you if the treatment is working.

Targeted therapies
Other drugs may be used instead of or together with chemotherapy to target particular types of cancer cells while minimising harm to healthy cells. These are called targeted therapies.
Targeted therapies have different actions to help destroy or stop the growth of cancer cells. Not all cancers respond to targeted therapies, and some of these therapies are only available in clinical trials (see page 48). Talk to your doctor for more information.

**Drug therapies**

There are several types of targeted drug therapies for cancer:

- **Angiogenesis inhibitors** – For cancer cells to grow and spread from their primary site to other areas of the body, they need to make their own blood vessels. Drugs known as angiogenesis inhibitors attack developing blood vessels so that the cancer can’t grow and spread.

- **Enzyme inhibitors** – These drugs may block certain proteins or enzymes that tell cancer cells to grow. They are sometimes called small molecule drugs.

- **Apoptosis-inducing drugs** – Apoptosis means cell death. These drugs target the part of the cancer cell that tells it when to die.

**Immunotherapies**

Immunotherapies (also called biological therapies) strengthen the immune system so it finds and kills cancer cells. There are two types of immunotherapy:

- **Active immunotherapies** – Therapies that stimulate your immune system to fight infection and disease. You might be given a vaccine to make your body produce antibodies to fight cancer.
• **Passive immunotherapies** – Using man-made (synthetic) antibodies developed in a laboratory to get your immune system to fight cancer cells.

**Side effects**
You may have side effects that are caused by the targeted therapy rather than by the chemotherapy. Side effects depend on the medication used. Some typical effects are fevers, allergic reactions, rashes, diarrhoea and blood pressure changes.

Rarely, some targeted therapies may cause life-threatening side effects. Your doctor will discuss this with you.

Tell your doctor if you plan to take over-the-counter medications, home remedies or complementary therapies such as herbal or nutritional supplements. Some remedies worsen side effects or affect how chemotherapy works in your body. For example, the herb St John’s Wort can reduce the effectiveness of some drugs.

**Which health professionals will I see?**
Your general practitioner (GP) will refer you to a specialist, who can advise you about your treatment options. Your GP may also play an important role in your ongoing care and help you manage any side effects you experience.

You will be cared for by a range of health professionals when you have chemotherapy. This multidisciplinary team will probably include:
<table>
<thead>
<tr>
<th>Health professional</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>medical oncologist and haematologist</td>
<td>specialists who can prescribe and coordinate the course of chemotherapy</td>
</tr>
<tr>
<td>radiation oncologist</td>
<td>specialist who prescribes and coordinates the course of radiotherapy, which is sometimes used with chemotherapy</td>
</tr>
<tr>
<td>registrar</td>
<td>a qualified doctor undergoing additional training to be a specialist (for example as a medical oncologist or radiation oncologist)</td>
</tr>
<tr>
<td>nurses</td>
<td>give the course of treatment and support and assist you through all stages of your treatment</td>
</tr>
<tr>
<td>cancer nurse coordinator/clinical nurse consultant/cancer care coordinator</td>
<td>coordinates your care and liaises on your behalf with different specialist care providers</td>
</tr>
<tr>
<td>pharmacist</td>
<td>dispenses medications and gives advice about drugs, dosage and side effects</td>
</tr>
<tr>
<td>social worker, physiotherapist and occupational therapist</td>
<td>link you to support services and help you to resume your normal activities</td>
</tr>
<tr>
<td>dietitian</td>
<td>recommends an eating plan to follow while you are in treatment and recovery</td>
</tr>
<tr>
<td>palliative care team</td>
<td>helps you and your family with needs you have, including symptom management</td>
</tr>
</tbody>
</table>
Key points

• Intravenous (IV) chemotherapy (delivered via a tube into a vein) is the most common way chemotherapy is given.

• Usually people will have this as an outpatient at a hospital or clinic, but sometimes they can have it at home using a portable pump.

• Oral chemotherapy as tablets or capsules is also common.

• Some chemotherapy is specific for different cancers: e.g. cream for skin cancer, chemoembolisation for liver cancer, or wafers for brain cancer. There is a range of chemotherapy drugs that have different actions. Many drugs are often combined. Different drugs and combinations are effective for different cancer types.

• Chemotherapy can be harmful to others if they are exposed to it. For this reason, nurses and doctors wear protective clothing when giving chemotherapy. However, it is safe to be around family members and friends, including children and pregnant women.

• Your medical team will advise you about taking precautions at home to make sure your family members don’t come into contact with your body fluid, such as urine or vomit, as the drugs may be passed into it. You should also handle medication safely.

• Drugs known as targeted therapies may be used instead of or with chemotherapy to target particular types of cancer cells.

• You will see a range of health professionals when you have chemotherapy. This includes a medical oncologist, nurses and allied health professionals.
Managing side effects

The most important effect of chemotherapy is that it kills cancer cells. However, chemotherapy can also affect normal cells that rapidly divide and grow, such as those in the bone marrow, digestive tract, skin, hair and reproductive organs. When the normal cells are damaged, this can cause side effects.

This chapter discusses the most common side effects people experience and offers suggestions to help manage them.

- It is natural to worry about side effects. However, whether or not you experience side effects, and how severe they are, depends on the type of drugs you’ve been prescribed and how you react individually from one treatment period to the next.

- Side effects vary greatly. Some people will have no side effects, others will experience a range. If you have side effects, they will usually start during the first few weeks of treatment.

- Most side effects are temporary and can be managed. They tend to gradually disappear once treatment has stopped.

You should talk to your doctor or nurse before your treatment begins about the side effects you should watch out for or report, and who to contact out of hours if you have immediate concerns.

