



Understanding Skin Cancer

A guide for people with cancer,
their families and friends

Cancer
information

For information & support, call

13 11 20



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Note to reader

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

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



Cancer Council

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

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About this booklet

This booklet has been prepared to help you understand more about the two most common types of skin cancer – basal cell carcinoma (BCC) and squamous cell carcinoma (SCC). These are often called non-melanoma skin cancer or keratinocyte cancers.

Many people feel shocked and upset when told they have skin cancer. We hope this booklet will help you, your family and friends understand how skin cancer is diagnosed and treated. We cannot give advice about the best treatment for you. You need to discuss this with your doctors. However, this information may answer some of your questions and help you think about what to ask your treatment team (see page 36 for a question checklist).

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 37).

How this booklet was developed

This information was developed with help from a range of health professionals and people affected by skin cancer. It is based on Australian clinical practice guidelines.¹⁻²

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).



**Cancer
Council
13 11 20**

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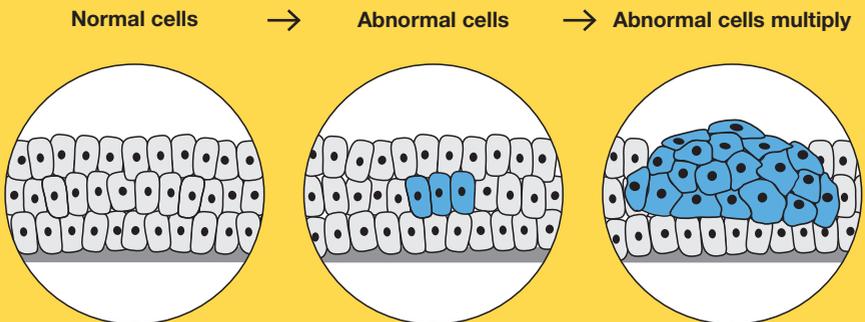
What is cancer?

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 skin 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

How cancer starts

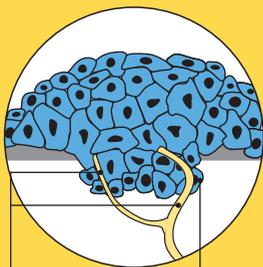


cancer. Cancerous tumours, also known as malignant tumours, have the potential to spread. They may invade nearby tissue, destroying normal cells. The cancer cells can break away and travel through the bloodstream or lymph vessels to other parts of the body.

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, squamous cell carcinoma that has spread from the skin to the lymph nodes is called metastatic squamous cell carcinoma.

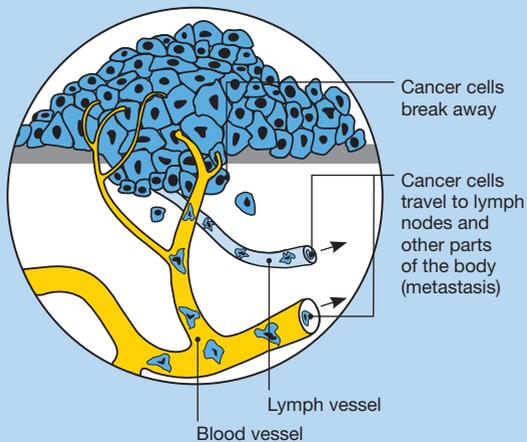
How cancer spreads

→ Malignant cancer



Grows own
blood vessels
(angiogenesis)

Invades
surrounding
tissue





The skin

The skin is the largest organ of the body. It acts as a barrier to protect the body from injury, control body temperature and prevent loss of body fluids. The two main layers of the skin are the epidermis and dermis. Below these is a layer of fatty tissue.

Epidermis

This is the top, outer layer of the skin. It is made up of several cell types:

Squamous cells – These flat cells are packed tightly together to make up the top layer of skin. They form the thickest layer of the epidermis.

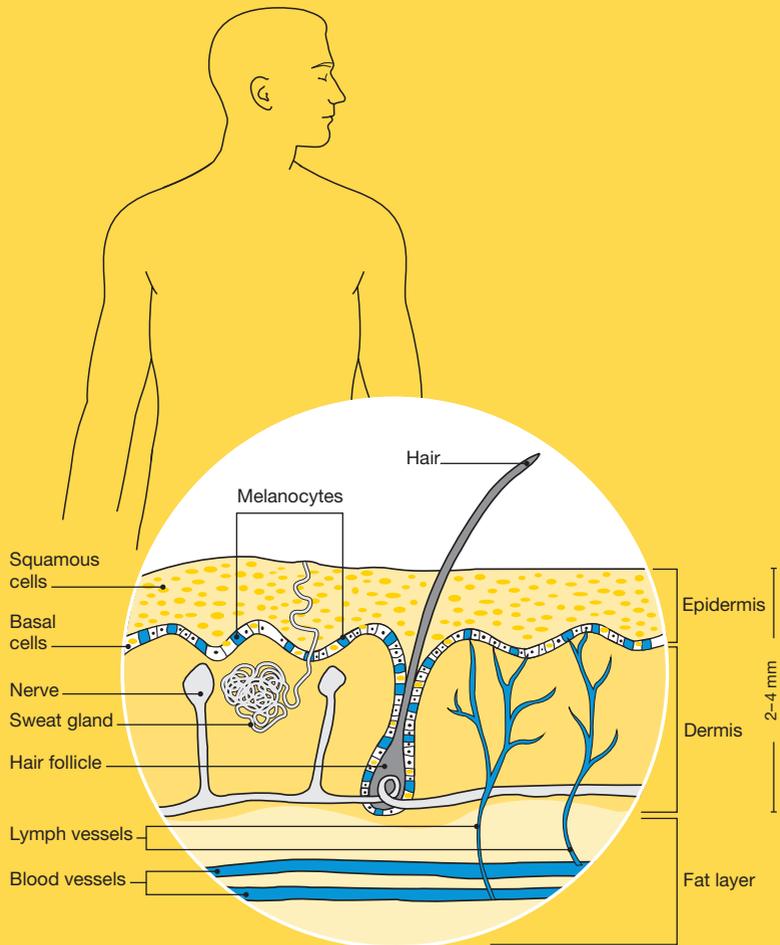
Basal cells – These block-like cells make up the lower layer of the epidermis. The body makes new basal cells all the time. As they age, they move up into the epidermis and flatten out to form squamous cells.

