

Understanding Skin Cancer

A guide for people with cancer, their families and friends



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

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

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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.



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



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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 skin cancers are often called non-melanoma skin cancer or keratinocyte cancer. For information about melanoma, see our *Understanding Melanoma* booklet.

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 early 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). You may also like to pass this booklet to family and friends for their information.

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



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

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Key to icons

Icons are used throughout this booklet to indicate:



More information



Tips

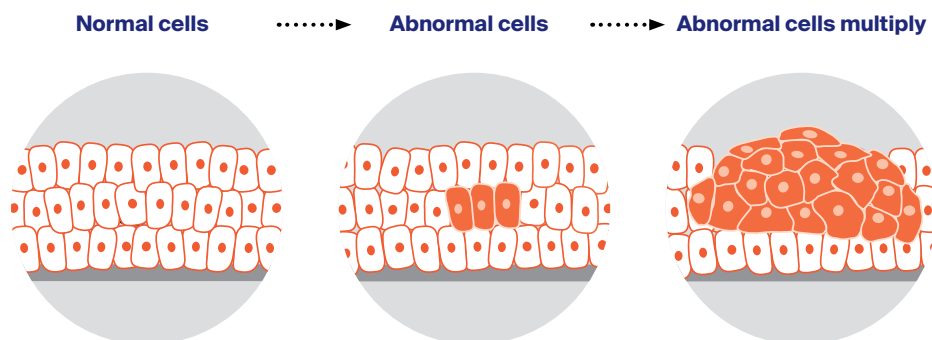
What is cancer?

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

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

In solid cancers, such as 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.

How cancer starts

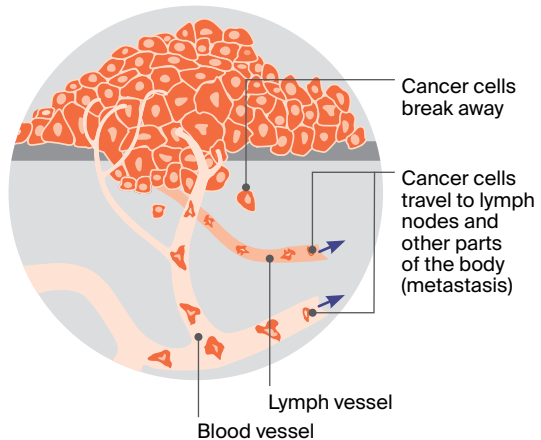


Not all tumours are cancer. Benign tumours tend to grow slowly and usually don't move into other parts of the body or turn into cancer. Cancerous tumours, also known as malignant tumours, have the potential to spread. They may invade nearby tissue, destroying normal cells. The cancer cells can break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

The cancer that first develops 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



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.

Epidermis

The epidermis is the top, outer layer of the skin. It contains three main types of cells:

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.