If the side effects impact on your appearance and self-esteem, you may find it helpful to attend a free Look Good...Feel Better program, which teaches you about using skin care, hats, wigs and cosmetics. To book, call 1800 650 960 or visit www.lgfb.org.au.
**Chemotherapy diary**

It can be useful to record information about your chemotherapy treatment in one place so you recall details about any side effects you’re experiencing and what helped to reduce them. Some people like to write down notes – see pages 66–67 for a blank diary you can fill in and photocopy. Other people choose to record things another way – for example, by using their smartphone.

Share the information you record with your doctors and nurses so that they can give you suggestions for dealing with side effects or adjust your treatment, if appropriate.

**Feeling tired and lacking energy**

Feeling tired and lacking energy (fatigue) is the most common – and often, debilitating – side effect of chemotherapy. Fatigue can include feeling exhausted, drowsy, confused or impatient. You may have a heavy feeling in your limbs, or find it difficult to do daily activities.

Fatigue can appear suddenly and rest may not relieve it. You might still feel tired for weeks or months after a treatment cycle ends.

💬 I had no idea that I would still be feeling tired five months after finishing treatment...I didn’t know how to make it better and I was scared that’s how it would be: that I wouldn’t go back to normal, that I would never go back to having energy again. 💬 George (bowel cancer)
• Save your energy. Help your body recover by doing less and resting more.

• Let people help you. Family, friends and neighbours often want to assist but may feel unsure about what to do. They could help with shopping, child-care, driving or housework.

• If you are employed, consider whether you could take some time off, reduce your hours or work from home during or after chemotherapy. Some workplaces might allow you to work flexibly around your treatment.

• If there is a time during the day when you tend to feel most energetic, try to plan activities during this time.

• Do light exercise, such as walking. If you have a normal exercise routine and you feel up to it, ask your doctor if you can exercise.

• Don’t start any new exercise activities until you have recovered from treatment.

• Try to get more sleep at night and take naps during the day if you can.

• If you aren’t sleeping well, tell your health care team. Only take sleeping pills that are recommended or prescribed by your doctor.

• Some people benefit from doing relaxation or meditation exercises (see page 50).

• Try to eat a healthy, well-balanced diet with plenty of fruits and vegetables.

• If you have a poor appetite, nausea or vomiting, see pages 30–31 for tips.

• Check with your doctor whether your fatigue is related to low red blood cells (anaemia) so that this can be treated – see page 38.
Loss of appetite, nausea or vomiting

It is common for your appetite to change when you are going through chemotherapy. Sometimes you may not feel hungry, or you may not enjoy the foods you used to like. Some treatments temporarily change the taste of foods.

Chemotherapy may make you feel sick ( nauseous) or vomit. Not everyone feels sick during or after chemotherapy, but if nausea affects you, it usually starts a few hours after treatment. Nausea may last for many hours and be accompanied by vomiting or retching.

Anti-nausea or anti-vomiting medication can help. This medicine can be taken before, during or after treatment. It may be available as:

- **injections** – usually given before chemotherapy
- **tablets** – can be taken regularly at home
- **wafers** – dissolved under or on top of the tongue
- **suppositories** – placed in the rectum where they dissolve
- **liquids** – added to the chemotherapy.

Your medical oncologist will tell you if the drugs you are given are likely to cause nausea and vomiting. You may be prescribed medication in advance so you don’t experience the side effects, or so they are reduced. It may take some time before you find a medication that works for you, so let your nurse or doctor know if you still have nausea after a few days taking the medication or if you have vomited for more than 24 hours.

Trying to eat as well as possible will help you recover sooner and cope better with the treatment and its side effects.
• Eat a light meal before your treatment (e.g. soup and dry biscuits or toast), and drink as much fluid as possible.

• Sip small amounts of liquid often, rather than trying to drink a lot at once. Sucking on ice cubes, ice-blocks or jellies can also help to increase your fluid intake.

• If your stomach is upset, try drinking fizzy drinks such as soda water or dry ginger ale.

• If you wake up feeling sick, eat a dry biscuit or a slice of toast rather than skipping food altogether or forcing yourself to have a full meal.

• Breathe deeply and gently through your mouth if you feel like you’re going to vomit.

• If you are nauseous or have vomited a lot, try to keep your fluids up so that you don’t get dehydrated. If you aren’t able to keep fluids down, contact your doctor immediately.

• Avoid strong odours and cooking smells.

• Eat and drink slowly. Chew your food well to make it easier to digest.

• Prepare meals between treatments and freeze them for the days you don’t feel like cooking.

• Be flexible about your meals. Try to eat when you are hungry, and don’t delay eating when you feel like it.

• Eat small, frequent snacks instead of large meals.

• If the taste of certain types of food has changed, don’t force yourself to eat them. Your sense of taste should return to normal after treatment ends, but it may take several weeks.

• Speak to the hospital dietitian for advice about eating.

• Call Cancer Council Helpline 13 11 20 for free information about eating healthily during and after treatment.
Hair loss

Many people having chemotherapy worry about hair loss. Some people lose all their hair quickly, others lose it after several treatments, and others may only lose a little hair or none at all.

When hair loss does occur, it usually starts 2–3 weeks after the first treatment and grows back when chemotherapy is completed. Your scalp may feel hot, itchy, tender or tingly before and while your hair is falling out. Some people find that the skin on their head is very sensitive, and they may develop pimples on their scalp.

Although losing head hair is most common, you may also lose hair from your eyebrows, eyelashes, arms, legs, chest and pubic region.

Whether or not you lose your hair depends on the drugs you receive. Some drugs don’t cause this side effect. Ask your doctor if this is a possible side effect and discuss how you can prepare for it.

It takes 4–12 months to grow back a full head of hair. When your hair first grows back, it may be a different colour or curly (even if you have always had straight hair). In time your hair usually returns to its normal condition.

