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

Cancer Council Helpline
13 11 20
Understanding Skin Cancer
A guide for people with cancer, their families and friends

First published March 2012. This edition March 2014
© Cancer Council Australia 2014. ISBN 978 1 921619 99 1

Understanding Skin Cancer is reviewed approximately every two years. Check the publication date above to ensure this copy is up to date.

Acknowledgements
This edition has been developed by Cancer Council NSW on behalf of all other state and territory Cancer Councils as part of a National Publications Working Group initiative.

We thank the reviewers of this booklet: Dr Richard Lewandowski, Plastic and Reconstructive Surgeon, Director of Surgery, Mater Adults Hospital, QLD; Prof H Peter Soyer, Chair, Dermatology Research Centre, The University of Queensland, School of Medicine, Acting Head, South-West Cluster & PA-Southside Clinical School, Deputy Head, School of Medicine, Director, Dermatology Department, Princess Alexandra Hospital, QLD; Carole Arbuckle, Helpline Consultant, Cancer Council Victoria; Irena Brozek, Research and Development Officer, Health Strategies, Cancer Council NSW; Julie Fraser, Consumer; Jenny Lawrence, Consumer; Dr Matheen Mohamed, Consultant Dermatologist, St Vincent’s Hospital Melbourne, VIC; Margaret Whitton, Clinical Nurse Consultant, Department of Dermatology, Royal Prince Alfred Hospital, NSW.


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 appropriate independent professional advice relevant to your specific situation 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 Australia
Cancer Council Australia is the nation’s peak non-government cancer control organisation. Together with the eight state and territory Cancer Councils, it coordinates a network of cancer support groups, services and programs to help improve the quality of life of people living with cancer, their families and carers. This booklet is funded through the generosity of the people of Australia. To make a donation and help us beat cancer, visit Cancer Council’s website at www.cancer.org.au or call your local Cancer Council.

Cancer Council Australia
Level 14, 477 Pitt Street, Sydney NSW 2000
Cancer Council Helpline 13 11 20
Telephone 02 8063 4100 Facsimile 02 8063 4101
Email info@cancer.org.au Website www.cancer.org.au
ABN 91 130 793 725
Introduction

*Understanding Skin Cancer* has been prepared to help you learn more about the two most common types of skin cancer: basal cell carcinoma (BCC) and squamous cell carcinoma (SCC).

The information in this booklet is intended to help you understand the causes, diagnosis and treatment of skin cancer. It explains how to prevent skin cancer and spot it at an early stage, and also covers some treatment options.

We cannot advise you about the best treatment for you. This is something you will need to discuss with your doctors. However, we hope this information will answer some of your questions and help you think about other questions to ask your treatment team.

This booklet does not need to be read from cover to cover – just read the parts that are useful to you. Some medical terms that may be unfamiliar are explained in the glossary. You may also like to pass this booklet on to your family and friends for their information.

This information was developed with help from a range of health professionals and people affected by skin cancer.
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 have the ability to spread by travelling through the bloodstream or lymphatic system (lymph fluid).

**How cancer starts**

- Normal cells
- Abnormal cells
- Abnormal cells multiply
- Malignant or invasive cancer
- Normal cells
- Abnormal cells
- Angiogenesis
- Lymph vessel
- Blood vessel
- Boundary
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 (called angiogenesis).

If cancerous 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, skin cancer that has spread to the lymph nodes is still called skin cancer, even though the person may be experiencing symptoms caused by problems in the lymph nodes.

**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 covers the body, protecting it from injury, regulating its temperature and controlling fluid loss. Skin, like all other body tissues, is made up of cells. Its two main layers are the epidermis and dermis.

**Epidermis**

This is the outer layer of the skin. It contains three types of cells:

- **squamous cells** – flat cells that are packed tightly together to make up the top layer
- **basal cells** – tall cells that make up the lower layer
- **melanocytes** – cells that produce a dark pigment called melanin, the substance that gives skin its colour.

Basal cells multiply constantly and the older cells move upwards into the epidermis. When they flatten out and form a layer they become known as squamous cells. The top layer of your skin is made up of dead skin cells, which eventually fall off. The three main types of skin cancer begin in the cells of the epidermis.

When skin is exposed to the sun, melanocytes make extra melanin to protect the skin from getting burnt. This is what causes skin to tan. Melanocytes are also in non-cancerous (benign) spots on the skin called moles or naevi. Most moles are brown, tan or pink in colour and round in shape.