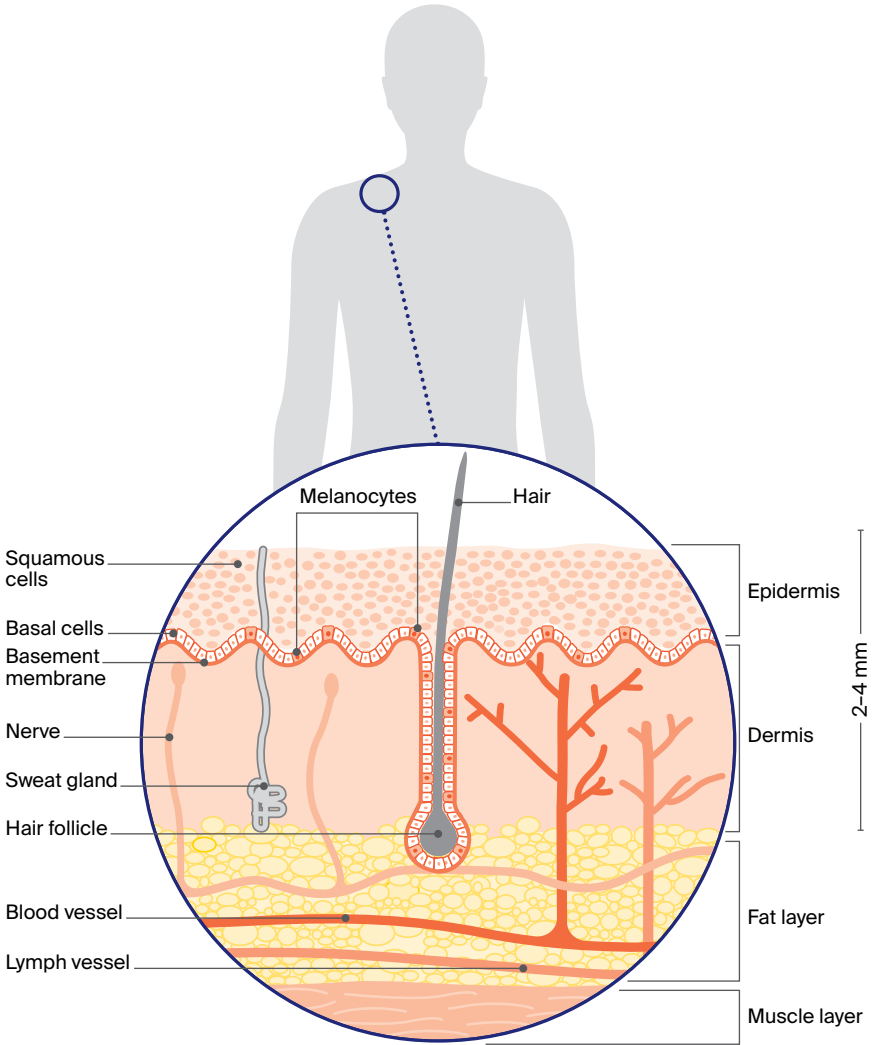
Basal cells – These block-like cells make up the lower layer of the epidermis. The body makes new basal cells all the time. As they age, they move up into the epidermis and flatten out to form squamous cells. The basal cells sit on a very thin layer of tissue (the basement membrane) that separates the epidermis from the rest of the body.

Melanocytes – These cells sit between the basal cells and produce a dark pigment called melanin that gives skin its colour. When skin is exposed to ultraviolet (UV) radiation, melanocytes make melanin to try to protect the skin from getting burnt. Melanocytes are also found in non-cancerous spots on the skin called moles or naevi (see page 10).

Dermis

This layer of the skin sits below the epidermis. The dermis is made up of fibrous tissue and 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 cancer. They are far more common than melanoma.

Basal cell carcinoma (BCC) – the most common type (about 66% of skin cancers), starts in the basal cells of the skin.

BCC usually grows slowly over months or years and only rarely spreads to other parts of the body. If left untreated, some BCCs can grow deeper into the skin, invade nerves and damage nearby tissue, making treatment more difficult. Having one BCC increases the risk of getting another. There can be more than one BCC at the same time on different parts of the body.

Information about melanoma

Melanoma starts in the melanocyte cells and makes up 1–2% of all skin cancers. It is the most serious form of skin cancer because it is more likely to spread to other parts of the

body, especially if not found and treated early. This booklet is about non-melanoma skin cancers.

► See our *Understanding Melanoma* booklet for more information.

Squamous cell carcinoma (SCC) – the second most common type (about 33% of skin cancers), starts in the squamous cells of the skin.

SCCs can grow quickly over several weeks or months. Some are found only in the top layer of the skin. These are called SCC in situ, intra-epidermal carcinoma or Bowen's disease. If SCC invades through the basement membrane (see pages 6-7) it is called invasive SCC. If left untreated, this can spread to other parts of the body (metastatic SCC). SCC on the lips and ears is more likely to spread.

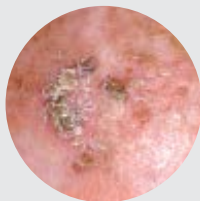
What are the signs of non-melanoma skin cancer?

Basal cell carcinoma (BCC)



- develops on areas that get more sun exposure, such as the head, face, neck, shoulders, lower arms and legs, but can occur anywhere on the body
- may appear as a pearl-coloured lump or slightly scaly area that is shiny and pale or bright pink; some appear darker
- the skin may break down (ulcerate), bleed and become inflamed; may appear to heal then become inflamed again

Squamous cell carcinoma (SCC)



- 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
- often appears as a thickened, red, scaly or crusted spot or rapidly growing lump
- may bleed and become inflamed, and is often tender to touch



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 for more information.

Q: What about other skin spots?

A: Some spots that appear on the skin are not cancerous. If you are concerned about any mark or growth on your skin, see your general practitioner (GP).

Sunspots (actinic or solar keratoses) – Sunspots occur more often in people over 40, but anyone can develop them. 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. Very rarely sunspots may develop into SCC.