Many people find losing their hair very difficult. You may feel that hair makes up a part of your overall image and its loss can make you feel physically unattractive, vulnerable or sad. It’s natural to feel this way. Talking to your medical team may be helpful.
• Keep your hair and scalp very clean.

• Use a mild shampoo like baby shampoo. If you want to use lotion on your head, use sorbolene. Check with your nurse before using any other hair or skin care products.

• Comb or brush your hair gently using a large comb or hairbrush with soft bristles.

• Wear a light cotton turban or beanie to bed if you are cold at night, or to collect hair.

• Use a cotton, polyester or satin pillowcase, as nylon can irritate your scalp.

• If you prefer to leave your head bare, protect it against sunburn and the cold.

• Make an appointment with a hairdresser who can make your hair look as good as possible even if it is thin or patchy.

• Avoid perms and dyes, and limit the use of hair dryers, rollers and harsh products.

• If your eyelashes fall out, wear glasses or sunglasses to protect your eyes from the sun and dust while outside.

• Tell your nurse or doctor if the skin on your scalp is very sensitive, or if you have a lot of discomfort and itchiness.

• Wear a wig, toupee, hat, scarf or turban. Do whatever feels the most comfortable and gives you the most confidence.

• Some hospitals or treatment centres have a wig library where you can borrow a wig if you need one. Ask your doctor or nurse for more information.

• If you want to purchase a wig and you have private health insurance, check with your fund to see if you are eligible for a rebate.

• Call Cancer Council Helpline 13 11 20 for assistance in finding a wig library or shop.
Skin problems
Your skin may darken, peel or become dry and itchy when you are having chemotherapy. It is also likely to be more sensitive to the sun. Protect your skin from the sun – especially between 10am and 3pm – by wearing high-protection sunscreen (SPF 30+), a hat and protective clothing. This advice applies to everyone, but it is even more important for people having chemotherapy.

- Shower using a moisturising soap or sorbolene cream as a soap replacement.
- After showering, gently pat your skin dry with a towel. Try not to rub your skin too hard.
- Use a moisturising lotion or cream containing the ingredient urea to stop the dryness.
- Dust cornflour over the itchy parts of your skin.
- Wear loose, non-restricting clothing. Choose cotton fabric instead of rough wool or synthetic fibres.
- Wash your clothing in mild detergent for people with sensitive skin.
- Stop shaving or waxing until your skin is completely healed.
- Drink plenty of water.
- If your skin becomes red or sore in the area where the intravenous device went in, tell your doctor or nurse immediately.

Constipation or diarrhoea
Some chemotherapy drugs, pain relief medicines and anti-nausea drugs can cause constipation or diarrhoea. Tell your doctor or nurse if your bowel habits have changed.
After a bout of constipation or diarrhoea, eat a balanced diet with fresh fruits, vegetables, wholegrain bread and pasta.

**Constipation**

- Eat more high-fibre foods, such as wholegrain bread and pasta, bran, fruit and vegetables, nuts and legumes (e.g. baked beans or lentils).
- Sometimes drinking fruit juice can help ease constipation. Try prune, apple or pear juice.
- Drink plenty of other fluids, both warm and cold, to help loosen the bowels.
- Do some light exercise, such as walking.
- Don’t use enemas or suppositories. They are not recommended for people having chemotherapy.
- If you have constipation for more than a couple of days, let your doctor or nurse know. They may change your medication or give you other medication to relieve it.

**Diarrhoea**

- Choose bland foods such as clear broth or boiled rice. Avoid spicy foods, wholegrain products, fatty or fried foods, rich gravies and sauces, and raw fruits or vegetables with skins or seeds.
- Limit alcohol, fruit juice, soft drinks, strong tea or coffee and dairy products, as these may further stimulate the bowel.
- Drink water to help replace the fluids lost through diarrhoea.
- Diarrhoea can usually be treated at home with over-the-counter medication. Talk to your doctor or pharmacist.
- If the diarrhoea becomes severe, it can cause dehydration and you may need to be admitted to hospital.
Mouth sores
Some chemotherapy drugs can cause mouth sores such as ulcers or infections. This is more likely if you have had or are having radiation to the head, neck or chest, or if you have dental or gum problems.

If you notice any change in your mouth or throat, such as sores, ulcers or thickened saliva, or if you find it difficult to swallow, contact your doctor. You should also discuss any dental problems with your doctor before seeing the dentist. If you need any dental work, tell your dentist you are having chemotherapy.

tips

- Use a soft toothbrush to clean your teeth twice a day.
- Don’t use commercial mouthwashes containing alcohol as they may dry out or irritate your mouth. Instead, try homemade mouthwash (1 tsp bicarbonate of soda or salt in a glass of warm water) at least four times a day. This helps keep your mouth clean, while the salt mouthwash helps heal mouth sores.
- Sip fluids, especially water, and eat moist foods such as casseroles or soups if you have a dry mouth. Moisten foods with butter and sauces.
- Try sucking on ice while you’re having intravenous chemotherapy to reduce mouth ulcers.
- Blend foods to make them easier to eat.
- Nourishing drinks such as milkshakes, smoothies and supplements add extra energy to your diet and feel soothing.
- Avoid very hot foods, and spicy, acidic or coarse foods, (e.g. nuts or grains), as these can aggravate mouth sores.
- Don’t smoke or drink alcohol, as this irritates tissue in the mouth.
Memory and concentration changes

Some people say they have trouble thinking clearly after chemotherapy. This is called cognitive impairment or, sometimes, ‘chemo brain’. You may find that it takes you more time to process information, or you may experience short-term memory loss or have trouble concentrating for long periods.

There is some evidence that self-help techniques such as relaxation, exercise and memory games can be beneficial. You can also try focusing on activities that don’t require too much concentration. For example, you might choose to read magazines with short articles instead of books with several characters or complex storylines. Tell your doctor if this issue is affecting your day-to-day life.

