



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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Editor: Jenny Mothoneos. Designer: Eleonora Pelosi. Printer: SOS Print + Media Group.

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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 Australia

Level 14, 477 Pitt Street, Sydney NSW 2000
Telephone 02 8063 4100 **Facsimile** 02 8063 4101
Email info@cancer.org.au **Website** cancer.org.au
ABN 91 130 793 725

Introduction

This booklet has been prepared to help you understand how the two most common types of skin cancer – basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) – are diagnosed and treated. These are often called non-melanoma skin 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, we hope the information in this booklet will answer some of your questions and help you think about other questions to ask your treatment team.

This booklet does not need to be read from cover to cover – just read the parts that are useful to you. Some medical terms that may be unfamiliar are explained in the glossary.

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 clinical practice guidelines for BCC and SCC.^{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. Turn to the last page of this book for more details.



**Cancer
Council
13 11 20**

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What is cancer?

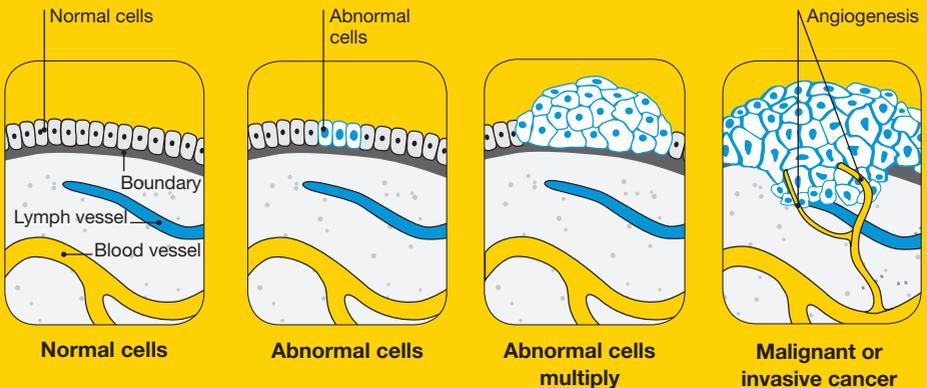
Cancer is a disease of the cells, which are the body's basic building blocks. The body constantly makes new cells to help us grow, replace worn-out tissue and heal injuries. Normally, cells multiply and die in an orderly way.

Sometimes cells don't grow, divide and die in the usual way. This may cause blood or lymph fluid in the body to become abnormal, or form a lump called a tumour. A tumour can be benign or malignant.

Benign tumour – Cells are confined to one area and are not able to spread to other parts of the body. This is not cancer.

Malignant tumour – This is made up of cancerous cells, which sometimes have the ability to spread by travelling through the bloodstream or lymphatic system (lymph fluid).

How cancer starts



The cancer that first develops in a tissue or organ is called the primary cancer. A malignant tumour is usually named after the organ or type of cell affected.

A malignant tumour that has not spread to other parts of the body is called localised cancer. A tumour may invade deeper into surrounding tissue and can grow its own blood vessels in a process called angiogenesis.

If cancerous cells grow and form another tumour at a new site, it is called a secondary cancer or metastasis. While it's possible for squamous cell carcinoma to spread, it's uncommon for basal cell carcinoma to spread. A metastasis keeps the name of the original cancer. For example, squamous cell skin cancer that has spread to the lymph nodes is called metastatic squamous cell cancer.

How cancer spreads

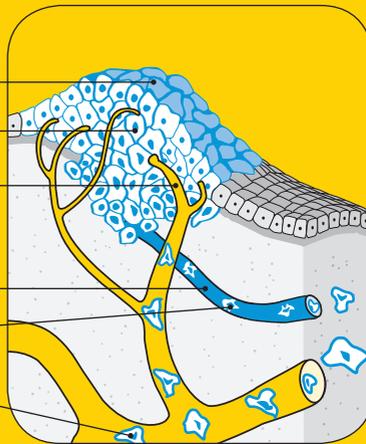
Primary cancer

Local invasion

Angiogenesis –
tumours grow their
own blood vessels

Lymph vessel

Metastasis –
cells invade other
parts of the body via
blood vessels and
lymph vessels





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 and form the thickest layer of the epidermis. Over time, our body sheds these dead skin cells.