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.

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

Age spots (seborrhoeic keratoses) – These very common skin growths can occur anywhere except the palms and soles. They may look similar to a skin cancer or sunspot. They may be itchy and may bleed if scratched.

The signs of non-cancerous skin spots

Sunspot



- flat, scaly spot that feels rough; often the colour of your skin or red
- can be easily scratched off but will return in a few days
- may develop into skin cancer

Mole



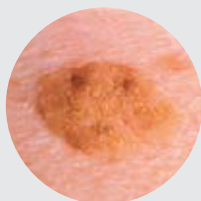
- brown, black or the same colour as your skin; usually round or oval
- harmless

Dysplastic naevus



- mole with an irregular shape and uneven colour
- may develop into skin cancer

Age spot



- raised warty area on the skin that feels rough
- light to very dark brown in colour
- harmless

Q: What causes skin cancer?

A: Over 95% of skin cancers are caused by exposure to UV radiation. When unprotected skin is exposed to UV radiation, how the cells look and behave can change.

UV radiation most often comes from the sun, but it can also come from artificial sources, such as arc welders, glue curing lights (e.g. for artificial nails) and solariums (also known as tanning beds or sun lamps). Solariums are now banned for commercial use in Australia because research shows that people who use solariums have a much greater risk of developing skin cancer.

Most parts of Australia have high levels of UV radiation from the sun all year round. UV radiation cannot be seen or felt and it is not related to temperature. It can cause sunburn; premature skin ageing; and damage to skin cells, which can lead to skin cancer.

You can't always see sun damage to the skin – it can start long before you get sunburnt or develop a tan, and the damage adds up over time. To better understand how to protect your skin from the sun and prevent skin cancer, see pages 32–33.

Q: Who is at risk?

A: Anyone can develop skin cancer but it's more common as you age. Many factors can increase your risk of skin cancer, including having:

- pale or freckled skin, especially if it burns easily and doesn't tan
- red or fair hair and light-coloured eyes (blue or green)
- unprotected exposure to UV radiation, particularly a pattern of short, intense periods of sun exposure and sunburn, such as on weekends and holidays

- actively tanned or used solariums
- worked outdoors or been exposed to arsenic
- a weakened immune system – this may be from having leukaemia or lymphoma or using immunosuppressive medicines (e.g. for rheumatoid arthritis, another autoimmune disease or for an organ transplant)
- lots of moles, or moles with an irregular shape and uneven colour (dysplastic naevi, see pages 10–11)
- a previous skin cancer or a family history of skin cancer
- certain skin conditions such as sunspots (see pages 10–11).

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.

Q: How common is skin cancer?

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

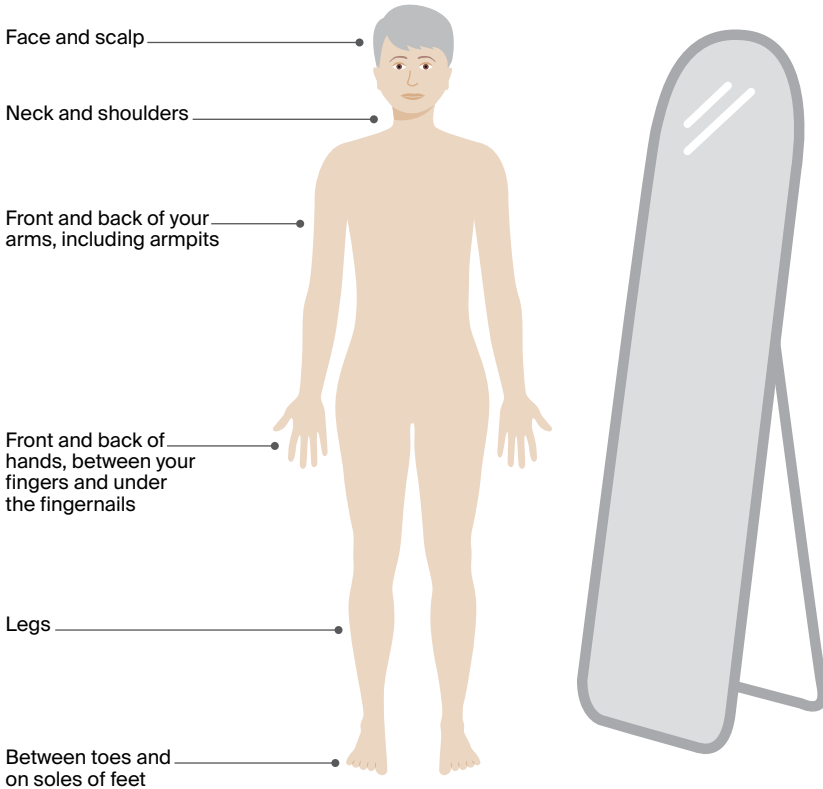
Non-melanoma skin cancer is the most common cancer diagnosed in Australia. Over one million treatments are given each year in Australia for non-melanoma skin cancers.⁴ BCC can develop in young people, but it is more common in people over 40. SCC occurs mostly in people over 50.