**tips**

- Use a calendar to keep track of tasks, appointments, social commitments, birthdays, etc.
- Write down things you have to remember. For example, make to-do lists or write down where you parked the car.
- Learn something new, take up a new hobby, or do crosswords, word or number puzzles.
- Plan activities to do things that require more concentration when you are fresher, such as in the morning.
- Get plenty of sleep. Deep sleep is important for memory and concentration.
- Do light exercise each day as this may help you to clear your mind and sleep better.
- Talk to others about how you’re feeling – for example, your partner or colleagues – to prevent misunderstandings and frustration.
Effects on the blood & immune system

Some chemotherapy drugs affect the bone marrow, which is the soft and spongy material inside the bones. The bone marrow makes three types of blood cells:

- **red blood cells** – carry oxygen throughout the body
- **white blood cells** – fight infection
- **platelets** – help blood to clot and prevent bruising.

The bone marrow’s job is to maintain normal levels of blood cells (your blood count) to keep you fit and healthy. When chemotherapy affects the bone marrow, your blood count is reduced. The count may fall with each treatment. This can cause problems such as anaemia, infections and bleeding problems, depending on the type of blood cell affected.

Your health care team will do regular blood tests to make sure your blood cells return to normal levels before your next treatment.

**Anaemia**

A low red blood cell count is called anaemia. This can make you feel tired, lethargic, dizzy or breathless.

You may need a blood transfusion to build up your red blood cells and treat the anaemia.

Eating a nourishing diet with foods rich in iron and B vitamins is also important if you are anaemic. Wholegrain breads and cereals, lean meat and green leafy vegetables are good sources of iron and vitamin B.
Infections
If white blood cell numbers drop during chemotherapy treatment, it can make colds and flu harder to shake off. Scratches and cuts may get infected easily or take longer to heal.

See your doctor if you are unwell – even if you just have a cold. Sometimes doctors recommend taking antibiotics as a precaution against infection. If you are having chemotherapy in winter, check with your doctor about having the flu vaccine.

You may have an injection of granulocyte-colony stimulating factor (G-CSF) after chemotherapy if your doctor thinks it will be useful for you. It increases the number of neutrophils, which are a type of white blood cell that help protect against infection. If G-CSF is given, your doctor or nurse will speak to you about possible side effects. Some people may experience bone pain or tenderness at the injection site or show signs of an allergic reaction.

When to contact your doctor
Contact your doctor urgently if any of the following occur:
- chills or sweats
- a temperature of 38°C or more
- persistent or severe vomiting
- severe abdominal pain, constipation or diarrhoea
- unusual bleeding
- tenderness, redness or swelling around the site of the intravenous chemotherapy device
- any serious unexpected side effects or sudden deterioration in health.
Also, contact your GP or treating specialist if you experience:
- sweating, especially at night
- sore throat
- mouth ulcers
- burning or stinging on passing urine
- easy bruising.

**tips**
- Keep a thermometer at home to check your temperature.
- Some people having chemotherapy prefer to avoid crowded places such as shopping centres or public pools to reduce the risk of picking up an infection. This is not always practical, so use your commonsense.
- Wash your hands with soap and water before preparing food and eating, and after using the toilet.
- Use separate boards and utensils for raw and cooked foods, and clean thoroughly with hot, soapy water.
- Leftover food should be stored in airtight containers in the fridge as soon as possible.
- Store raw and cooked foods separately.
- Try to eat freshly cooked or freshly prepared foods.
- Don’t eat food or drinks past their use-by or best before dates.
- Wash fruits and vegetables well, or peel where possible.
- Avoid pre-made sandwiches, salads and takeaway foods; soft cheeses; raw or rare fish, meat and eggs; unpasteurised dairy products and soft-serve ice-creams.
- Avoid people who are unwell, especially if they have the flu, conjunctivitis, measles, mumps, a cold sore or chickenpox.
**Bleeding problems**
A decrease in platelets can cause you to bleed for longer than normal after minor cuts or scrapes, or to bruise more easily. You may need a platelet transfusion if they are low.

- Be careful when using scissors, needles, knives or razors. Small cuts or nicks can harbour germs where an infection can start.
- Use an electric razor to minimise the chance of nicking yourself.
- Use a soft toothbrush to avoid irritating your gums.
- Wear thick gloves when gardening to avoid injury, and to prevent infection from soil, which contains bacteria.
- If you bleed, apply pressure for about 10 minutes and bandage, if appropriate.

**Nerve and muscle effects**
Some drugs can cause tingling and loss of sensation in your fingers and/or toes, and muscle weakness in your legs. If this happens, tell your doctor or nurse before your next treatment. Your treatment may need to be changed or the problem carefully monitored.

“I had numbness and terrible pain in my hands from one drug. Doing exercises and soaking my hands in warm water helped. The doctors stopped that drug so the side effects wouldn’t become permanent.” — Ann (ovarian cancer)
Change in hearing
Some chemotherapy drugs can affect your hearing. You may lose some of your ability to hear high-pitched sounds. It can also cause a continuous ringing noise in the ears known as tinnitus. Let your doctor know if you notice any change in your hearing.

Sex and fertility
Chemotherapy may impact on your desire or ability to have sex because you feel tired or unwell. It may also affect sexual organs and functioning in both women and men. This can lead to a temporary or permanent effect on your ability to have children (your fertility).

Changes in sexuality
Many people have a range of worries that cause them to lose interest in sex while they’re having treatment. They may feel less confident about who they are and what they can do, or there may be a physical reason for not being able or ready to have sex. For example, vaginal dryness or erection difficulties are common issues after treatment.

Partners may also feel concerned about having sex – they might fear injuring the person with cancer or feel uncomfortable with the changes in their partner. If you have sex after receiving chemotherapy, you should take safety precautions – see page 21.