**Dermis**

This is the layer underneath the epidermis. It contains the roots of hairs, sweat glands, blood and lymph vessels, and nerves. Before a skin cancer can spread, it must first move into the dermis.
The skin

- Squamous cells
- Basal cells
- Nerve
- Sweat gland
- Hair follicle
- Blood vessels
- Melanocytes
- Hair
- Epidermis
- Basement membrane
- Dermis
- Fat layer
Q: What is skin cancer?
A: Skin cancer is the uncontrolled growth of abnormal cells in the skin.

Q: What types are there?
A: There are three main types of skin cancer: basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and melanoma. BCC and SCC are sometimes called non-melanoma skin cancers (NMSCs).

There are other rare skin cancers, such as Merkel cell carcinoma, Kaposi sarcoma or T cell lymphoma of the skin, but these cancers are treated very differently from BCCs and SCCs. Call Cancer Council Helpline 13 11 20 for more details.

**Basal cell carcinoma (BCC)**

BCC makes up about 70% of non-melanoma skin cancers.

- It commonly develops on the head, neck and upper body.
- It may appear as a pearly lump or a scaly, dry area that is pale or bright pink in colour and shiny.
- BCC may bleed and become inflamed, and dead tissue may slough off (ulcerate). Some BCCs heal then break down again.

Often BCCs have no symptoms. They tend to grow slowly and don’t usually spread to other parts of the body. The earlier a BCC is found, the easier it will be to treat.
However, if a BCC is left untreated or grows larger than 5cm, it may grow deeper into the skin and damage nearby tissue. This may make treatment more difficult and increase the chance of the BCC returning.

It is possible to have more than one BCC at the same time; having one increases your risk of getting another.

**Squamous cell carcinoma (SCC)**

SCC accounts for about 30% of non-melanoma skin cancers.

- SCC usually appears on parts of the body most often exposed to the sun, such as the head, neck, hands, forearms or lower legs.
- It often appears as a thickened, red, scaly spot or as a rapidly growing lump.
- SCC may look like a sore that hasn’t healed.
- It may be tender to touch, and is sometimes mistaken for a skin sore (boil).

SCCs tend to grow quickly over several weeks or months. It is possible for SCCs to spread to other parts of the body if left untreated.

Bowen’s disease (also called squamous cell carcinoma in situ) looks like a red, scaly patch. It is an early form of skin cancer found in the outer layer of the skin (epidermis). If not treated, it can sometimes develop into a SCC.
Melanoma

Australia has the highest rates of melanoma in the world, with over 12,500 cases diagnosed in 2012. Melanoma is considered the most serious type of skin cancer.

• It can often appear as a new spot or an existing spot that changes size, shape or colour over several weeks or months.

• Melanoma often has an irregular edge or surface, and it may be more than one colour, such as brown, black, blue, red, white or light grey. Rarely, melanomas are just one colour, such as black or red.

Left untreated, a melanoma may spread deeper into the skin where cancer cells can escape and be carried in lymph vessels or blood vessels to other parts of the body. The earlier melanoma is diagnosed, the better the chance of cure.

For a free booklet about how melanoma is diagnosed and treated, call Cancer Council Helpline 13 11 20.

Q: What about spots that aren’t cancer?

A: Not all spots that appear on your skin are cancerous. However, freckles, moles or sunspots are warning signs that your skin has had too much sun exposure and you may be at a greater risk of developing skin cancer.
Moles (naevi)
A mole (naevus) is a normal growth on the skin. Moles develop when the pigment-producing cells of the skin (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 lead to more moles growing on the skin.

Dysplastic naevi
Moles that have an irregular shape and an uneven colour are called dysplastic naevi. People with many dysplastic naevi are at greater risk of developing melanoma. If you have these moles, ask your doctor how to check your skin regularly for any changes to find new skin spots. If you notice any changes, see your doctor immediately.

Sunspots (solar keratoses)
Red, scaly spots on the skin that feel rough are called sunspots (solar keratoses). They usually occur in people aged over 40 on areas of skin frequently exposed to the sun, such as the head, neck, hands, forearms and legs. Rarely, solar keratoses may develop into SCC.