For an overview of what to expect at every stage of your cancer care, visit cancer.org.au/cancercareguides/basal-and-squamous-cell-carcinoma. This is a short guide to what is recommended, from diagnosis to treatment and beyond.

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 GP or dermatologist straightaway (see opposite 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.

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.

Check your skin for changes regularly. There is no set guideline on how often to check for skin cancer, but getting to know your own skin 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.

Q: Which health professionals will I see?

A: If you notice any changes to your skin, you may see one or more of the following doctors:

General practitioner (GP) – GPs treat most people with BCCs and SCCs. Treatment may include surgery (see pages 22–24) and/or creams or gels (topical treatments, see pages 25–26). You may be referred to a dermatologist, surgeon or radiation oncologist for larger areas of abnormal tissue or cancers that are hard to remove.

Dermatologist – A specialist doctor who diagnoses and treats skin conditions, including skin cancer. They can perform general and cosmetic surgery and prescribe topical treatments (see pages 25–26).

Radiation oncologist – A specialist doctor who treats some skin cancers by prescribing and overseeing a course of radiation therapy.

Surgeon – Some skin cancers are treated by specialised surgeons:

- surgical oncologists specialise in treating cancer with surgery; they 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, e.g. the nose, lips, eyelids and ears.

When you make an appointment to see a specialist, ask what you will have to pay and how much will be refunded by Medicare.

If there is a waiting list and there is a spot on your skin you are worried about, your GP can ask for an earlier appointment.

Many public hospitals have specialist outpatient clinics that provide free skin cancer treatment. Your GP can refer you. In areas without a permanent clinic, you may be able to see a visiting specialist.

Should I go to a skin cancer clinic?

Skin cancer clinics offer a variety of services and fee arrangements. They are usually run 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 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 and whether it is covered by Medicare – some clinics bulk-bill the first consultation but require up-front payment for other appointments or surgery; others require up-front payment for all services
- the range of services offered
- the follow-up provided.

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

Diagnosis

Physical examination

If you notice any changes to your skin, your doctor will look carefully at your skin and examine any spots you think are unusual. The doctor may use a handheld magnifying instrument called a dermoscope to examine the spots more closely.

Skin biopsy

If the doctor feels they can diagnose the skin cancer by examining the spot, you may not need any further tests before having treatment (see pages 22–29). However, it's not always possible to tell the difference between a skin cancer and a non-cancerous skin spot just by looking at it. If there is any doubt, the doctor may need to take a tissue sample (biopsy) to confirm the diagnosis.

A biopsy is a quick and simple procedure that is usually done in the doctor's office. You will be given a local anaesthetic to numb the area, then the doctor will either:

- completely cut out the spot and a small amount of healthy tissue around it (excision biopsy)
- take a small piece of tissue from the spot (punch or incision biopsy).

Stitches may be used to close a larger wound and help it heal. All tissue that is removed is 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 and a margin of healthy tissue (see page 22) are removed during the biopsy, this may be the only treatment you need.

Can smartphone apps help detect skin cancer?

Some smartphone apps let you photograph your skin at regular intervals and compare the photos to check for changes. These apps may be a way to record any spot you are worried about or remind you to check your skin.

However, research shows apps cannot reliably detect skin cancer and should not replace a visit to your GP or dermatologist. If you notice a spot that causes you concern, make an appointment with your doctor straightaway.

Staging

The stage of a cancer describes its size and whether it has spread. BCCs rarely need staging because they don't often spread or have other high-risk features. Only a very small number of SCCs require staging. This may be because of where the SCC is, its size or because it has spread.

Usually a biopsy is the only information a doctor needs to stage skin cancer. 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. Rarely, some people will have imaging scans to help with staging. 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 when found early.

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 diagnosing skin cancer

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 from the sun.
- 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, plastic surgeon or radiation oncologist.