Sexual intercourse may not always be possible, but closeness and sharing can still be a part of your relationship. Talk about how you’re feeling with your partner, and take time to adapt to any changes.
Try to see yourself as a whole person (body, mind and personality) instead of focusing only on what has changed.

**Changes in fertility**

It is best for you and your partner to talk to your doctor about how chemotherapy might affect you personally and what options are available if you want to have children in the future. Women may be able to store eggs (ova) and men may be able to store sperm for use at a later date. This needs to be done before chemotherapy starts.

**Effects on women**

- Some women’s periods become irregular during chemotherapy but return to normal after treatment.
- For other women, chemotherapy may cause periods to stop completely (menopause).
- After menopause, women can’t have children by natural means. The signs of menopause include hot flushes, sweating – especially at night – and dry skin.
- Menopause – particularly if it’s early (before age 40) – may cause bones to become weaker and break more easily. This is called osteoporosis.
- Talk to your doctor about medication to treat the symptoms of menopause.

For more information about pregnancy and chemotherapy, see pages 11–12.
**Effects on men**

- Chemotherapy drugs may lower the number of sperm produced and reduce their ability to move. This can sometimes cause infertility, which may be temporary or permanent.
- The ability to get and keep an erection may also be affected but this is usually temporary. If the problem is ongoing, seek medical advice.

For more information, call Cancer Council Helpline 13 11 20 for free resources on sexuality and intimacy.

**Contraception**

Although chemotherapy reduces fertility, it is still possible for some women to become pregnant while having chemotherapy, and a man having chemotherapy could still make his partner pregnant.

Chemotherapy drugs can harm an unborn baby, so women should not become pregnant during the course of chemotherapy, and men should not father a child. Should you or your partner become pregnant, talk to your treating doctor immediately.

The type of birth control you choose will depend on what you and your partner are comfortable using. Ask your doctor for advice about the best type of birth control method for you. Some people choose to use barrier contraception (e.g. condoms), which provide protection against any cytotoxic drug by-products that may be secreted in body fluids. Young women may be prescribed the Pill as a contraceptive and to help protect the ovaries from the effects of chemotherapy.
Key points

- Many people experience side effects from chemotherapy. Side effects are caused when the chemotherapy damages rapidly dividing healthy cells.

- Most side effects are temporary and gradually go away after you’ve finished treatment.

- Common side effects include feeling tired, loss of appetite, nausea, mouth sores, digestive problems, hair loss and skin problems.

- You may also have nerve and muscle effects, hearing changes and a reduced ability to concentrate or remember things.

- You will also be at an increased risk of infections. This is because chemotherapy can reduce your levels of white blood cells, which are necessary for fighting infections.

- You may have sexuality and fertility problems, such as reduced sexual desire or loss of fertility. You might be able to store eggs (ova) or sperm for use at a later date. Talk to your doctor about these issues.

- Your doctor or nurse will advise you on how to cope with any side effects. You may be given medication or suggestions for eating, drinking and looking after yourself.

- If you have any side effects that weren’t discussed with you before treatment, let your health care team know so that they can help you.

- It may be helpful to record your symptoms, when they occurred and what you did to relieve them. Show your notes to your doctor or nurse so they are aware of how the chemotherapy is affecting you.
Making treatment decisions

Sometimes it is difficult to decide on the right treatment. You may feel that everything is happening so fast you don’t have time to think things through. If you are feeling unsure about your options, check with your doctor how soon your treatment should start, and take as much time as you can before making a decision.

Understanding details about the disease, the available treatments and their possible side effects will help you make a well-informed decision. This decision will also take into account your personal values and the things that are important to you and your family. It is common to feel overwhelmed by information so it may help if you read and talk about the cancer gradually.

- Weigh up the advantages and disadvantages of different treatments, including the impact of any side effects.

- If only one type of treatment is recommended, ask your doctor why other choices have not been offered.

- If you have a partner, you may want to discuss the treatment options together. You can also talk to friends and family.

You have the right to accept or refuse any treatment offered by your doctors and other health care professionals. Some people with advanced cancer choose treatment even if it only offers a small benefit for a short period of time. Others want to make sure the benefits outweigh the side effects so that they have the best possible quality of life. Some people choose options that focus on reducing symptoms and make them feel as well as possible.
Talking with doctors

When your doctor first tells you that you have cancer you may not remember all the details about what you are told. You may want to see the doctor again before deciding on treatment. Ask for the time and support to make your decision.

If you have questions, it may help to write them down before you see the doctor. You can also check the list of suggested questions on page 60. Taking notes or recording the discussion can help too. Many people like to have a family member or friend go with them to take part in the discussion, take notes or simply listen.

If your doctor uses medical terms you don’t understand, ask for an explanation in everyday language. You can also check a word’s meaning in the glossary (see page 61).

If you have several questions for your doctor, ask if it is possible to book a longer appointment.

A second opinion

Getting a second opinion from another specialist may be a valuable part of your decision-making process. It can confirm or clarify your doctor’s recommendations and reassure you that you have explored all of your options.

Some people feel uncomfortable asking their doctor for a second opinion, but specialists are used to people doing this.
Your doctor 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. Alternatively you may decide you would prefer to be treated by the doctor who provided the second opinion.

**Taking part in a clinical trial**

Your doctor may suggest you consider taking 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. Over the years, trials have improved treatments and led to better outcomes for people diagnosed with cancer.

If you join what is called a randomised trial for a new treatment, you will be chosen at random to receive either the best existing treatment or the promising new treatment.

To help you decide whether or not to participate, you can talk to your specialist or the clinical trials nurse. If you’re still unsure, you can also ask for a second opinion from an independent specialist. If you do decide to take part, you have the right to withdraw from the trial at any time; doing so will not jeopardise your ongoing treatment for cancer.