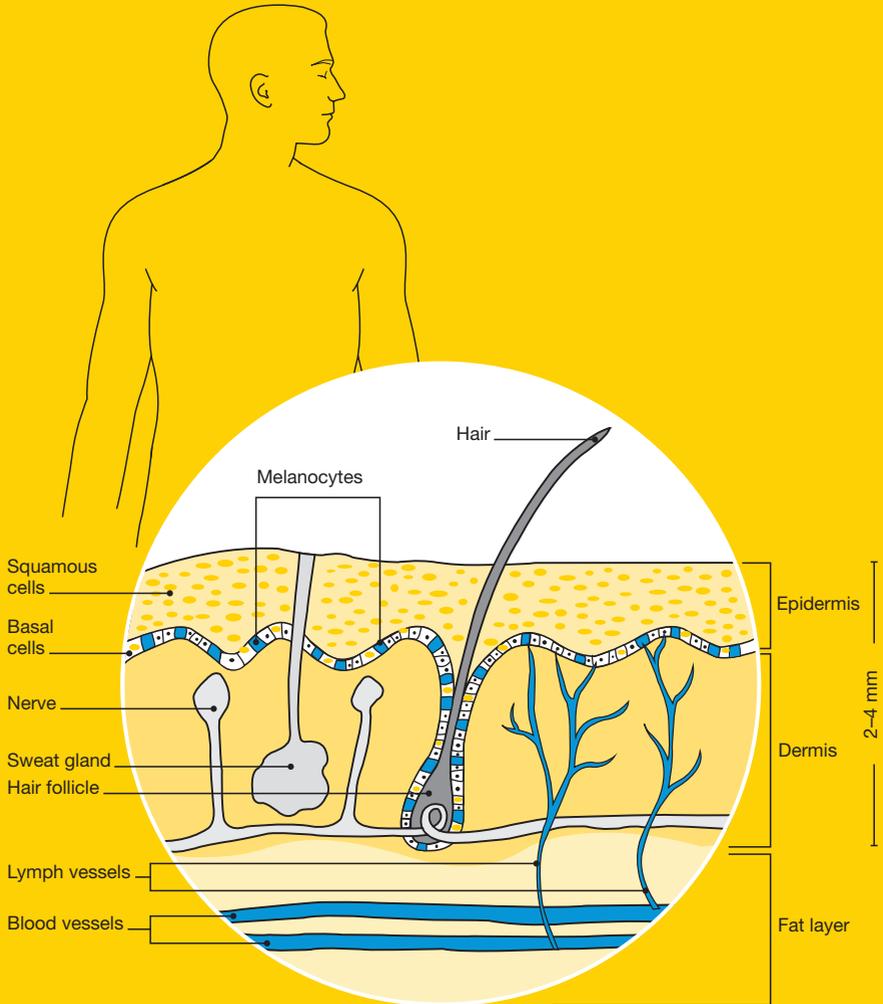
Basal cells – These block-like cells make up the lower layer of the epidermis and multiply constantly. As they age, they move up within the epidermis and flatten out to form squamous cells.

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 exposed to ultraviolet (UV) radiation, melanocytes make extra melanin to protect the skin from getting burnt. Melanoma develops in melanocytes. Melanocytes are also 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 gives 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 or keratinocytic skin cancers. See page 10 for a list of signs to look for.

Rare types of skin cancer include Merkel cell carcinoma and angiosarcoma, but 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 lower layer 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 upper layer of the epidermis. It accounts for about 30% of non-melanoma skin cancers.

SCC may spread to other parts of the body if left untreated. SCC on the lips and ears is more likely to spread and should be examined by a doctor as soon as possible.



Squamous cell carcinoma in situ, or Bowen disease, is an early form of skin cancer that begins 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.