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.
- A radiation oncologist is a specialist doctor trained to use radiation to treat cancer, including skin cancer.
- Some people visit a skin cancer clinic. When choosing a clinic, consider the staff's qualifications and experience, the costs, and the services offered.

Main tests

- Your doctor will examine your skin and any unusual spots. They may use a magnifying instrument called a dermoscope to look at the spots more closely.
 - Sometimes a biopsy is used to work out if the spot is cancerous. Tissue is removed and examined under a microscope. You may have stitches to close up the wound.
 - An excision biopsy may be the only procedure needed to remove skin cancer.
-

Making treatment decisions

Skin cancers may be treated by GPs, dermatologists, surgeons and radiation oncologists. For information on these health professionals, see pages 15–16.

Know your options – Understanding the type of skin cancer, the available treatments, possible side effects and any extra costs can help you weigh up the options and make a well-informed decision. 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. If you would like to record the discussion, ask your doctor first.

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



To find a dermatologist near you that specialises in non-melanoma skin cancer, visit the Australasian College of Dermatologists website at dermcoll.edu.au/find-a-derm.

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.

Consider a second opinion – You may want to get a second opinion from another doctor to confirm or clarify your doctor's recommendations or 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

Non-melanoma skin cancer is treated in different ways. The treatment recommended by your doctors will depend on:

- the type, size and location of the cancer
- your general health
- any medicines you are taking (these may increase the risk of bleeding after surgery or delay healing)
- whether the cancer has spread to other parts of your body.

If the excision biopsy (see page 17) removed all the cancer, you may not need any further treatment.

Surgery

Surgery to remove the cancer (surgical excision) is the most common treatment for invasive BCC and SCC. Most small skin cancers are removed by a GP or a dermatologist in their consulting rooms. 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). The recommended margin is usually between 2 mm and 10 mm depending on the type and location of the skin cancer.

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.

- ▶ See our *Understanding Surgery* booklet.

Treatment of sunspots and superficial skin cancer

Many of the treatments described in this chapter are used for sunspots as well as skin cancers.

Some sunspots may need treatment if they are causing symptoms or to prevent them becoming cancers.

Skin cancer that affects cells only on the surface of the top layer of the skin is called superficial. Treatment options for superficial

BCC and SCC in situ (Bowen's disease) include curettage and electrodesiccation, freezing, topical creams and photodynamic therapy.

Surgery is not always used for superficial BCC and SCC in situ. It may be used if the diagnosis is uncertain or if the area of abnormal tissue does not respond to non-surgical treatments.

Mohs micrographic surgery

Mohs micrographic surgery is usually done under local anaesthetic by a dermatologist or a Mohs specialist. It is used to treat skin cancers that have begun to spread deep into the skin. 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. Mohs surgery aims to reduce the amount of healthy skin that is removed with the cancer.

Only some skin cancers are suitable for Mohs surgery. This technique costs more than other types of surgery. Special equipment and training are needed so it's available only at some hospitals or clinics.

Repairing the wound

Most people will be able to have the wound closed with stitches. You will have a scar. This should be less noticeable over time. The area around the excision may feel tight and tender for a few days.

If you have a large skin cancer removed, your doctor will talk with you about what type of reconstruction is suitable for your wound. There are two main ways to do this:

- **skin flap** – nearby loose skin and underlying fatty tissue is moved over the wound and stitched
- **skin graft** – a piece of skin is removed from another part of the body (called the donor site) and stitched over the wound. The donor site may be stitched closed, or it may be dressed and allowed to heal by itself.

Skin flaps and grafts may be performed in the doctor's office but are sometimes done as day surgery in hospital under a local or general anaesthetic. The affected area will heal over a few weeks.

Whether you have an excision or Mohs surgery, sometimes you may need a more complex reconstructive procedure. This can involve more than one reconstruction technique, surgery that is done in stages, and a longer stay in hospital.

Curettage and electrodesiccation

Curettage and electrodesiccation (also known as cautery) is used to treat some BCCs, small SCCs, and areas of SCC in situ (Bowen's disease). This may be done by a GP or 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 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. Some people may have cryotherapy (see below) after curettage to destroy any remaining cancer cells.

Cryotherapy

Cryotherapy, or cryosurgery, is a procedure that uses extreme cold (liquid nitrogen) to remove sunspots, some small BCCs and SCC in situ (Bowen's disease).

The GP or 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 1-6 weeks, depending on the area treated. New, healthy skin cells will grow and a scar may develop. The healed skin will probably look paler than the surrounding skin.