Melanocytes – These cells sit between the basal cells and produce a dark pigment called melanin, the substance that gives skin its colour. When skin is damaged by ultraviolet (UV) radiation, melanocytes make extra melanin. Melanocytes are also found in non-cancerous spots on the skin called moles or naevi (see page 11).

Dermis

This layer of the skin sits below the epidermis. The dermis contains the roots of hairs (follicles), sweat glands, blood vessels, lymph vessels and nerves. All of these are held in place by collagen and elastin, the proteins that give skin its strength and elasticity.

The layers of the skin





Key questions

Q: What is skin cancer?

A: Skin cancer is the uncontrolled growth of abnormal cells in the skin.

Q: What types are there?

A: The three main types of skin cancer are basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and melanoma. BCC and SCC are also called non-melanoma skin cancer or keratinocyte cancers. See page 10 for a list of signs to look for.

Rare types of non-melanoma skin cancer include Merkel cell carcinoma and angiosarcoma. They are treated differently from BCC and SCC. Call Cancer Council 13 11 20 to find out more about rarer skin cancers.

Basal cell carcinoma (BCC) – This starts in the basal cells of the epidermis. It makes up about 70% of non-melanoma skin cancers.

BCC grows slowly over months or years and rarely spreads to other parts of the body. The earlier a BCC is diagnosed, the easier it is to treat. If left untreated, it can grow deeper into the skin and damage nearby tissue, making treatment more difficult.

Having one BCC increases the risk of getting another. It is possible to have more than one BCC at the same time on different parts of the body.

Squamous cell carcinoma (SCC) – This starts in the squamous cells of the epidermis. It makes up about 30% of non-melanoma skin cancers.

SCC tends to grow quickly over several weeks or months. If left untreated, SCC can spread to other parts of the body. This is known as invasive SCC. SCC on the lips and ears is more likely to spread.

Melanoma – This starts in the melanocyte cells of the skin. It makes up 1–2% of all skin cancers.

Although melanoma is a less common type of skin cancer, it is considered the most serious because it grows quickly and is more likely to spread to other parts of the body, such as the lymph nodes, lungs, liver, brain and bones, especially if not found early. The earlier melanoma is found, the more successful treatment is likely to be.

▶ See our *Understanding Melanoma* booklet.

Other type of skin cancer

Squamous cell carcinoma in situ, or Bowen's disease, is an early form of skin cancer that is only in the top layer of the skin (epidermis). It looks like a red, scaly patch and can develop into invasive squamous cell carcinoma if left untreated.

The diagnosis and treatment of squamous cell carcinoma in situ is similar to BCC and SCC.

The signs of skin cancer

Non-melanoma skin cancers		Melanoma
		
BCC	SCC	Melanoma
<ul style="list-style-type: none"> • develops on areas of the body that have more exposure to the sun, such as the head, face, neck, shoulders, lower arms and lower legs, but can occur anywhere on the body • may appear as a pearl-coloured lump or as a slightly scaly area that is shiny and pale or bright pink in colour; some appear darker • may bleed and become inflamed; may appear to heal then become inflamed again 	<ul style="list-style-type: none"> • usually appears on parts of the body most often exposed to the sun, such as the head, neck, hands, forearms and lower legs, but can start anywhere on the body • may bleed and become inflamed, and is often tender to touch • often appears as a thickened, red, scaly or crusted spot or rapidly growing lump • is more common as you get older 	<ul style="list-style-type: none"> • can appear as a new or existing spot on the body that changes size, shape or colour over several weeks to months • often has an irregular edge and either a flat or raised surface • may be more than one colour (brown, black, blue, red, white, light grey, pink or the colour of your skin)

The signs of non-cancerous skin spots

May develop into skin cancer		Harmless
		
Sunspot	Dysplastic naevus	Mole
<ul style="list-style-type: none"> • flat, scaly spot that feels rough; often the colour of your skin or red 	<ul style="list-style-type: none"> • mole with an irregular shape and uneven colour 	<ul style="list-style-type: none"> • brown, black or the same colour as your skin; usually round or oval

Q: What about other skin spots?

A: Some spots that appear on the skin are not cancerous.

Sunspots (actinic or solar keratoses) – Anyone can develop sunspots, but they occur more often in people over 40. They usually appear on skin that's frequently exposed to the sun, such as the head, neck, hands, forearms and legs. Sunspots are a warning sign that the skin has had too much sun exposure, which can increase the risk of developing skin cancer.

Dysplastic naevi – People with many irregular moles (dysplastic naevi) have a greater risk of developing melanoma. The risk increases with the number of moles that a person has.

Moles (naevi) – A mole (naevus) is a normal skin-growth that develops when melanocytes grow in groups. Moles are very common. Some people have many moles on their body – this can run in families. Overexposure to the sun, especially in childhood, can also increase the number of moles. People with large numbers of normal moles can have a higher risk of melanoma.

Q: What causes skin cancer?

A: The main cause of all types of skin cancer is overexposure to UV radiation. Over 95% of skin cancers are caused by UV exposure. When unprotected skin is exposed to UV radiation, the structure and behaviour of the cells can change.