I have quite a few irregular looking moles on my back and arms, so it gives me peace of mind to get them checked regularly. Sally
Non-cancerous skin spots

Dysplastic naevus – mole with uneven and irregular colour

Sunspot (solar keratose) – red, flat scaly skin that feels rough

Non-melanoma skin cancers

Basal cell carcinoma – pearly coloured dry, flat area or lump

Squamous cell carcinoma – red, thickened scaly spot

Melanoma skin cancer

Border irregularity – an existing spot that has changed in size or shape

Colour variation – an existing spot that has changed in colour
Q: **How common is skin cancer?**

A: Australia has among the highest rate 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.

BCC and SCC are the most common types of non-melanoma skin cancer. In Australia, over 750,000 new cases of BCC and SCC are diagnosed and treated each year.

BCC can develop in young people, but is most common in people aged over 40. SCC occurs mostly in people aged over 50.

Melanoma can occur in young people, but is more common in people over 40, especially men.

Q: **What causes skin cancer?**

A: The main cause of skin cancer is exposure to ultraviolet (UV) radiation. The sun produces UV radiation but it can also come from other sources, such as solarium tanning machines. People that use a sunbed before age 35 have nearly a 60% greater risk of melanoma.

Most parts of Australia have high levels of UV radiation all year-round. This radiation cannot be seen or felt, but can cause:

- sunburn
- premature ageing of the skin
- damage to the skin cells, which leads to skin cancer.
Skin cancer is related to two factors: a person’s total lifetime exposure to UV radiation, and the pattern of sun exposure they have had. Research suggests that while skin cells are often damaged in childhood, it may be sun exposure in adulthood that triggers these damaged cells to turn cancerous.

The UV Index shows the intensity of the sun’s UV radiation. An Index of 3 (moderate) or above indicates that UV levels are high enough to cause skin damage and sun protection is needed, for example wearing a hat, applying sunscreen and seeking shade.

The daily SunSmart UV Alert shows sun protection times for over 200 locations in Australia. It also forecasts the maximum UV Index. You can check the Alert on the weather page of most daily newspapers, or by using a free app for smartphones – see www.bom.gov.au/uv/iphoneapp.shtml.

**How to read the Alert**

UV Index ranges from:
- Low (0–2)
- Moderate (3–5)
- High (6–7)
- Very High (8–10)
- Extreme (11+)

This shows the time period you need to be sunsmart on this day.

The maximum UV Index level on this day is forecast to be 7, which is high.
Q: **Who is at risk?**

A: Anyone can develop skin cancer, regardless of their skin colour or general health. However, the risk is higher for people who have:

- fair skin that burns easily, freckles and doesn’t tan
- experienced short, intense periods of exposure to UV radiation, especially if it leads to sunburn (e.g. on holidays or during sport)
- actively tanned or used solariums/sunbeds
- worked outdoors
- red or fair hair and blue or green eyes
- a weakened immune system, which could be caused by taking certain medications that suppress the immune system, or from being HIV positive
- numerous moles on their body
- dysplastic naevi (see page 11)
- a personal or family history of melanoma.

People with olive or very dark skin naturally have more protection against skin cancer because their skin produces more melanin than fair-skinned people. However, because UV radiation is so strong in Australia, very dark and olive-skinned people still need to protect their skin.

For more information about protecting your skin, see page 34, or visit your local Cancer Council website. Talk to your GP about your risks for skin cancer and about checking your skin.
Key points

- Skin cancer is the uncontrolled growth of abnormal skin cells in the skin. It is usually superficial, which means it only affects the skin’s surface and doesn’t spread throughout the body.

- The three main types of skin cancer are basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and melanoma. BCC and SCC are sometimes called non-melanoma skin cancers.

- BCC is the most common form of non-melanoma skin cancer. It often develops on the head, neck or upper body. It usually looks like a pearly lump or a scaly, dry area. BCCs may ulcerate (dead tissue sloughs off).

- SCC usually appears on the head, neck, hands, forearms or lower legs. It often looks like a thickened, red, scaly and tender lump.

- The main cause of skin cancer is exposure to ultraviolet (UV) light, usually from the sun. UV radiation also comes from other sources, such as solarium tanning machines.

- It helps to be familiar with how your skin looks. If you see anything new or different, have it checked immediately by your GP or a dermatologist.

- Not all spots that appear on your skin are cancerous. However, freckles, moles or sunspots are warning signs that your skin may be at higher risk of developing skin cancer.

- Limiting sun exposure will help prevent skin cancer.