Topical treatments

Some skin spots and superficial skin 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. Only use these treatments on the specific spots or areas that your doctor has asked you to treat. Don't use leftover cream on 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.

Imiquimod is used to treat sunspots and superficial BCCs. Your doctor will explain how to apply the cream and how often. For superficial BCCs, the cream is commonly applied directly to the affected area at 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

A cream called 5-fluorouracil (5-FU) is a type of chemotherapy drug. It is used to treat sunspots and, sometimes, SCC 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, your skin will be more sensitive to UV radiation and you 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.

Photodynamic therapy

Photodynamic therapy (PDT) uses a cream that kills cancer cells when a special light is applied. It is used to treat sunspots, superficial BCCs and SCC in situ (Bowen's disease).

After gently scraping the area to remove any dry skin or crusting, the doctor applies a cream to the skin. After three hours, light is shined onto the area for about eight minutes. The area is covered with a bandage. For skin cancers, PDT is usually repeated 1-2 weeks later.

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 these side effects with a cold water spray or pack, or give you a local anaesthetic to help ease any discomfort.

Radiation therapy (radiotherapy)

Radiation therapy uses a controlled dose of radiation to kill or damage cancer cells. It is used as the main treatment for BCCs or SCCs that are not suitable to be removed surgically, for large areas, or for people not fit enough for surgery. Sometimes radiation therapy is also used after surgery to reduce the chance of the cancer coming back or spreading.

Radiation therapy to treat skin cancer is given externally. It can be done using different techniques and types of radiation. The treatment team will work out the best technique for your situation. You may have a



You are not radioactive after external radiation therapy. It is safe for you to be with both adults and children after your treatment sessions.

separate planning session so the radiation therapy team can work out the best position for your body during treatment. Your treatment will usually start within a couple of weeks of this appointment. During each treatment session, you will lie on a table under the radiation machine. Once you are in the correct position, the machine will rotate around you to deliver radiation to the area containing the cancer. The entire process can take 10–20 minutes, but the treatment itself takes only a few minutes.

Your treatment plan will depend on the type, size and position of the cancer, and your overall health and wellbeing. This means that the number of treatments can vary. Some people will have five sessions a week for several weeks, others may have a much shorter course.

Skin in the treatment area may become red, dry and sore 2–3 weeks after treatment starts. This soreness may get worse after treatment has finished but it usually improves within six weeks. The treatment team will recommend creams to use to make you more comfortable.

► See our *Understanding Radiation Therapy* booklet.

Treating advanced skin cancer

A very small number of BCCs and SCCs spread to the lymph nodes or other areas of the body (advanced cancer). Your doctor will explain your treatment options depending on where the cancer is located.

Options may include surgery, radiation therapy or drug therapies such as immunotherapy, targeted

therapy or chemotherapy. You may have a combination of treatments.

To work out if the skin cancer has spread, your doctor will feel nearby lymph nodes and may recommend a biopsy of the lymph nodes and imaging scans. Your surgeon will talk to you about the risks and benefits of a lymph node biopsy.

Key points about treating skin cancer

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.
 - During Mohs surgery the surgeon removes layers of cells and checks them under a microscope immediately.
 - For larger wounds, the doctor may use skin from another part of the body (flap or graft) to cover the wound.
 - Curettage and electrodesiccation (cautery) is when the doctor removes the cancer with a small, 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 early 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. They may contain immunotherapy or chemotherapy drugs.
 - 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, for large areas and as an alternative to surgery in some cases. It can also be used to reduce the chance of the cancer coming back.
-



Life after treatment

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 to visit your doctor to develop a follow-up plan. Ask your doctor how often you need to have full skin checks.

Understanding sun protection

After a skin cancer diagnosis, you need to take special care to protect your skin from the sun's UV radiation. Using a sunscreen daily when the UV level is forecast to be 3 or above has been shown to reduce the risk of skin cancer.

The UV Index shows the intensity of the sun's UV radiation. It can help you work out when to use sun protection. An index of 3 or above means that UV levels are high enough to damage unprotected skin, and you need to use more than one type of sun protection.

The recommended daily sun protection times (see page 33) are the times of day the UV levels are expected to be 3 or higher. The daily sun protection times will vary according to where you live and the time of year.

Some medicines and health conditions may make the skin more sensitive to UV radiation, causing it to burn or be damaged by the sun more quickly or easily. Ask your doctor if this applies to you and if there are any extra things you should do to protect your skin. You may need to use sun protection all the time, whatever the UV level is.