UV radiation is produced by the sun, but it can also come from artificial sources, such as the lights used in solariums (sun beds). Solariums are now banned in Australia for commercial use because research shows that people who use solariums have a high risk of developing skin cancer.

Most parts of Australia have high levels of UV radiation all year round. UV radiation cannot be seen or felt and it is not related to temperature. It can cause:

- sunburn
- premature skin ageing
- damage to skin cells, which can lead to skin cancer.

To better understand how to protect yourself from the sun and prevent skin cancer from occurring, see pages 30–33.

Q: Who is at risk?

A: Anyone can develop skin cancer, but it's more common in older people. The risk is also higher in people who have:

- fair or freckled skin, especially if it burns easily and doesn't tan
- red or fair hair and light-coloured eyes (blue or green)
- had short, intense periods of exposure to UV radiation, e.g. on weekends or holidays or when playing sport, especially if it caused sunburn
- actively tanned or used solariums
- worked outdoors
- a weakened immune system, which could be caused by taking certain medicines after an organ transplant (immunosuppressants) or by ongoing blood conditions such as chronic leukaemia
- lots of moles on their body or moles with an irregular shape and uneven colour (dysplastic naevi, see page 11)
- a previous skin cancer or a family history of skin cancer
- certain skin conditions such as sunspots (see page 11).

People with olive or very dark skin have more protection against UV radiation because their skin produces more melanin than fair skin does. However, they can still develop skin cancer.

Slip, slop, slap, seek and slide during sun protection times to protect your skin from overexposure to the sun and sun damage. See pages 32–33 for more information.



Q: How common is skin cancer?

A: Australia has one of the highest rates of skin cancer in the world. Skin cancer is the most common cancer diagnosed in Australia. About two in three Australians will be diagnosed with some form of skin cancer before the age of 70.³

Almost 980,000 new cases of BCC and SCC are treated each year.⁴ BCC can develop in young people, but it is more common in people over 40. SCC occurs mostly in people over 50.

More than 13,000 people are diagnosed with melanoma in Australia every year.⁵ Australia and New Zealand have the highest rates of melanoma in the world.

Q: How do I spot a skin cancer?

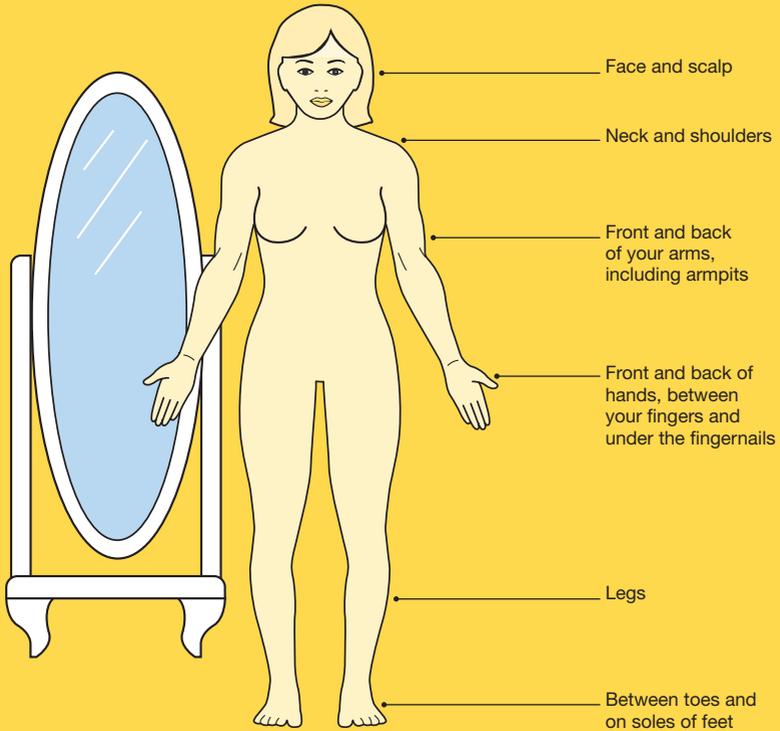
A: Skin cancers don't all look the same, but there are signs to look out for, including:

- a spot that looks and feels different from other spots on your skin
- a spot that has changed size, shape, colour or texture
- a sore that doesn't heal within a few weeks
- a sore that is itchy or bleeds.

There is no set guideline on how often to check for skin cancer, but checking your skin regularly will help you notice any new or changing spots. If you have previously had a skin cancer or are at greater risk of developing skin cancer, ask your doctor how often you should check your skin.

How to check your skin

In a room with good light, undress completely and use a full-length mirror to check your whole body. To check areas that are difficult to see, use a handheld mirror or ask someone to help you.



If you notice any changes to your skin, make an appointment with your general practitioner (GP) or dermatologist straightaway (see next page). You will have a better outcome if the skin cancer is found and treated early. For more information on checking your skin, visit sunsmart.com.au/skin-cancer/checking-for-skin-cancer.



For an overview of what to expect during all stages of your cancer care, visit cancerpathways.org.au/optimal-care-pathways/basal-and-squamous-cell-carcinoma. This is a short guide to what is recommended, from diagnosis to treatment and beyond.

Q: Which health professionals will I see?

A: If you notice any changes to your skin, there are a number of health professionals you can see.

General practitioner (GP) – A GP treats most people with skin cancer. Treatment may include surgery (see pages 23–24) and/or creams or gels (topical treatments, see pages 26–27). You will be referred to a dermatologist or surgeon if necessary.

Dermatologist – This is a specialist doctor who diagnoses and treats skin conditions, including skin cancer. They can perform general and cosmetic surgery and prescribe topical treatments.

Surgeon – Some skin cancers are treated by specialised surgeons:

- surgical oncologists can manage complex skin cancers, including those that have spread to the lymph nodes
- plastic surgeons are trained in complex reconstructive techniques for more difficult to treat areas such as the nose, lips, eyelids and ears.