Melanoma – This starts in the melanocyte cells of the skin. Although it is not as common as BCC and SCC, melanoma is considered the most serious type of skin cancer. This is because it is more likely to spread to other parts of the body, such as the lymph nodes, lungs, liver, brain and bones, especially if not detected early.

Australia and New Zealand have the highest rates of melanoma in the world.

For more information, call Cancer Council 13 11 20 and request a copy of *Understanding Melanoma*, or download a copy from your local Cancer Council website. The Melanoma Institute Australia website at melanoma.org.au also has more details.

The signs of skin cancer

Non-melanoma skin cancers		Melanoma
		
BCC	SCC	Superficial melanoma
<ul style="list-style-type: none"> usually develops on sun-exposed areas of the body, such as the head, face, neck, shoulders, back, lower arms and lower legs, but it 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, although some BCCs have a darker colour may bleed and become inflamed; some BCCs seem to heal then become inflamed again tends to grow slowly over months or years 	<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 it 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 tends to grow quickly over several weeks or months 	<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 or 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 skin-coloured)

The signs of non-cancerous skin spots

Harmless	Warning signs of skin cancer	
		
Mole	Dysplastic naevus	Sunspot
<ul style="list-style-type: none"> • brown, black or skin-coloured and usually round or oval 	<ul style="list-style-type: none"> • mole with an irregular shape and uneven colour 	<ul style="list-style-type: none"> • flat, scaly spot that feels rough and often skin-coloured or red

Q: What about other skin spots?

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

Moles (naevi) – A mole (naevus) is a normal growth on the skin that develops when the skin's pigment-producing cells (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.

Dysplastic naevi – People with many dysplastic naevi have a greater risk of developing melanoma.

Sunspots (solar or actinic keratoses) – Anyone can develop sunspots, but they occur more often in people over 40, generally on skin that's frequently exposed to the sun, such as the head, neck, hands, forearms and legs.

They are a warning sign that the skin has had too much sun exposure, increasing the risk of skin cancer.

Q: What causes skin cancer?

A: The main cause of all types of skin cancer is overexposure to UV radiation. 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). While commercial sun beds are now banned in Australia, people who used a solarium before age 35 have an almost 60% greater risk of melanoma.

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, but it can cause:

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

To help understand when to protect yourself from the sun, see *The UV Index and sun protection times* on page 31.

Q: Who is at risk?

A: Anyone can develop skin cancer, but it's more common the older you are. 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)
- experienced 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 being HIV-positive
- lots of moles on their body
- moles with an irregular shape and uneven colour (dysplastic naevi, see page 11)
- a previous or family history of skin cancer
- certain skin conditions such as sunspots.

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

Slip, slop, slap, seek and slide 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 770,000 new cases of BCC and SCC are treated each year. BCC can develop in young people, but it is more common in people over 40. SCC occurs mostly in people over 50.

More than 12,000 people are diagnosed with melanoma each year. It is among the five most commonly diagnosed cancers in all age groups.⁴

Q: How do I spot a skin cancer?

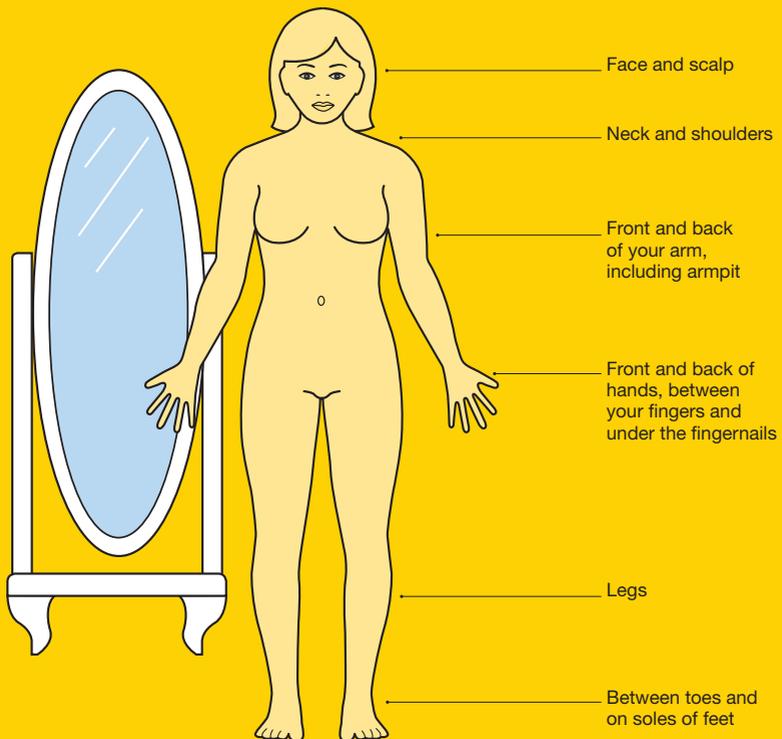
A: Skin cancers don't all look the same, but there are signs to look out for, including:

- a spot that is different from other spots on the skin
- a spot that has changed size, shape, colour or texture
- a sore that doesn't heal
- 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 to 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, you can use a handheld mirror or ask someone to help you.



If you notice anything new or changes to your skin, make an appointment with your GP or dermatologist straightaway (see page 16). Skin cancers that are found and treated early need less invasive treatment and have a better outcome (prognosis). Visit [sunsmart.com.au/skin-cancer/checking-for-skin-cancer](https://www.sunsmart.com.au/skin-cancer/checking-for-skin-cancer) for more information about checking your skin.



Diagnosis

If you notice any changes to your skin, there are a number of health professionals you can see to help make a diagnosis. They will examine you, paying particular attention to any spots you think are suspicious. Your doctor may use a handheld magnifying instrument called a dermatoscope to see the spot more clearly. Many skin cancers are diagnosed with only a physical examination, but others require a biopsy (see page 18).

Which health professionals will I see?

General practitioner (GP) – A GP treats the majority of people with skin cancer using some types of surgery (see page 23) and by prescribing creams or gels (topical treatments, see pages 26–27). They may refer you to a dermatologist or surgeon if necessary.

Dermatologist – This is a specialist doctor who is trained in preventing, diagnosing and treating skin conditions, including skin cancer. They can provide general and cosmetic surgery and prescribe topical treatments.

When you make the appointment, ask the receptionist about the cost of the procedure and how much will be refunded by Medicare, and check if there is a waiting list. If 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 care for free. Your GP can refer you. In areas without a dermatologist, you may be able to see a visiting dermatologist or a surgeon.

Surgeon – Some skin cancers are treated by specialised surgeons:

- surgical oncologist – can manage complex skin cancers, including those that have spread to the lymph nodes
- plastic surgeon – is trained in complex reconstructive techniques for areas that are difficult to treat, such as the nose, lip, eyelid and ears.

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 necessarily offer a higher level of skill than your usual GP. In deciding whether to attend a skin clinic, consider four main points:

- **the qualifications and experience of the medical staff** – this includes whether they are members of a professional association relevant to treating skin cancer (e.g. Skin Cancer College Australasia)

- **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 refundable by Medicare); others require up-front payment for all appointments
- **the diagnostic and treatment services offered**
- **the follow-up provided.**

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

Skin biopsy

If it's difficult to tell the difference between a skin cancer and a non-cancerous skin spot, 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 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 and stitches are used to close the wound and help it heal.

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.



Can smartphone apps help detect skin cancer?

A number of 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.

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 as they are able to spread, although this is uncommon.

Usually a biopsy is the only information a doctor needs to diagnose skin cancer. In cases of 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, 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 non-melanoma skin cancers such as BCC and SCC are successfully treated, especially if found early.

While most 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

- Australia has one of the highest rates of skin cancer in the world.
- Although not all skin cancers look the same, signs include a spot that is different from other spots on the skin; a spot that has changed size, shape, colour or texture; a sore that doesn't heal; or a sore that is itchy or bleeds.
- Your GP can perform a full body skin check and treat some skin cancers. They can refer you to a specialist, such as a dermatologist, surgical oncologist or plastic surgeon, if necessary.
- A dermatologist is a specialist doctor trained in preventing, diagnosing and treating skin conditions, including skin cancer.
- Surgical oncologists are 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.
- Your doctor may perform a skin biopsy to determine whether the spot is cancerous. A biopsy is when tissue is removed and examined under a microscope. You may have stitches to close up the wound.
- The biopsy results will be ready in about a week. In some cases, a biopsy will be the only procedure needed to treat the skin cancer.