- Check the daily UV Index in daily newspapers or download the SunSmart alert from www.bom.gov.au/uv/iphoneapp.shtml. If the UV Index is 3 or higher, sun protection is needed.
Recognising a skin cancer

Normal, healthy freckles and moles usually have a smooth edge and an even colour. Skin cancers don’t all look the same but there are some signs to look out for including:

- a spot that is different from other spots on the skin
- a spot, mole or freckle that has changed in size, shape or colour
- a sore that doesn’t heal
- a spot that bleeds.

It’s important to get to know your skin. Checking your skin every three months or as recommended by your GP will help you notice any new or changing moles, freckles and spots, and learn what is normal for you.

How to check your own skin

Find a room with good light and a full length mirror or, if you are on your own, a handheld mirror to check difficult-to-see areas.

Undress completely and examine your skin, each body part at a time, until you have checked your whole body. Pay particular attention to your face, neck, shoulders, arms, back of your hands, back, legs, bottom of the feet and between the toes.

If you see anything new or different on your skin, make an appointment with your GP or a dermatologist straightaway. Skin cancers that are found and treated early need less invasive treatment and have a better outcome (prognosis).

For further information on how to conduct a skin check visit www.sunsmart.com.au/skin-cancer/checking-for-skin-cancer.
Skin biopsy

Your doctor will look at all your skin, including any spots you have identified as changed or suspicious. If a skin cancer is suspected, the doctor will usually take a tissue sample (biopsy) to confirm the diagnosis. A biopsy is a quick and simple procedure, and is usually performed in the doctor’s office.

Your GP or specialist will give you a local anaesthetic to numb the area. A small piece of tissue will be taken from the skin spot or the spot will be completely cut out. You will usually have stitches to close the wound and help it heal.

The tissue that is cut out will be sent to a laboratory where a pathologist will examine the cells under a microscope. It takes about a week for the results of your tests to be ready.

If all the cancer is removed during the biopsy, this will probably be the only treatment you need. For more information on how to protect your skin after treatment, see page 34.

Dealing with the diagnosis

Most skin cancers do not pose a serious risk to your health. However, 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 Helpline 13 11 20.
**Prognosis**

Prognosis means the expected outcome of a disease. The doctor most familiar with your situation is the best person to talk to about your prognosis.

Most skin cancers are successfully treated if found early. Nearly everyone with non-melanoma skin cancer that has treatment will be cured.

**Staging**

Usually a biopsy is the only information a doctor needs to determine the stage of a non-melanoma skin cancer.

Staging is a way to describe its size and whether it has spread beyond its original size. In some cases of SCC, lymph nodes may be examined to see if the cancer has spread.

**Which health professionals will I see?**

If you have a suspicious spot, there are a number of health professionals you may see.

**General practitioner (GP)**

Your GP knows your medical history, and can examine your skin (including areas that are not exposed to the sun).

GPs often treat skin cancers but may refer you to a specialist, such as a dermatologist or plastic surgeon, if necessary.
Dermatologist
Your GP may refer you to a dermatologist. A dermatologist is a doctor who has completed specialist training in preventing, diagnosing and treating skin diseases, including skin cancer.

Plastic surgeon
A plastic surgeon is trained in complex constructive techniques, as well as surgical treatment, if the cancer has spread to other parts of the body.

tips
- Obtain a referral from a GP. You can see a dermatologist without a GP referral, but under Medicare you will be billed for a non-referred consultation. This means that you will not be reimbursed by Medicare and you will have to pay for the appointment.
- Ask before the appointment for the full cost of each procedure and how much is refunded by Medicare.
- Check if there is a long waiting list. If there is a spot on your skin of particular concern, your GP may be able to request an earlier appointment.
- If you live in regional Australia, there may not be a dermatologist based in your local area. However, many regional areas have visiting dermatologists. Your GP should be able to advise you.
- Many public hospitals in metropolitan cities have dermatology outpatient clinics where care can be provided by specialist dermatologists without charge. Your GP can refer you to these. However, these clinics often have long waiting lists.
Skin cancer clinics
Skin clinics offer a variety of services and fee arrangements. Clinics are usually operated by GPs who have an interest in skin cancer, although some clinics are operated by dermatologists who are specially trained in this area.

Skin cancer clinics may not necessarily offer a higher level of expertise than your family GP. In deciding whether to go to a skin clinic, it is important you find out about the services offered and the expertise of the staff.