Radiation oncologist – Treats cancer by prescribing and coordinating the course of radiation therapy.

When you make an appointment to see a dermatologist or surgeon, ask about the cost and how much will be refunded by Medicare. If there is a waiting list and there is a spot on your skin of particular concern, your GP can request an earlier appointment.

Many public hospitals in large cities have dermatology outpatient clinics that provide treatment for free. Your GP can refer you. In areas without a dermatologist, you may be able to see a surgeon or a visiting dermatologist.

Should I go to a skin cancer clinic?

Skin cancer clinics offer a variety of services and fee arrangements. They are usually operated by GPs who have an interest in skin cancer.

Research shows that clinics may not offer a higher level of skill than your GP. In deciding whether to attend a skin clinic, consider the following points:

- **the qualifications and experience of the medical staff** – this includes whether they are members of a professional association related to treating skin cancer
- **what you will have to pay** – some clinics bulk-bill for the initial consultation but require up-front payment for further appointments or surgery (which may not be subsidised by Medicare); others require up-front payment for all appointments
- **the range of services offered**
- **the follow-up provided.**

Cancer Council does not operate or recommend any skin cancer clinics, and does not recommend particular specialists.



Diagnosis

Physical examination

If you notice any changes to your skin, your doctor will examine you, looking carefully at any spots you think are unusual. Using a handheld magnifying instrument called a dermoscope, the doctor will examine the spot more closely.

Skin biopsy

It's not always possible to tell the difference between a skin cancer and a non-cancerous skin spot just by its appearance. If there is any doubt, the doctor may need to take a tissue sample (biopsy) for examination under a microscope. This will help confirm the diagnosis.

A biopsy is a quick and simple procedure that is usually performed in the doctor's office. You will be given a local anaesthetic to numb the area, and the doctor will take a small piece of tissue from the spot. In some cases, the spot is cut out completely in a procedure called an excision. Stitches are used to close the wound and help it heal.



Can smartphone apps help detect skin cancer?

Several smartphone apps allow you to photograph your skin at regular intervals and compare photos to check for changes. While these apps may be a way to keep a record of any spot you are worried about or remind you to check your skin, research shows they cannot reliably detect skin cancer and should not replace a visit to the doctor. If you notice a spot that causes you concern, make an appointment with your GP or dermatologist straightaway.

The tissue that is removed will be sent to a laboratory, where a pathologist will examine it under a microscope. The results will be available in about a week. If all the cancer is removed during the biopsy, this will probably be the only treatment you need.

Staging

The stage of a cancer describes its size and whether it has spread. Unlike other cancer types, BCCs are rarely staged. Some SCCs may require staging. Usually a biopsy is the only information a doctor needs to stage skin cancer. For SCC, the doctor may also feel the lymph nodes near the skin cancer to check for swelling. This may be a sign that the cancer has spread to the lymph nodes. For more information about staging, speak to your doctor.

Prognosis

Prognosis means the expected outcome of a disease. Your treating doctor is the best person to talk to about your prognosis. Most BCCs and SCCs are successfully treated, especially if found early.

While most non-melanoma skin cancers do not pose a serious risk to your health, being told you have cancer can come as a shock and you may feel many different emotions. If you have any concerns or want to talk to someone, see your doctor or call Cancer Council 13 11 20.



Key points about diagnosis

What is skin cancer?

- Australia has one of the highest rates of skin cancer in the world. Over 95% of all skin cancers are caused by UV exposure.
- Common signs include a spot that looks and feels different from others on the skin; a spot that has changed size, shape, colour or texture; a sore that doesn't heal within a few weeks; or a sore that is itchy or bleeds.
- Your GP can treat most skin cancers. If necessary, they can refer you to a specialist, such as a dermatologist, surgical oncologist or plastic surgeon.

Health professionals

- A dermatologist is a specialist doctor trained in preventing, diagnosing and treating skin conditions, including skin cancer.
- A surgical oncologist is trained to perform surgery to treat skin cancer. In some cases, a plastic surgeon may be the treating specialist.
- Some people visit a skin cancer clinic, which is usually operated by a GP with an interest in skin cancer. When choosing a skin cancer clinic, consider the staff's qualifications and experience, the costs, and the services and information offered.

Other tests

- A biopsy can help work out whether the spot is cancerous. Tissue is removed and examined under a microscope. You may have stitches to close up the wound.
- Sometimes a biopsy is the only procedure needed to treat skin cancer.



Making treatment decisions

Skin cancers may be treated by GPs, dermatologists, surgeons and radiation oncologists. For information on these health professionals, see page 16.

Know your options – Be guided by your doctor and weigh up the advantages and disadvantages of different treatments.

Record the details – Many people like to take a relative or friend with them 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 questions. Try to prepare a list before appointments (see page 36 for suggestions).

It's your decision – Adults have the right to accept or refuse any treatment offered by doctors and other health professionals.

Get support – If you have a partner, you may want to discuss the treatment options with them. Talking to friends and family, or to other people who have had similar experiences, may also be helpful. Call Cancer Council 13 11 20 to find out ways to connect with others for mutual support.



To find a dermatologist near you, visit the Australasian College of Dermatologists website at dermcoll.edu.au/find-a-derm.

A second opinion – You may want to get a second opinion from another doctor to confirm or clarify your doctor’s recommendations, or to reassure you that you have explored all of your options. Doctors are used to people doing this.

Your doctor can refer you to another doctor 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 doctor who provided the second opinion.

Should I join a clinical trial?

Your doctor or nurse may suggest you take part in a clinical trial.

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

and led to better outcomes for people diagnosed with cancer.