For more information about clinical trials and other research, including questions to ask your doctor and how to find a suitable study, call Cancer Council Helpline 13 11 20. You can also find trials on the website www.australiancancertrials.gov.au.
Cancer can cause physical and emotional strain. It can also impact on your body image, relationships and outlook for the future. It’s important to take time to look after yourself by eating well, exercising, reducing stress and improving your well-being.

Healthy eating
Eating nutritious food will help you keep as well as possible and cope with cancer and treatment side effects. Depending on your treatment, you may have special dietary needs. A dietitian can help you manage any eating difficulties, and choose the best foods and meals for your situation.

Cancer Council Helpline can send you free information about nutrition and cancer.

Staying active
Research shows it is helpful to stay active and exercise regularly if you can. Physical activity, even if gentle or for a short duration, helps to improve circulation, reduce tiredness and elevate mood. The amount and type of exercise you do will depend on what you are used to, how well you feel and what your doctor advises.

If you aren’t used to exercise or haven’t exercised for a while, make small changes to your daily activities. You could walk to the shops, take the stairs, do some gardening or join a gentle exercise class. If you want to do more vigorous or weight-bearing exercise, ask your medical team what is best for you.
Smoking and cancer

If you smoke, it’s best to try to quit, especially while you are having chemotherapy. Smoking during chemotherapy may reduce the effectiveness of the treatment.

Research has shown that people who have never smoked or ex-smokers have a better survival rate from cancer than smokers. Recent studies also suggest that smoking during chemotherapy may reduce the effectiveness of the treatment.

Talk to your doctor for advice, or call 13 QUIT (13 7848) to talk to a Quitline adviser and request a free Quit Pack. See www.quitnow.info.au for some tips.

Complementary therapies

Complementary therapies are treatments that may help you cope better with side effects such as pain. They may also increase your sense of control over what is happening to you, decrease your stress and anxiety, and improve your mood.

There are many types of complementary therapies, such as herbal medicine, acupuncture, massage, relaxation and meditation. Some cancer treatment centres offer these therapies as part of their services, but you may have to go to a private practitioner. Self-help CDs or DVDs can also guide you through different techniques.

Let your doctor know about any complementary therapies you are using or thinking about trying. Some therapies may not be appropriate, depending on your medical treatment. For example, herbs and nutritional supplements may interact with...
chemotherapy or surgery, resulting in harmful side effects. Massage, acupuncture and exercise therapies should also be modified if you have lowered immunity, low platelets or fragile bones.

Alternative therapies are often defined as those used instead of conventional medical treatments. These therapies may be harmful if people with cancer delay or stop using medical treatment in favour of them. Examples are coffee enemas and magnet therapy.

Call Cancer Council Helpline 13 11 20 for more information about complementary therapies and alternative therapies.

“My GP was supportive of me trying reflexology for neuropathy caused by chemotherapy. I had about 20 sessions over a three-year period. It helped the problem, although not completely.” — Rodney (Burkitt’s lymphoma)

Relationships with others
For many people, the experience of having cancer and any ongoing challenges causes them to make some changes in their life. You may also have a new outlook on your values, priorities, or life in general. Some people find that these changes can affect their relationships. However, sharing your thoughts and feelings with family, friends and colleagues may help to strengthen your relationships with them.
If you feel uncomfortable talking about your feelings, take your time and approach others when you are ready. People usually appreciate insight into how you are feeling and guidance on providing support during and after treatment. Calling Cancer Council Helpline may help you build your confidence to discuss your feelings with others.

Give yourself time to adjust to your cancer diagnosis, and do the same for friends and family. People often react in different ways, for example being overly positive, playing down fears, or keeping a distance. They are also dealing with the diagnosis and the changes.

If someone’s behaviour upsets you, it might help to discuss how you both feel about the situation.

**Life after treatment**
Life after cancer treatment can present its own challenges. You may need to take some time to adjust to any physical and emotional changes.

You may have mixed emotions. Beforehand, you may have been busy with appointments and focused on treatment, but afterwards
you may feel anxious or vulnerable. You might worry about every ache and pain and wonder if the cancer is coming back.

Some people say that after cancer they have changed priorities and see life in a new way. For example, you may decide to travel, spend more time with family, or do volunteer work. Although you might feel pressure to return to normal life, you may find that you don't want your life to return to how it was before cancer.

You might find it helpful to:

• take time to adjust to physical and emotional changes
• re-establish a new daily routine at your own pace
• spend time on a leisure activity you enjoy
• maintain a healthy diet and lifestyle
• schedule regular check-ups with your doctor
• share your concerns with family and friends and tell them how they can support you
• call Cancer Council Helpline 13 11 20 to connect with other people who have had cancer, or to request a free booklet about life after cancer.

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.

Counselling or medication may help you. Some people are eligible for a Medicare rebate for sessions with a psychologist. Talk to your doctor or call the Helpline for information.
What if the cancer returns?
For some people, cancer does come back even though they’ve had chemotherapy. This is known as a relapse or a recurrence.

Regular check-ups allow your doctor to monitor your health and to look for signs that the cancer might be coming back.

If you have a relapse, further treatment can be given – usually using a different combination of chemotherapy drugs from those you had before. This will hopefully lead to a second remission.

“Biopsies, tests and scans indicated that the cancer was back. I joined a clinical trial and had two courses of aggressive chemotherapy. After a couple of months I was in remission. Since then, I’ve had quarterly, then half-yearly, scans and check-ups.”  Raymond (large B-cell lymphoma)
When you are first diagnosed with cancer, and during different stages of treatment and recovery, you may experience a range of emotions, such as fear, sadness, anxiety, anger or frustration. If sadness or anxiety is ongoing or severe, talk to your doctor.