Making treatment decisions

Skin cancers may be treated by GPs, dermatologists and surgeons. For information on these doctors, see pages 16–17.

- Before you see the doctor, it may help to write down any questions you'd like to ask – see the list of suggested questions on page 36.
- Many people like to take a relative or friend with them to the doctor to take part in the discussion, take notes or simply listen.
- Be guided by your doctor and weigh up the advantages and disadvantages of different treatments. If only one type of treatment is recommended, ask your doctor why you have not been offered other choices.
- If you have a partner, you may want to discuss the treatment options together. 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.
- You have the right to accept or refuse any treatment offered by your doctors and other health professionals.

To find a dermatologist or surgeon, visit the Australasian College of Dermatologists website at dermcoll.edu.au and use the “Find a dermatologist” search bar.



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.

Taking part in a clinical trial

Your doctor or nurse may suggest you take part in a clinical trial, though this is not common for skin cancers. 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. It may be helpful to talk to your specialist or clinical trials nurse, or to get a second opinion. If you decide to take part, you can withdraw at any time. For more information, call Cancer Council 13 11 20 for a free copy of *Understanding Clinical Trials and Research*, or visit australiancancertrials.gov.au.

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.

Surgery

Surgery is the most common treatment for skin cancer. It is usually a quick and simple procedure that can be performed by a GP or a dermatologist. More complex cases may be treated by a surgeon.

The doctor uses a local anaesthetic to numb the affected area, then cuts out the skin cancer and some nearby normal-looking tissue (margin) before closing the wound with stitches. A pathologist checks the margin to make sure the cancer has been completely removed. The results will be available in about a week. If cancer cells are found in the margin, further surgery may be required.

Repairing the wound

For large skin cancers, a bigger area of skin needs to be removed, and 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 from another part of the body is 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.

Mohs surgery

Mohs surgery, or microscopically controlled excision, is usually done under local anaesthetic by a dermatologist to treat large skin cancers that have penetrated deep into the skin or come back (recurred). It can also be used for cancers in areas that are difficult 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.

Mohs surgery reduces the amount of healthy skin that is removed while making sure all the cancer is taken out.



Mohs surgery is available only at some private specialist dermatology practices and private hospitals. The procedure costs more than other types of skin cancer surgery because of the time it takes and the equipment required.

Curettage and cautery

Curettage and cautery is used to treat some BCCs and squamous cell carcinoma in situ. It is usually done by a dermatologist.

You will be given a local anaesthetic and the doctor will scoop out the cancer using a small, sharp, spoon-shaped instrument called a curette. They will then apply low-level heat (cautery) to stop the bleeding and destroy any remaining cancer, and cover the wound with a dressing. The wound should heal within a few weeks, leaving a small, flat, round, white scar.

Cryotherapy

Cryotherapy, or cryosurgery, is a freezing technique used to remove sunspots and some superficial BCCs.

The doctor, usually a dermatologist, sprays liquid nitrogen onto the sunspot or skin cancer and a small area of skin around it. This causes a burning or stinging sensation, which lasts a few minutes. The liquid nitrogen freezes and kills the abnormal skin cells and creates a wound, which will be sore and red for a few days and may weep or blister. The area may also swell for a few days. In some cases, the procedure may need to be repeated.

A crust will form on the wound and 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. Healing can take a few weeks, and the healed skin will probably look paler and whiter than the surrounding skin.

Topical treatments

Some skin spots and cancers can be treated using creams or gels prescribed by a doctor that you apply directly on the skin. These are called topical treatments. They may contain immunotherapy or chemotherapy drugs as their active ingredient.