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

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

Treatment

Skin cancer is treated in different ways. Treatment depends on:

- the type, size and location of the cancer
- your general health
- any medicines you are taking (these can affect the amount of bleeding and the healing time)
- whether the cancer has spread to other parts of your body.

If the biopsy has removed all the cancer (see *Skin biopsy*, page 18), you may not need any further treatment.

Many of the treatments described in this chapter are suitable for sunspots as well as skin cancers. Some sunspots may need treatment if they are causing symptoms or to prevent them becoming cancers.

Surgery

Surgery is the most common treatment for skin cancer. The type of procedure you have will depend on the size and position of the cancer.

Most small skin cancers are removed by a GP or a dermatologist. A surgeon may treat more complex cases.

The doctor will inject a local anaesthetic to numb the affected area, then cut out the skin cancer and some nearby normal-looking tissue (margin). A pathologist checks the margin for cancer cells to make sure the cancer has been completely removed. The results will be available in about a week. If cancer cells are found at the margin, you may need further surgery or radiation therapy.

Mohs surgery

Mohs surgery, or microscopically controlled excision, is usually done under local anaesthetic by a dermatologist.

It is used to treat skin cancers that have begun to spread deep into the skin or come back (recurred). It can also be used for cancers in areas that are hard to treat, such as near the eye or on the nose, lips and ears.

This procedure is done in stages. The doctor removes the cancer little by little and checks each section of tissue under a microscope. They keep removing tissue until they see only healthy tissue under the microscope, and then close the wound with stitches or, sometimes, a skin flap or graft (see below). Mohs surgery reduces the amount of healthy skin that is removed while making sure all the cancer is taken out.

Mohs surgery costs more than other types of surgery. Special equipment is needed so it's available only at some hospitals or clinics.

Repairing the wound

If you have a large skin cancer removed, the wound is covered with a skin flap or skin graft.

For a skin flap, nearby loose skin or fatty tissue is moved over the wound and stitched. For a skin graft, a thin piece of skin is removed from another part of the body and stitched over the wound. These procedures may be performed in the doctor's office but are sometimes done as day surgery in hospital under a local or general anaesthetic.

Curettage and electrodesiccation

Curettage and electrodesiccation (or cautery) is used to treat some BCCs and squamous cell carcinoma in situ (Bowen's disease). It is usually done by a dermatologist.

The doctor will give you a local anaesthetic and then scoop out the cancer using a small, sharp, spoon-shaped instrument called a curette. Low-level heat (electrodesiccation or cautery) will be applied to stop the bleeding and destroy any remaining cancer. The wound should heal within a few weeks, leaving a small, flat, round, white scar.

Cryotherapy

Cryotherapy, or cryosurgery, is a procedure that uses extreme cold (liquid nitrogen) to remove sunspots and some small BCCs.

The doctor, usually a dermatologist, sprays liquid nitrogen onto the sunspot or skin cancer and a small area of skin around it. You may feel a burning or stinging sensation, which lasts a few minutes. The liquid nitrogen freezes and kills the abnormal skin cells and creates a wound. In some cases, the procedure may need to be repeated.

The treated area will be sore and red. A blister may form within a day. A few days later, a crust will form on the wound. The dead tissue will fall off after 1–4 weeks, depending on the area treated.

New, healthy skin cells will grow and a scar may develop. The area will heal in a few weeks, and the healed skin will probably look paler than the surrounding skin.

Topical treatments

Some skin spots and cancers can be treated with creams or gels that you apply to the skin. These are called topical treatments. They may contain immunotherapy or chemotherapy drugs, and are prescribed by a doctor. You should use these treatments only on the specific spots or areas that your doctor has asked you to treat. Don't use leftover cream to treat new spots that have not been assessed by your doctor.

Immunotherapy cream

A cream called imiquimod is a type of immunotherapy that causes the body's immune system to destroy cancer cells.

It is used to treat sunspots, superficial BCCs and squamous cell carcinoma in situ (Bowen's disease). You apply imiquimod directly to the affected area every night, usually five days a week for six weeks.

Within days of starting imiquimod, the treated skin may become red, sore and tender to touch. The skin may peel and scab over before it gets better. Some people have pain or itching in the affected area, fever, achy joints, headache and a rash. If you experience any of these more serious side effects, stop using the cream and see your doctor immediately.

Chemotherapy cream

5-fluorouracil (5-FU) – This cream is a type of chemotherapy drug. It is used to treat superficial BCCs, sunspots and, sometimes, squamous cell carcinoma in situ (Bowen's disease).

5-FU works best on the face and scalp. Your GP or dermatologist will explain how to apply the cream and how often. Many people use it

twice a day for 2–3 weeks. It may need to be used for longer for some skin cancers. While using the cream, you will be more sensitive to UV radiation and will need to stay out of the sun. The treated skin may become red, blister, peel and crack, and feel uncomfortable. These effects will usually settle within a few weeks of treatment finishing.

Ingenol mebutate – This gel is applied to the affected sunspots once a day for two to three days. Side effects can include skin reddening, flaking or scaling, mild swelling, crusting or scabbing, and blisters. These side effects should disappear within a couple of weeks of treatment finishing.

Photodynamic therapy

Photodynamic therapy (PDT) uses a cream and a light source to make the cancer sensitive to light. It is used to treat sunspots, superficial BCCs and squamous cell carcinoma in situ (Bowen's disease).

First the GP or dermatologist gently scrapes the area with a curette to remove any dry skin or crusting. Then the light-sensitive cream is applied, and after three hours a special light is shined onto the area for about eight minutes. The area is covered with a bandage. For skin cancers, PDT is usually repeated after a week.

Side effects can include redness and swelling, which usually ease after a few days. PDT commonly causes a burning, stinging or tender feeling in the treatment area, particularly to the face. Your doctor may treat you with a cold water spray or pack, or give you a local anaesthetic to help ease any discomfort.