It may help to talk about your feelings. Your partner, family members and friends can be a good source of support, or you might prefer to talk to:

- your treatment team
- a counsellor, social worker or psychologist
- your religious or spiritual adviser
- a support group or someone who has had a similar experience to you – see page 57
- Cancer Council Helpline.

If you need practical assistance, such as help around the house, it may be hard to tell people what would be useful. You might prefer to ask a family member or friend to coordinate offers of help.

You may find that while some people you know are supportive, others struggle to know what to say to you. If you have children, the prospect of telling them you have cancer can be unsettling. Cancer Council has a range of free resources to help people talk about cancer and deal with the emotions that cancer may bring up. Publications are available for people with cancer, partners, carers, children, friends and colleagues.

Call 13 11 20 for resources and support. You can also download booklets from the Cancer Council website.
**Practical and financial help**

A serious illness can cause practical and financial difficulties. Many services are available so you don’t have to face these problems alone:

- Financial or legal assistance – through benefits, pensions and programs – may help pay for prescription medicines, transport costs to medical appointments, utility bills or basic legal advice.

- Meals on Wheels, home care services, aids and appliances can be arranged to help make life easier at home.

- Subsidised travel and accommodation may be available if you need to travel long distances for treatment.

- Home nursing care may be available through community nursing services or local palliative care services.

Ask Cancer Council Helpline or your hospital social worker, occupational therapist or physiotherapist which services are available in your area and if you are eligible to receive them.

**Cancer Council library***

Following a cancer diagnosis many people look for information about new types of treatment, the latest research findings and stories about how other people have coped. Cancer Council has a range of books, CDs, DVDs and medical journals that may be helpful for you. Call the Helpline for more information.

*Not available in Victoria and Queensland*
Talk to someone who’s been there

Coming into contact with other people who have had similar experiences to you can be beneficial. You may feel supported and relieved to know that others understand what you are going through and that you are not alone. There are many ways for you and your family members to connect with others for mutual support and to share information.

In these support settings, people often feel they can speak openly and share tips with others. You may find that you are comfortable talking about your diagnosis and treatment, your relationships with friends and family, and your hopes and fears for the future.

Ask your nurse, social worker or Cancer Council Helpline about suitable support groups and peer support programs in your area.

Types of support services*

**Face-to-face support groups** – often held in community centres or hospitals

**Online discussion forums** – where people can connect with each other at any time – see [www.cancerconnections.com.au](http://www.cancerconnections.com.au)

**Telephone support groups** – for certain situations or types of cancer, which trained counsellors facilitate

**Peer support programs** – match you with a trained volunteer who has had a similar cancer experience, e.g. Cancer Connect.

* Not available in all areas
You may be reading this booklet because you are caring for someone with cancer. Being a carer can be stressful and cause you much anxiety. Try to look after yourself – give yourself some time out and share your worries and concerns with somebody neutral such as a counsellor or your doctor.

Many cancer support groups and cancer education programs are open to carers, as well as people with cancer. Support groups and some types of programs can offer valuable opportunities to share experiences and ways of coping.

Support services such as Home Help, Meals on Wheels or visiting nurses can help you in your caring role. There are also many groups and organisations that can provide you with information and support, such as Carers Australia, the national body representing carers in Australia. Carers Australia works with the Carers Associations in each of the states and territories. Phone 1800 242 636 or visit www.carersaustralia.com.au for more information and resources.

You can also call Cancer Council Helpline 13 11 20 to find out more about different services and to request free information for carers and families looking after someone with cancer.
The internet has many useful resources, although not all websites are reliable. The websites below are good sources of information.

**Australian**

Cancer Australia........................................ [www.canceraustralia.gov.au](http://www.canceraustralia.gov.au)
HealthInsite........................................ [www.healthinsite.gov.au](http://www.healthinsite.gov.au)

**International**

American Cancer Society................................. [www.cancer.org](http://www.cancer.org)
Macmillan Cancer Support................................. [www.macmillan.org.uk](http://www.macmillan.org.uk)
National Cancer Institute................................. [www.cancer.gov](http://www.cancer.gov)
Chemocare........................................ [www.chemocare.com](http://www.chemocare.com)
Question checklist

You may find this checklist helpful when thinking about the questions you want to ask your doctor about your disease and treatment. If your doctor gives you answers that you don’t understand, ask for clarification.

- Why do I need chemotherapy?
- What are the advantages and disadvantages of chemotherapy for me?
- How successful is chemotherapy for my type of cancer?
- Are there any other treatments I can have instead?
- How much does treatment cost?
- What drugs will I be receiving? How will they be given?
- How often will I receive this treatment? How long will I have treatment?
- Where will I have the chemotherapy? Can I have it close to where I live?
- What are the possible side effects of this treatment and what can I do to control them?
- Are there any complementary therapies that will help?
- How will I know if the treatment is working?
- Will chemotherapy affect my sex life and fertility?
- After treatment has finished, will I need check-ups?
- Who should I contact for information or if I have a problem during treatment? Who is my after-hours contact?
You may come across new terms when reading this booklet or talking to health professionals. You can check the meaning of other health-related words at www.cancercouncil.com.au/words or www.cancervic.org.au/glossary.

adjuvant therapy
A treatment given with or shortly after another treatment to enhance its effectiveness.

anaemia
Deficiency in the number or quality of red blood cells in the body.

angiogenesis
The formation of new blood vessels. This enables tumours to develop their own blood supply, which helps them survive and grow.

antibody
Part of the body’s immune system. Antibodies are proteins made by the blood in response to an invader (antigen) in the body. They help protect against viruses, bacteria and other foreign substances.

apoptosis
A type of programmed (normal) cell death. This is the body’s normal way of getting rid of damaged, unneeded or unwanted cells.

benign
Not cancerous or malignant. Benign lumps are not able to spread to other parts of the body.

bone marrow
The soft, spongy material inside bones. Bone marrow contains stem cells that produce red blood cells, white blood cells and platelets.

cannula
A plastic tube inserted into a narrow opening (usually a vein) so that fluids can be introduced or removed.

cells
The basic organisational unit of all living things. A human
is made of billions of cells, which are adapted for different functions.