Choosing a skin clinic
There are four main points to consider when choosing which skin clinic to attend:
- qualifications and experience of the medical staff
- costs – some clinics bulk bill for the initial consultation but require upfront payment for further appointments or surgery (which may not be refundable by Medicare); others require upfront payment for all appointments
- diagnosis and treatment services offered
- information and follow-up provided.

Cancer Council does not operate or recommend any specific skin cancer clinics or doctors.
Key points

- Although not all skin cancers look the same, you can look out for certain signs, such as a spot or sore that is different from other spots on the skin, that has changed in size, shape or colour, that bleeds or that doesn’t heal.

- Your general practitioner (GP) can examine your skin, treat some cancers and advise you about appropriate care. GPs can also refer you to specialists, if needed.

- A dermatologist is a skin specialist trained in preventing, diagnosing and treating skin diseases.

- You should have a referral from your GP to see a dermatologist but you can make an appointment without one. You may have to pay for your appointment without Medicare reimbursement and sometimes there is a long waiting list.

- Some people go to a skin cancer clinic that is operated by a GP or specialist dermatologist.

- When choosing a skin cancer clinic, consider the staff qualifications, costs and services offered. Cancer Council does not operate or endorse any particular clinics or doctors.

- Your doctor will do a biopsy to determine if the spot on your skin is cancerous. This means some tissue is cut out and examined under a microscope. You may have stitches to close up the wound.

- It takes about a week for the biopsy results to be ready. If you feel anxious about the biopsy or cancer diagnosis, talk to your doctor or call Cancer Council Helpline 13 11 20.
Skin cancer is treated in different ways. This will depend on the type, size and location of the cancer; whether it has spread to other parts of your body; your general health; and any medications you are on (these can affect bleeding and healing time).

**Surgery**  
Surgery is the most common treatment for skin cancer. The operation is usually a quick and simple procedure, but it can be more complicated if the skin cancer is on your face, scalp or lower legs.

The doctor – often a plastic surgeon or a dermatologist – will use a local anaesthetic to numb the area, then cut out the skin cancer leaving an area of normal-looking tissue around it. This tissue is then checked for cancer cells to make sure the cancer has not spread.

The laboratory staff may be able to check the tissue at the time of the surgery if it is performed in a hospital. This is called a frozen section. If tests show the cancer has not been completely removed, sometimes further surgery is needed.

**Skin flap and skin graft**  
A large skin cancer may need a larger area of skin removed. In this case, you may need a skin flap or skin graft to cover the wound. In a skin flap, nearby skin or tissue is taken from an area close to the wound and moved over the wound and stitched. A skin graft is when a shaving or piece of skin from another part of the body is used to cover the area where the skin cancer was removed.
Mohs’ surgery
Mohs’ surgery is a type of surgery that is also known as microscopically controlled excision.

The cancer is removed little by little and the tissue is checked under the microscope before the wound is closed. The removal continues until only healthy tissue remains. This reduces the amount of healthy skin that is removed while making sure all the cancer has been taken out.

Mohs’ surgery is sometimes used to treat large skin cancers that have gone deep (penetrated) into the skin or have come back. It can also be used for cancers in areas that are difficult to treat, such as the skin near the eye.

Mohs’ surgery is not commonly used because it is a highly specialised surgery. It is only available at some hospitals and some private specialist practices. It costs more than other types of surgery.

Curettage and cautery
Curettage and cautery treatment is mainly used for superficial BCCs. A local anaesthetic is given and the cancer is scooped out with a small, sharp, spoon-shaped instrument called a curette. A low-level electric current is then applied (cautery) to stop bleeding and to destroy any remaining cancer. The wound is then covered. It should heal within a few weeks, leaving a pale white scar.
Cryotherapy
Sunspots and superficial BCCs may be treated using a freezing technique called cryotherapy (sometimes called cryosurgery). This technique is not usually used for skin spots close to the eye.

Liquid nitrogen is sprayed onto the abnormal skin spot and a small area of skin around it. It can feel like a stinging sensation when applied. The liquid nitrogen freezes and kills the abnormal skin cells and creates a wound. The wound will be slightly sore and red for a few days and may weep or develop a blister.

After about 10 days, a crust will form on the wound and the dead tissue will fall off. New, healthy skin cells will grow and a scar may develop. Healing can take a few weeks. The main side effect of cryotherapy is a change in skin pigmentation. The new, healed skin will probably look paler and whiter than the surrounding skin.
Immunotherapy

Immunotherapy is a treatment that stimulates the body’s immune system to destroy the cancer.