Radiation therapy

Radiation therapy (also called radiotherapy) uses radiation such as x-rays or electron beams to damage or kill cancer cells. It is used for BCC or SCC in areas that are difficult to treat with surgery, such as the face. Sometimes it is also used after surgery to prevent the cancer from coming back or spreading.

You will lie on a table while the radiation therapy machine is positioned around you. This can take 10–30 minutes, but the treatment itself will take only a few minutes. The number of treatments you have depends on the type of skin cancer, where it is and how big it is. Radiation therapy is usually given five times a week for several weeks.

Skin in the treatment area may become red and sore 2–3 weeks after treatment starts. This redness and soreness may last for a few weeks after treatment has finished.

› See our *Understanding Radiation Therapy* booklet.

Removing lymph nodes

If the cancer has spread, the doctor may recommend removing the lymph nodes in an operation called a lymph node dissection. This helps reduce the chance of the cancer spreading to other parts of the body or coming back. For more information, speak to your doctor.



Key points about treatment

Main treatment

- Surgery is the most common treatment for skin cancer.

How surgery is done

- The doctor will cut out the cancer and close the wound with stitches. For larger wounds, the doctor may use skin from another part of the body (flap or graft) to cover the wound.
- During Mohs surgery, also known as microscopically controlled excision, the surgeon removes layers of cells and checks them under a microscope immediately.
- Curettage and electrodesiccation (cautery) is when the doctor removes the cancer with a sharp tool called a curette. Heat is then applied to stop the bleeding and destroy any remaining cancer cells.

Other treatments

- Cryotherapy is used to treat sunspots and some skin cancers. The doctor will spray liquid nitrogen onto the skin to freeze and destroy the cancer cells.
- Creams, lotions and gels are used to treat some sunspots and cancers. This is known as topical treatment.
- Photodynamic therapy uses a cream and a light source to treat sunspots and some skin cancers.
- Radiation therapy can be used in areas that are difficult to treat. It can also be used to reduce the chance of the cancer coming back.



Looking after yourself

Will I get other skin cancers?

After treatment, you will need regular check-ups to confirm the cancer hasn't come back and to look for new skin cancers. People who've had skin cancer have a higher risk of developing more skin cancers.

It's important to prevent further damage to your skin. For ways to make sun protection a part of your lifestyle, see pages 32–33. It's also important to check your skin regularly and visit your doctor every year for a full-body skin check. Using a sunscreen on the face each day can reduce sunspots by an average of 30–40%.

The UV Index and sun protection times

Most skin cancers are caused by exposure to the sun's UV radiation. Using sun protection during peak periods will reduce your risk of skin cancer.

The UV Index measures the sun's UV radiation using a scale that begins at 0 and has no upper limit. An index of 3 or above indicates that UV levels are high enough to damage skin, and sun protection is needed.

The daily sun protection times tell you the times of day the UV Index levels are expected to be 3 or higher. The times will vary according to where you live and will change throughout the year. In general, during the summer months in Australia, all states and territories experience long periods during the day when the UV Index is 3 or above. In the late autumn and winter months in southern Australia, the UV Index may fall below 3 and sun protection is not necessary (unless you are outdoors for long periods or at high altitude).

You can check the sun protection times on the weather page of Australian daily newspapers, the Bureau of Meteorology website at bom.gov.au or the SunSmart website at sunsmart.com.au, by downloading the free SunSmart app for Apple and Android devices.

Sun exposure and vitamin D

UV radiation from the sun causes skin cancer, but it is also the best natural source of vitamin D. People need vitamin D to develop and maintain strong, healthy bones.

The amount of sunlight you need for vitamin D depends on several factors, including the UV level, your skin type and your lifestyle. UV levels vary across Australia, so the time you need to spend in the sun will be determined by where you live, the season and time of day, cloud coverage and the environment. (For more information on the UV Index, see opposite.) Using sun protection when UV is 3 or above doesn't put most Australians at risk of vitamin D deficiency.

The body can absorb only a limited amount of vitamin D at a time. Getting more sun than recommended does not increase your vitamin D levels, but it does increase your skin cancer risk. For most people, just 15–20 minutes of incidental sun exposure, such as walking from the office to get lunch or hanging out the washing, is enough to produce the required vitamin D levels.

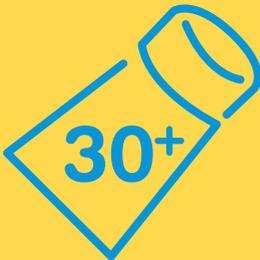
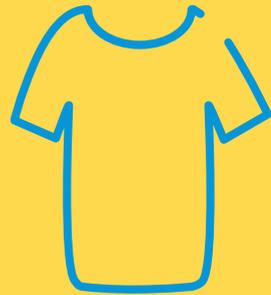
After a diagnosis of skin cancer, talk to your doctor about the best ways to maintain vitamin D levels while reducing your risk of developing more skin cancers.

Protecting your skin from the sun

When UV levels are 3 or above, use several of these measures to protect your skin.

Slip on clothing

Wear clothing that covers your shoulders, neck, arms, legs and body. Choose closely woven fabric or fabric with a high UV protection factor rating in a dark colour.