Immunotherapy

Sunspots, superficial BCCs and squamous cell carcinoma in situ (Bowen disease) can be treated using a cream called imiquimod (brand name, Aldara). This is a type of immunotherapy drug that causes the body's immune system to destroy the cancer cells. You apply imiquimod directly to the affected area once a day at night, usually five days a week for six weeks.

Imiquimod can cause scabbing and crusting, which may be uncomfortable. The treated skin may become red and inflamed and may be tender to touch. Some people have a more serious reaction to imiquimod, but this is uncommon. Symptoms include 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

5-fluorouracil (5-FU) – This cream is used to treat superficial BCCs, sunspots and, sometimes, squamous cell carcinoma in situ (Bowen disease). It 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 three to four weeks.

While using the cream, you will be more sensitive to the sun and will need to stay out of the sun. The treated skin may become red, blister, peel and crack, and often feel uncomfortable. These effects will usually settle within a few weeks after treatment has finished.

Ingenol mebutate – This new type of topical chemotherapy for sunspots is a gel that you apply to the affected skin once a day for two or 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 after treatment has finished.

Vismodegib is a new treatment for people with BCC that has spread and who aren't suitable for surgery and radiation therapy. It is taken as a tablet once a day. Common side effects include muscle spasms, taste changes and upset stomach.



Photodynamic therapy

Photodynamic therapy (PDT) uses a cream and a light source to treat sunspots, superficial BCCs and squamous cell carcinoma in situ (Bowen disease).

The GP or dermatologist gently scrapes the area with a curette and applies a cream that is sensitive to light. After three hours, they will shine a special light onto the area for about 8 minutes and cover it with a bandage. For skin cancers, PDT is usually repeated after two weeks.

Side effects can include redness and swelling, which usually ease after a few days. Some people experience a burning or stinging sensation during PDT, particularly for treatment to the face. Your doctor may use a cold water spray or pack, or give you a local anaesthetic to help ease the 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, and for cancers that have spread or come back.

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. 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 and may last for a few weeks after treatment has finished. For more information, call Cancer Council 13 11 20 and ask for a free copy of *Understanding Radiation Therapy*, or download a copy from your local Cancer Council website.

Removing lymph nodes

If the cancer has spread, the doctor may recommend a lymph node dissection. This means that the cancerous lymph nodes are cut out to 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

- Surgery is the most common and successful treatment for skin cancer.
- During surgery, your doctor will carefully cut out the skin cancer and close the wound with stitches. Sometimes the doctor will use skin from another part of the body (flap or graft) to cover the wound.
- Mohs surgery, also known as microscopically controlled excision, is a specialised procedure that is only available at some private clinics and private hospitals. The surgeon removes layers of cells and checks them under a microscope immediately. The aim is to remove the cancer cells and leave only healthy tissue.
- Curettage and cautery is when the doctor gently removes the cancer with a sharp tool called a curette. Then low-level heat (cautery) is used to stop the bleeding and destroy any remaining cancer cells.
- 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.
- Some skin spots and cancers can be treated using creams, lotions and gels. This is called topical treatment and it includes immunotherapy, 5-FU chemotherapy, ingenol mebutate and vismodegib.
- Photodynamic therapy is the use of a light source and a cream to treat sunspots and some skin cancers.
- Cancers that are hard to treat with surgery may require treatment with radiation therapy.



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. People who have had skin cancer are also at higher risk of developing more skin cancers. This is because sun damage builds up over time and cannot be reversed.

It's important to prevent further damage to your skin. Follow the steps on pages 32–33 to make sun protection a part of your lifestyle, and visit your doctor for yearly full body skin checks.

Sun exposure and vitamin D

UV radiation from the sun causes skin cancer, but it is also the best natural source of vitamin D, which is needed to develop and maintain strong and 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 your location, the season and time of day, cloud coverage and the environment. (For more information on the UV Index, see opposite.)

The body can only absorb 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 while reducing your risk of further skin cancers.

The UV Index and sun protection times

The UV Index shows the intensity of 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 recommended.

The daily sun protection times tell you the times of day the UV Index levels are forecast to be 3 or higher. The sun protection times vary according to your location and will change throughout the year. In general, during summer in Australia, all states experience long periods during the day when the UV Index is 3 or above. In late autumn and winter in southern Australia, the UV Index may fall below 3 and sun protection is not necessary.