An immunotherapy cream called imiquimod (Aldara®) is used to treat sunspots and superficial BCCs. It is usually applied directly to the skin cancer. Imiquimod cream doesn’t work for some people. If it’s not effective, another type of treatment will be used.

For superficial BCCs the cream is applied, five days a week, for up to six weeks.

Side effects can include a lot of scabbing and crusting, which can be uncomfortable. The treated skin may become red and inflamed but it is usually not sore. It is important to ask your doctor or pharmacist about how much cream to apply, about potential side effects or if precautions are needed when using the cream.

It is not as common, but some people can have a more serious skin reaction. Side effects may include pain or itching in the affected area, spots on the skin, a high temperature (fever), feeling generally unwell, achy joints, eyesight changes, burning, painful or itchy eye and mouth sores.

If you experience any of these side effects, seek medical advice immediately. Do not use the cream without further advice from your doctor.
Chemotherapy
If chemotherapy is given, it’s normally applied directly on the skin cancer as a cream or lotion. This is called topical chemotherapy. Usually a cream called fluorouracil (Efudix®), also known as 5FU, is used. This treatment is for skin cancers that affect the top layer of skin.

Your doctor or specialist nurse will explain how to apply the cream yourself at home and how often. It may help to place a waterproof dressing over the cream to keep it in place. The treated skin may become red and inflamed but it shouldn’t be painful and will usually wear off within a couple of weeks after treatment has finished.

Photodynamic therapy
Photodynamic therapy (PDT) uses a light source with a cream to treat sunspots and superficial BCCs. The area is gently scraped and a light-sensitive cream is applied to the spot. This is left on for about three hours, and then a light is shone on the area for 7–8 minutes. Afterwards, the treated area is covered with a bandage to protect it from light for 24 hours. You will need to keep the treated area covered and dry. PDT usually needs to be repeated after 1–2 weeks.

Some people experience pain during PDT, particularly if having treatment to the face. Your doctor may use a cold water spray, cold water pack, a cold air blower or give you a local anaesthetic during the PDT to cool the area and to help ease the pain.
Removing lymph nodes

Two skin cancer types (SCC and melanoma) can spread to the lymph nodes (also called lymph glands). Lymph nodes are roughly the size of kidney beans, and are located in the neck, groin, pelvis, stomach and underarms. They are involved in the body’s fight against infection and cancer. If the cancer has spread, the doctor may recommend a lymph node dissection. This means that the cancerous lymph nodes are cut out. This procedure will reduce the chance of the cancer spreading to other parts of the body or coming back. For more information, speak to your doctor.

Radiotherapy

Radiotherapy treats cancer by using x-rays to kill cancer cells. It is usually used in areas that are hard to treat with surgery, such as skin near the eyes, nose or forehead. It can also be used for skin cancers that have grown deeply into the skin.

You will lie on a table while the radiotherapy machine is positioned around you. This can take 10–30 minutes, but the treatment itself will probably only take a few minutes. Radiotherapy sessions are usually given over several weeks. Skin in the treatment area may become red and sore after 2–3 weeks of radiotherapy.

For more information, call Cancer Council Helpline 13 11 20 for a free copy of the *Understanding Radiotherapy* booklet.
Key points

- Sometimes skin cancer can be removed with a biopsy and no further treatment is needed. If some skin cancer remains after the biopsy, you will need further treatment.

- Surgery is the most common and successful treatment for skin cancer.

- The doctor, who may be your GP, a dermatologist or plastic surgeon, will carefully cut out the skin cancer. You will have stitches or the doctor will use some skin from another part of your body (a skin flap or skin graft) to cover the wound.

- Mohs’ surgery, also known as microscopically controlled excision, is a specialised surgery that is only available at a few hospitals in Australia. The surgeon removes layers of cells and checks them under a microscope immediately. The aim is to leave only healthy tissue.

- The doctor may gently remove the cancer with a sharp tool called a curette, and then use a low-level electric current to stop bleeding and destroy any remaining cancer. This is called curettage and cautery.

- Cryotherapy is also used to treat some skin cancers. The doctor sprays liquid nitrogen onto the skin, which freezes and kills the cancer cells.