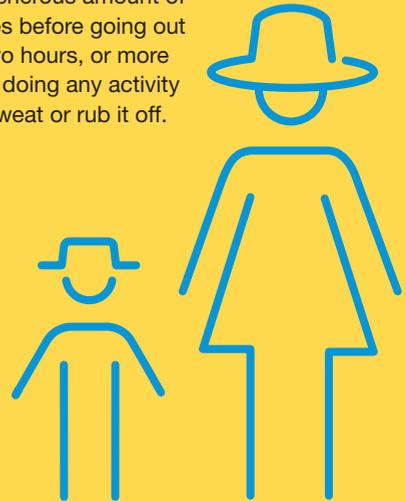


Slop on sunscreen

Use an SPF 30+ or higher broad-spectrum, water-resistant sunscreen every day. Apply a generous amount of sunscreen 20 minutes before going out and reapply every two hours, or more often if swimming or doing any activity that causes you to sweat or rub it off.

Slap on a hat

Wear a broad-brimmed hat that shades your face, neck and ears. Adult hats should have at least a 7.5 cm brim. Hats for children aged under 8 years should have at least a 5 cm brim, and hats for children aged 8–12 should have at least a 6 cm brim.



Seek shade

Use shade from trees, umbrellas, buildings or any type of canopy. UV radiation is reflective and bounces off surfaces, such as concrete, water, sand and snow. If you can see the sky, even if the direct sun is blocked, the shade will not completely protect you from UV.



Slide on sunglasses

Protect your eyes with sunglasses that meet the Australian Standard AS/NZS 1067. Wraparound styles are best. Sunglasses should be worn all year round to protect both the eyes and the delicate skin around the eyes.

Avoid sun lamps and solariums

Do not use sun lamps, solariums or tanning beds (banned for commercial use), which give off artificial UV radiation.



Check sun protection times every day

Use the SunSmart UV Alert to check daily sun protection times in your local area. It is available as an app, online (sunsmart.com.au or bom.gov.au/uv), in the weather section of daily newspapers, or as a free website widget.





Seeking support

Changes to your appearance

Skin cancer treatments such as surgery, curettage and electrodesiccation, and cryotherapy often leave a scar. In most cases, your doctor will do everything they can to make the scar less noticeable. Most scars will fade with time.

You may worry about how the scar looks, especially if it's on your face. Various cosmetics are available to help cover scarring. Your hairstyle or clothing might also cover the scar. You may want to talk to a counsellor, friend or family member about how you are feeling after any changes to your appearance.

Look Good Feel Better

Look Good Feel Better is a national program that helps people manage the appearance-related effects of cancer treatment. Workshops are run for men, women and teenagers. For information about services in your area, visit lgfb.org.au or call 1800 650 960.

Financial help

Skin cancer may cause financial difficulties, particularly for people who have to travel for treatment.

Financial assistance may help pay for prescription medicines and transport costs to medical appointments. Services may be different in each state and territory. For information about services in your local area and whether you are eligible to receive them, call Cancer Council 13 11 20, or if you are treated in hospital, ask the social worker.

➤ See our *Cancer and Your Finances* booklet.

Useful websites

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

Australian	
Cancer Council Australia	cancer.org.au
Cancer Australia	canceraustralia.gov.au
Cancer Council Online Community	cancercouncil.com.au/OC
Healthdirect Australia	healthdirect.gov.au
SunSmart	sunsmart.com.au
The Australasian College of Dermatologists	dermcoll.edu.au
About UV and sun protection times (Bureau of Meteorology)	bom.gov.au/uv
My UV (SunSmart Cancer Council WA)	myuv.com.au
Melanoma Institute of Australia	melanoma.org.au
Basal and squamous cell carcinoma – what to expect (Optimal care pathway)	cancerpathways.org.au/optimal-care-pathways/basal-and-squamous-cell-carcinoma
International	
American Cancer Society	cancer.org
Cancer Research UK	cancerresearchuk.org
Macmillan Cancer Support (UK)	macmillan.org.uk
National Cancer Institute (US)	cancer.gov
Skin Cancer Foundation (US)	skincancer.org



Question checklist

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

Diagnosis

- What is this spot on my skin?
- Will I need a biopsy?
- What is my biopsy result? Do I have skin cancer?
- What type of skin cancer is it?
- Did the biopsy remove all of the skin cancer?

Treatment

- Do I need further treatment? If so, what treatment do you recommend?
- Do I need to see a specialist?
- I'm thinking of getting a second opinion. Can you recommend anyone?
- If I don't have the treatment, what should I expect?
- How much will the treatment cost?

Side effects

- Will there be any scarring after the skin cancer has been removed?
- When will I get my results and who will tell me?

After treatment

- Is this skin cancer likely to come back?
- How often should I get my skin checked?
- Where can I go for follow-up skin checks?
- Will I need any further tests after treatment is finished?



Glossary

actinic keratosis (plural: keratoses)

See sunspot.

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.

basal cell

One of the three main types of cells that make up the epidermis of the skin.

basal cell carcinoma (BCC)

A type of skin cancer that develops in the basal cells of the epidermis.

benign

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

biopsy

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

Bowen's disease

See squamous cell carcinoma in situ.

cautery

See electrodesiccation.

cells

The basic building blocks of the body. A human is made of billions of cells that are adapted for different functions.

chemotherapy

A cancer treatment that uses drugs to kill cancer cells or slow their growth.

clinical trial

A research study that tests new approaches to prevention, screening, diagnosis or treatment, to see if they are better than current approaches.

cryotherapy

The process of freezing and destroying cancer cells. Also called cryosurgery.

curettage

The surgical removal of skin cancer using a small, spoon-shaped instrument with a sharp edge called a curette.

dermatologist

A doctor who specialises in the prevention, diagnosis and treatment of skin conditions, including skin cancer and non-cancerous skin spots.

dermis

The lower layer of the two main layers that make up the skin.

dysplastic naevus (plural: naevi)

A mole with an irregular shape and uneven colour.

electrodesiccation

A technique that uses heat to stop bleeding after curettage.