Sun exposure and vitamin D

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

The body can absorb only a set 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. Most people get enough vitamin D through incidental exposure to the sun, while still using sun protection. When the UV Index is 3 or above, this may mean spending just a few minutes outdoors on most days of the week.

After a diagnosis of skin cancer, talk to your doctor about the best ways to get enough vitamin D while reducing your risk of developing more skin cancers. Your doctor may advise you to limit your sun exposure as much as possible. In some cases, this may mean you don't get enough sun exposure to maintain your vitamin D levels. Your doctor may tell you to take a supplement.



Skin cancer can change your financial situation, especially if you have extra medical expenses or need to travel for treatment. You can check whether any financial assistance is available by calling Cancer Council 13 11 20 or, if you are treated in hospital, asking the social worker. See our *Cancer and Your Finances* booklet for more information.

How to protect your skin from the sun

During sun protection times (when UV levels are 3 or above) use a combination of the following measures to protect your skin. Find a way to make sun protection part of your everyday routine – check the UV level forecast, apply sunscreen

Slip on clothing



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

Slap on a hat



Wear a hat that shades your face, neck and ears. This includes legionnaire, broad-brimmed and bucket hats. Check to make sure the hat meets the Australian Standard. Choose fabric with a close weave that doesn't let the light through. Baseball caps and sun visors do not offer enough protection.

Slop on sunscreen



Use an SPF 30 or higher broad-spectrum, water-resistant sunscreen. Apply 20 minutes before going outdoors and reapply every two hours, or after swimming, sweating or any activity that causes you to rub it off. For an adult, the recommended amount is 1 teaspoon for each arm, each leg, front of body, back of body, and the face, neck and ears – a total of 7 teaspoons of sunscreen for one full body application.

Slide on sunglasses



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

as part of your morning ritual, keep a broad-brimmed hat and sunscreen within easy reach (such as near the front door or in your bag), and look for shade whenever possible.

Seek shade



Use shade from trees, umbrellas, buildings or any type of canopy. UV radiation from the sun is reflective and can bounce off surfaces, such as concrete, water, sand and snow, so shade should never be the only form of sun protection you use. If you can see the sky through the shade, even if the direct sun is blocked, the shade will not completely protect you from UV.

Avoid solariums



Do not use solariums. Also known as tanning beds or sun lamps, solariums give off artificial UV radiation and are banned for commercial use in Australia.

Check daily sun protection times



Each day, use the free SunSmart app to check the recommended sun protection times in your local area. Visit sunsmart.com.au for more information.

You can also find sun protection times at the Bureau of Meteorology (bom.gov.au or the BOM Weather app) or in the weather section of daily newspapers.

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. Skin treated with radiation therapy may change in colour, and appear lighter or darker depending on your skin tone.

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. Talk to your doctor about treatments that can help improve the appearance of scars.

You may want to talk to a counsellor, friend or family member about how you are feeling after any changes to your appearance.

▶ See our *Emotions and Cancer* booklet.

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, call 1800 650 960 or visit lgfb.org.au.

“I had skin cancer removed from my left forearm, followed by a skin graft, with the donor area from inside the upper part of the same arm. I now have a large ‘indent’ from the removal of the cancer and a large scar at the donor site. I did not expect the amount of pain and appearance changes.” DAVID

Seeking support

Useful websites

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

Australian

Cancer Council Australia	cancer.org.au
Cancer Council Online Community	cancercouncil.com.au/OC
Cancer Council podcasts	cancercouncil.com.au/podcasts
Guides to Best Cancer Care	cancer.org.au/cancercareguides
Bureau of Meteorology	bom.gov.au
Cancer Australia	canceraustralia.gov.au
Carer Gateway	carergateway.gov.au
Department of Health	health.gov.au
Healthdirect Australia	healthdirect.gov.au
Melanoma Institute Australia	melanoma.org.au
My UV (SunSmart Cancer Council WA)	myuv.com.au
Services Australia	servicesaustralia.gov.au
SunSmart	sunsmart.com.au
The Australasian College of Dermatologists	dermcoll.edu.au

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 or excision?
 - What is my biopsy result? Do I have skin cancer?
 - What type of skin cancer is it?
 - Did the biopsy or excision remove all the skin cancer?
 - Are there clinical guidelines for this type of 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?
 - How long will treatment take?
 - If I don't have the treatment, what should I expect?
 - How much will the treatment cost? Is it covered by Medicare?
-

Side effects

- Will I have a lot of pain? What will be done about this?
 - 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?
 - How can I prevent further skin cancers?
-

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 top layer of the skin.

basal cell carcinoma (BCC)

A type of skin cancer that begins in the basal cells in the top layer of the skin.

biopsy

The removal of a sample of tissue from the skin for examination under a microscope to help make a diagnosis.