- Immunotherapy and chemotherapy are used, in the form of creams, to treat skin cancers that affect the top layer of skin.

- Other treatments for skin cancer include light therapy (photodynamic therapy) and radiotherapy, which uses x-rays.

- Sometimes, SCC or melanoma spreads to the lymph nodes and the doctor must remove the affected lymph nodes (lymph node dissection).
Making treatment decisions

Skin cancers can be treated by GPs, dermatologists and plastic surgeons (for more complex surgical treatment). For further information on these specialists, see pages 19–20.

- Be guided by your specialist and then weigh up the advantages and disadvantages of different treatments, including the impact of any side effects.

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

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

- Many people like to have a family member or friend go with them to take part in the discussion, take notes or simply listen.

- You have the right to accept or refuse any treatment offered by your doctors and other health care professionals.

- Before you see the doctor it may help to write down your questions – see the list of suggested questions on page 37.

If you are having difficulty finding a specialist, visit www.cancer.org.au/about-cancer/find-a-specialist.html and click on the Australasian College of Dermatologists link.
A second opinion
You may want to get a second opinion from another specialist to confirm or clarify your doctor’s recommendations or reassure yourself that you have explored all of your options. Specialists are used to people doing this.

Your doctor can refer you to another specialist and send your initial results to that person. You can get a second opinion even if you have started treatment or still want to be treated by your first doctor. You may decide you would prefer to be treated by the doctor who provided the second opinion.

Taking part in a clinical trial
Your doctor 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 promising 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 get a second opinion. If you decide to take part, you can withdraw at any time. For more information, call the Cancer Council Helpline for free resources on clinical trials and research or visit www.australiancancertrials.gov.au.
After treatment: follow-up

Follow up will depend on the type of treatment you have. Some skin cancers require closer monitoring than others. Ask your doctor if you are unsure of your follow-up plan. If your wound doesn’t heal, or if you notice any other skin changes, see your GP, dermatologist or the original surgeon.

Will I get other skin cancers?
If you have been treated for skin cancer, you have a higher chance of developing new skin cancers. Sun damage builds up over the years and can’t be repaired. However, you can prevent further damage to your skin. Follow the steps on page 34, make sun protection a part of your lifestyle throughout the year, not just in summer, and visit your doctor for regular check-ups.

Sun exposure and vitamin D
UV radiation from the sun is the major cause of skin cancer but it is also the best natural source of vitamin D, which is needed to develop and maintain strong and healthy bones. Vitamin D forms in the skin when it is exposed to UV from sunlight.

The amount of sunlight you need to make vitamin D depends on several factors, including the UV level, your skin type and your lifestyle. UV levels vary across Australia, throughout the year and throughout the day. This means, the amount of time you need to be in the sun to get enough vitamin D will be different depending on your location, the season, the time of day, cloud coverage and the environment.
Increasing your sun exposure above the recommended level does not increase your vitamin D levels, but does increase your risk of skin cancer. Short, incidental exposure to the sun, such as walking from the office to get lunch or hanging out the washing, is the best way to maintain adequate vitamin D levels.

Some people are at higher risk of vitamin D deficiency, this includes people with naturally dark skin or particular health conditions, or who take medications affecting vitamin D absorption.

![Sun exposure and vitamin D](image_url)
Protecting your skin

Use a combination of measures to protect your skin from the sun.

- Wear clothing that covers your shoulders, neck, arms, legs and body. The best protection comes from closely woven fabric.

- Check the UPF (ultraviolet protection factor) rating on clothes designed for sun protection. The higher the UPF number, the greater the protection. UPF 50+ gives the best protection.

- Use a sunscreen with an SPF 30 or above and apply at least 20 minutes before going out, as it takes this long to sink into the skin. Reapply every two hours, after swimming or after any other activity that causes you to sweat or rub it off.

- Wear a broad-brimmed hat that shades your face, neck and ears. Adult hats should have at least a 7.5 cm brim.

- Use shade from trees, umbrellas, buildings or any type of canopy. UV radiation is reflective and bounces off surfaces such as concrete, snow, water and sand, causing sun damage even when you think you’re shaded.

- Protect your eyes with sunglasses that meet the Australian/New Zealand Standard AS/NZS 1067:2003 and an Eye Protection Factor (EPF) of 10. Wrap-around styles are best.

- Always protect your skin during the sun protection times indicated by the daily SunSmart UV Alert.