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 by downloading the free SunSmart app for iPhone, iPad and Android devices.

“After having a BCC cut out, I was more conscious of using sunscreen and wearing a hat. I found using the SunSmart app a good way to know when to avoid being outside. ”  Pete

Protecting your skin from the sun

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

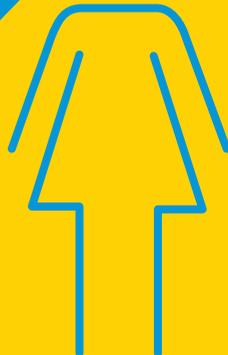
Slip on clothing

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



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.



Slop on sunscreen

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



Avoid sun lamps and solariums

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



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.

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 a free SunSmart app, online (sunsmart.com.au or bom.gov.au/uv), in the weather section of daily newspapers, or as a free website widget.

Protect children

Use a combination of sun protection measures to protect babies and children from direct sunlight. Applying sunscreen on babies under 6 months is not recommended.



Slide on sunglasses

Protect your eyes with sunglasses that meet the Australian Standard AS 1067. Wraparound styles are best. Sunglasses should be worn all year round.





Seeking support

Cosmetic care

Skin cancer treatments such as surgery, curettage and cauterly, and cryotherapy often leave scars. 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 conceal 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.

Practical and financial help

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

Financial assistance – through benefits, pensions and programs – may help pay for prescription medicines and transport costs to medical appointments. These 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.



Useful websites

The internet has many useful resources, although not all websites are reliable. The websites listed below are good sources of support and information.

Australian

Cancer Council Australia.....	cancer.org.au
Cancer Australia.....	canceraustralia.gov.au
Healthdirect Australia.....	healthdirect.gov.au
SunSmart.....	sunsmart.com.au
Skin & Cancer Foundation Inc.....	skincancer.asn.au
The Australasian College of Dermatologists.....	dermcoll.edu.au
Skin Cancer College Australasia.....	skincancercollege.org
Bureau of Meteorology.....	bom.gov.au/uv
My UV (SunSmart Cancer Council WA).....	myuv.com.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

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

- 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?
- Do I need further treatment? If so, what treatment do you recommend?
- Do I need to see a specialist?
- What will happen if I don't have treatment?
- How much will the treatment cost?
- Will there be any scarring after the skin cancer has been removed?
- When will I get my results and who will tell me?
- 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.

angiogenesis

The formation of new blood vessels. This enables tumours to develop their own blood supply, helping them grow.

basal cell

A type of cell that makes up the lower layer of the epidermis.

basal cell carcinoma (BCC)

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

benign

Not cancerous or malignant.

biopsy

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

cautery

A technique that uses heat to stop bleeding after curettage.

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.

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.

epidermis

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

immunotherapy

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

keratinocytic skin cancer

See non-melanoma skin cancer.

lesion

An area of abnormal tissue that may be benign, precancerous or malignant.

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.

melanin

Dark pigment produced in melanocytes that gives skin its colour.

melanocyte

One of the three 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

Basal cell carcinoma (BCC) or squamous cell carcinoma (SCC). Also known as keratinocytic 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 person's 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 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

A type of cell that makes up the top layer of the 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 disease.

sunspot

A red, scaly spot on the skin that is a sign of sun damage. Also called solar or actinic 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. Australian Cancer Network Working Party to revise Management of Non Melanoma Skin Cancer Guidelines (2002), *Basal cell carcinoma, squamous cell carcinoma (and related lesions) – a guide to clinical management in Australia*, Cancer Council Australia and Australian Cancer Network, Sydney, 2008.
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. MP Staples et al., "Non-melanoma skin cancer in Australia: the 2002 national survey and trends since 1985", *Medical Journal of Australia*, vol. 184, no. 1, 2006, pp. 6–10.
4. Australian Institute of Health and Welfare (AIHW), *Cancer in Australia 2017*, AIHW, Canberra, 2017.



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

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