Bowen's disease

See squamous cell carcinoma (SCC) in situ.

cautery

See electrodesiccation.

cells

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

chemotherapy

A cancer treatment that uses drugs to kill cancer cells or slow their growth. May be given alone or with other treatments.

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 specialist doctor who diagnoses, treats and manages 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

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

excision biopsy

A type of biopsy where an area of abnormal skin is surgically removed (excised).

immunotherapy

A type of drug treatment that uses the body's own immune system to fight cancer.

invasive skin cancer

Cancer that has grown deeper into the skin beyond the epidermis. May invade blood vessels, nerves and nearby tissue.

keratinocyte

A cell that makes up most of the epidermis. Types include squamous cells and basal cells.

keratinocyte cancer

See non-melanoma skin cancer.

lesion

An area of abnormal tissue.

liquid nitrogen

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

lymphatic system

A network of vessels, nodes and organs that removes excess fluid from tissues, absorbs fatty acids, transports fat and produces immune cells.

lymph nodes

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

melanin

Dark pigment produced in melanocytes that gives skin its colour.

melanocyte

One of the three main types of cells that make up the top layer of the skin. Melanocytes produce a skin pigment called melanin.

melanoma

Cancer of the melanocytes.

Merkel cell

A type of cell in the top layer of the skin.

metastatic skin cancer

Skin cancer that has spread from the skin to other areas of the skin or body.

Mohs surgery

Specialised surgery to remove skin cancers one segment at a time until only healthy cells remain.

mole

See naevus.

naevus (plural: naevi)

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

non-melanoma skin cancer

Skin cancer that doesn't develop from the melanocytic cells, e.g. basal cell and squamous cell carcinomas. Also called keratinocyte 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 or solution applied to the skin that is activated by intense light.

plastic surgeon

A surgeon who has had specialist training in performing surgery that restores, repairs or reconstructs the body's appearance and function. Also known as a reconstructive surgeon.

radiation oncologist

A doctor who specialises in treating cancer with radiation therapy.

radiation therapy

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

skin flap

A procedure where nearby loose skin and underlying fatty tissue is moved over the wound left by the removal of a skin cancer and stitched. A flap keeps its blood supply.

skin graft

A procedure where a layer of skin is removed from one part of the body and fixed over the wound left by the removal of a skin cancer. A graft does not have its own blood supply.

solar keratosis (plural: keratoses)

See sunspot.

squamous cell

One of three types of cells that make up the top layer of the skin.

squamous cell carcinoma (SCC)

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

squamous cell carcinoma (SCC) 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 affects cells only on the surface of the top layer of the skin.

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, lotion 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 (also called sun lamps and tanning beds). UV radiation cannot be seen or felt.

UV Index

An international 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

References

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2. Cancer Council Victoria and Department of Health Victoria, *Optimal Care Pathway for People with Keratinocyte Cancer (basal cell carcinoma or squamous cell carcinoma)*, second edition, Cancer Council Victoria, Melbourne, 2021.
3. Australian Institute of Health and Welfare (AIHW), *Skin Cancer in Australia*, AIHW, Canberra, 2016.
4. Services Australia, *Medicare Item Reports*, Services Australia, Canberra, 2020, viewed 3 November 2021, available from medicarestatistics.humanservices.gov.au/statistics/mbs_item.jsp.



How you can help

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

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

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

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

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

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

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



Cancer Council

13 11 20

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

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

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

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



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



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

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

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

Visit your local Cancer Council website

Cancer Council ACT
actcancer.org

Cancer Council Queensland
cancerqld.org.au

Cancer Council Victoria
cancervic.org.au

Cancer Council NSW
cancercouncil.com.au

Cancer Council SA
cancersa.org.au

Cancer Council WA
cancerwa.asn.au

Cancer Council NT
cancer.org.au/nt

Cancer Council Tasmania
cancer.org.au/tas

Cancer Council Australia
cancer.org.au

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To support Cancer Council, call your local Cancer Council or visit your local website.*