Also called cautery.

epidermis

The top, outer layer of the two main layers that make up the skin.

excision biopsy

A type of biopsy where an area of abnormal tissue is surgically removed (excised) so it can be looked at under a microscope to help diagnose a disease.

immunotherapy

Treatment that stimulates the body's immune system to fight cancer.

keratinocyte cancer

See non-melanoma skin cancer.

liquid nitrogen

A substance that is applied to the skin to freeze and kill abnormal skin cells.

lymphatic system

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

lymph nodes

Small, bean-shaped structures that collect and destroy bacteria and viruses. Also called lymph glands.

malignant

Cancerous. Malignant cells can spread (metastasis).

melanin

Dark pigment produced in melanocytes that gives skin its colour.

melanocyte

One of the three main types of cells that make up the skin's epidermis. Melanocytes produce melanin.

melanoma

Cancer of the melanocytes.

Merkel cell

A type of cell located in the epidermis.

metastasis

A cancer that has spread from a primary cancer to another part of the body. Also known as secondary cancer.

Mohs surgery

Specialised surgery to remove skin cancers one segment at a time until only healthy cells remain. Also called microscopically controlled excision.

mole

See naevus.

naevus (plural: naevi)

A small, dark spot on the skin that arises from skin cells called melanocytes. Also called a mole.

nodule

A swelling or lump that may be cancerous or non-cancerous.

non-melanoma skin cancer

Also known as keratinocyte skin cancer.

pathologist

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

photodynamic therapy (PDT)

A type of cancer treatment using a cream that is activated by a light.

plastic surgeon

A specialist doctor who has trained in complex aesthetic (appearance) and reconstructive techniques and surgery for more advanced skin cancer.

prognosis

The expected outcome of a disease.

radiation therapy

The use of targeted radiation to kill or damage cancer cells or injure them so they cannot grow, multiply or spread. The radiation is usually in the form of x-ray or electron beams. Also called radiotherapy.

skin flap

Nearby skin or fatty tissue that is pulled over the wound left by the removal of a skin cancer and stitched.

skin graft

A layer of skin removed from another part of the body that is stitched over the wound left by the removal of a skin cancer.

solar keratosis (plural: keratoses)

See sunspot.

squamous cell

One of the three main types of cells that make up the skin's epidermis.

squamous cell carcinoma (SCC)

A type of skin cancer that begins in the squamous cells of the epidermis.

squamous cell carcinoma in situ

An early form of skin cancer that looks like a red, scaly patch on the skin. Also called Bowen's disease.

sunspot

A red, scaly spot on the skin that is a sign of sun damage. Also called actinic or solar keratosis.

superficial skin cancer

Cancer that only affects cells on the surface of the epidermis.

surgical oncologist

A doctor who specialises in the surgical treatment of cancer.

topical treatment

Treatment that is applied to an area of the skin as a cream or gel.

tumour

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

ultraviolet (UV) radiation

The part of sunlight that causes tanning, sunburn and skin damage. It is also produced by solariums, sun lamps and tanning beds. UV radiation cannot be seen or felt.

UV Index

An internationally standard measure of the intensity of the sun's ultraviolet radiation.

Can't find a word here?

For more cancer-related words, visit:

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

References

1. Cancer Council Australia Keratinocyte Cancers Guideline Working Party, *Clinical practice guidelines for keratinocyte cancer*, Sydney, Cancer Council Australia, 2019. Available from: wiki.cancer.org.au/australia/Guidelines:Keratinocyte_carcinoma.
2. Victorian Department of Health and Human Services, *Optimal care pathway for people with basal cell carcinoma or squamous cell carcinoma*, Victorian Government, Melbourne, 2015.
3. Australian Institute of Health and Welfare (AIHW), *Skin cancer in Australia*, AIHW, Canberra, 2016.
4. M Fransen et al., "Non-melanoma skin cancer in Australia", *Medical Journal of Australia*, vol. 197, no. 10, 2012, pp. 565–68.
5. Australian Institute of Health and Welfare (AIHW), *Cancer in Australia 2019*, AIHW, Canberra, 2019.



How you can help

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

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

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

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

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

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

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



Cancer Council

13 11 20

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

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

Calling 13 11 20 gives you access to trustworthy information that is relevant to you. Our 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.

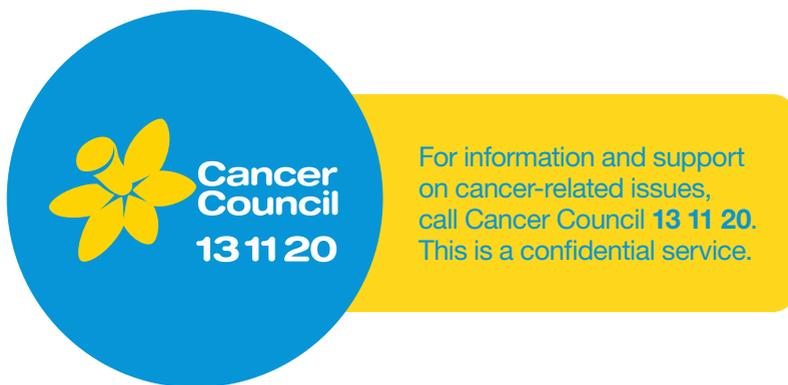
If you are finding it hard to navigate through the health care system, or just need someone to listen to your immediate concerns, call 13 11 20 and find out how we can support you, your family and friends.

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



Visit your local Cancer Council website

Cancer Council ACT
actcancer.org

Cancer Council NSW
cancercouncil.com.au

Cancer Council NT
nt.cancer.org.au

Cancer Council Queensland
cancerqld.org.au

Cancer Council SA
cancersa.org.au

Cancer Council Tasmania
cancertas.org.au

Cancer Council Victoria
cancervic.org.au

Cancer Council WA
cancerwa.asn.au

Cancer Council Australia
cancer.org.au

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