**central line**
A type of central venous access device used to give direct access to a vein in the chest or neck.

**central venous access device (CVAD)**
A type of thin plastic tube inserted into a vein. The CVAD gives access to a vein so blood or chemotherapy can be given, and blood can be taken. Types of CVADs include central lines, Hickman lines, peripherally inserted central catheters and port-a-caths.

**chemotherapy**
The use of cytotoxic drugs to treat cancer by killing cancer cells or slowing their growth.

**chemotherapy pump**
A portable device that allows a person to receive chemotherapy at home. The pump is usually attached to a central line and carried around a person’s waist in a bag or belt holster.

**cycle**
The time between one chemotherapy treatment session and the next.

**cytotoxic**
A substance (e.g. chemotherapy) that is toxic to cells and kills or slows their growth.

**fertility**
The ability to conceive a child.

**genes**
The tiny units that govern the way the body’s cells grow and behave. Genes are found in every cell of the body and are inherited from both parents.

**granulocyte-colony stimulating factor (G-CSF)**
A protein that helps increase the bone marrow production of certain white blood cells called neutrophils, which fight infection.

**haematologist**
A doctor who specialises in studying and treating diseases
of the blood, bone marrow and lymphatic system.

**Hickman line**
A type of central venous access device inserted into a vein in the chest.

**hormone treatment**
A treatment that blocks the body’s natural hormones that help cancer grow, which is used when the cancer is growing in response to hormones. Also called hormone therapy.

**immunotherapy**
The prevention or treatment of disease using substances that alter the immune system’s response. Types include active and passive therapy. Also called biological therapy.

**infusion**
A slow injection of a substance into a vein or other tissue.

**intravenous (IV)**
Inserted into a vein.

**malignant**
Cancer. Malignant cells can spread (metastasise) and can eventually cause death if they cannot be treated.

**menopause**
When a woman stops having periods (menstruating). This can happen naturally, because of chemotherapy or hormone treatment, or because the ovaries have been removed.

**metastasis**
A cancer that has spread from another part of the body. Also known as secondary cancer.

**neo-adjuvant therapy**
A treatment given before the primary treatment to enhance the primary treatment’s effectiveness.

**neutrophil**
A type of white blood cell that defends the body against bacteria.

**oncologist**
A doctor who specialises in the study and treatment of cancer.
palliative treatment
Medical treatment for people with advanced disease, to help them manage pain and other physical and emotional symptoms.

peripherally inserted central catheter (PICC)
A type of central venous access device that is inserted into a vein in the arm.

platelets
One of three types of cells found in the blood. These help the blood to clot and stop bleeding. Also called thrombocytes.

port-a-cath (port)
A type of central venous access device. A small device inserted under the skin in the chest or arm with a connecting tube inside the body that enters the vein.

primary cancer
The original cancer. Cells from the primary cancer may break away and be carried to other parts of the body, where secondary cancers may form.

radiotherapy
The use of radiation, usually x-rays or gamma rays, to kill cancer cells or injure them so they cannot grow and multiply. Also called radiation therapy.

red blood cells
One of three types of cells found in the blood. They carry oxygen around the body. Also called erythrocytes.

remission
When the symptoms of the cancer reduce or disappear. A partial remission is when there has been a significant improvement in the cancer. A complete remission is when there is no evidence of active cancer.

secondary cancer
A tumour that has spread from the original site to another part of the body. Also called a metastasis.

side effect
Unintended effect of a drug or treatment.
**targeted therapy**
Treatment that attacks specific weaknesses of cancer cells while minimising harm to healthy cells. Two types of targeted therapies are small molecule drugs and immunotherapies.

**tissue**
A collection of cells that make up a part of the body.

**tumour**
A new or abnormal growth of tissue on or in the body. A tumour may be benign or malignant.

**vaccine**
A substance given to stimulate the body’s production of antibodies and provide immunity against a disease.

**vein**
A blood vessel that takes blood towards the heart.

**white blood cells**
One of three types of cells found in the blood. They help fight infection. Types of white blood cells include neutrophils, lymphocytes and monocytes. Also called leucocytes.
# Chemotherapy diary

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Description of symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 May</td>
<td>6am</td>
<td>Woke up with severe pain in my hands</td>
</tr>
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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 Pink Ribbon Day, or hold your own fundraiser or become a volunteer.

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

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

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

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

To find out more about how you, your family and friends can help, please call your local Cancer Council.
Cancer Council Helpline is a telephone information service provided throughout Australia for people affected by cancer.

For the cost of a local call (except from mobiles), you, your family, carers or friends can talk confidentially with oncology health professionals about any concerns you may have. Helpline consultants can send you information and put you in touch with services in your area. They can also assist with practical and emotional support.

You can call Cancer Council Helpline 13 11 20 from anywhere in Australia, Monday to Friday. If calling outside business hours, you can leave a message and your call will be returned the next business day.

Visit your state or territory Cancer Council website

Cancer Council ACT
www.actcancer.org

Cancer Council Northern Territory
www.cancercouncilnt.com.au

Cancer Council NSW
www.cancercouncil.com.au

Cancer Council Queensland
www.cancerqld.org.au

Cancer Council SA
www.cancersa.org.au

Cancer Council Tasmania
www.cancertas.org.au

Cancer Council Victoria
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Cancer Council Western Australia
www.cancerwa.asn.au