- Do not use solariums, tanning beds or sun lamps, which give off UV radiation.

- Protect babies and children from direct exposure to sunlight. Use sun protection measures when the UV rating is 3 or above.
Cosmetic care
Skin cancer treatments such as surgery, skin flaps or grafts, curettage and cautery, and cryotherapy often leave noticeable scars. In most cases your doctor will do everything possible to make the scar less noticeable. Most scars will fade with time.

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

Practical and financial help
Skin cancer may cause practical and financial difficulties, particularly for people living in the country 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. Call Cancer Council Helpline 13 11 20 or ask the hospital social worker which services are available in your local area and if you are eligible to receive them.
Useful websites

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

### Australian
- Australasian College of Dermatologists .................. [www.dermcoll.asn.au](http://www.dermcoll.asn.au)

### International
- American Cancer Society........................................... [www.cancer.org](http://www.cancer.org)
- Macmillan Cancer Support..................................... [www.macmillan.org.uk](http://www.macmillan.org.uk)
- National Cancer Institute........................................ [www.cancer.gov](http://www.cancer.gov)
You may find this checklist helpful when thinking about the questions you want to ask your doctor about your disease and treatment. If your doctor gives you answers that you don’t understand, ask for clarification.

- What is this spot on my skin?
- Will I need a biopsy?
- What is my biopsy result? Is it a form of skin cancer?
- What type of skin cancer is it?
- Did the biopsy remove all of the skin cancer?
- If it is a skin cancer, what stage is it?
- Do I need further treatment for this skin cancer? If so, what kind of treatment do you recommend?
- Do I need a referral to a dermatologist or plastic surgeon?
- What will happen if I don’t have any treatment?
- How much will the treatment cost?
- Will there be any scarring after the skin cancer has been removed?
- 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

**anaesthetic**
A drug that stops a person feeling pain during a medical procedure.

**basal cell carcinoma (BCC)**
A type of skin cancer that develops in the basal cells of the epidermis (top) layer of the skin.

**basement membrane**
The foundation layer of tissue that cells sit on.

**benign**
Not cancerous or malignant.

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

**cauterity**
A treatment technique that uses electric current to stop bleeding.

**cryotherapy**
The process of freezing and destroying cancer cells.

**curettage**
The surgical removal of a growth 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.

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

**dysplastic naevus**
A mole with irregular shape and patchy colour.

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

**hair follicle**
The sac in which hair grows.

**invasive cancer**
Cancer that has spread deep into tissues at the primary site, and/or to other parts of the body.

**lymph nodes**
Small, bean-shaped structures forming part of the lymphatic system. Also called lymph glands.

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

**malignant**
Cancer.

**melanin**
Brown pigment that gives skin its colour.

**melanocyte**
One of the three cells that make up the skin's epidermis layer. These cells produce melanin.

**melanoma**
Cancer of the melanocytes.

**metastasis**
A cancer that has spread from a primary cancer to another part of the body. Also known as secondary or invasive cancer.
**Mohs’ surgery**
A specialised surgical procedure for removing skin cancers little by little until only healthy cells remain. Also called microscopically controlled excision.

**naevus (plural: naevi)**
A small dark spot on the skin that arises from skin cells called melanocytes. Also called a mole.

**pathologist**
A specialist doctor who interprets the results of tests (such as blood tests and biopsies).

**photodynamic therapy**
A type of treatment using a cream that is activated by a light.

**plastic surgeon**
A surgeon trained in complex aesthetic (appearance) and reconstructive techniques and the surgery of more advanced skin cancer.

**prognosis**
The expected outcome of a person’s disease.

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

**secondary cancer**
A cancer that has spread from the original site to another part of the body.

**skin flap**
Using nearby skin or other tissue to close a wound.

**skin graft**
A piece of skin moved from one part of the body to another to cover the area where the skin cancer was removed.

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

**squamous cell carcinoma (SCC)**
A type of skin cancer that begins in the epidermis.

**superficial skin cancer**
Cancer that only affects cells on the surface of the top layer of the skin. Not invasive.

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

**ultraviolet (UV) radiation**
The invisible part of sunlight that causes skin damage. Also produced by solariums, tanning lamps and sun beds.

**UV Index**
A measure of the intensity of the sun’s ultraviolet radiation.

---

**Can’t find what you’re looking for?**

How you can help

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

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

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

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

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

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

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

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

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

Visit your state or territory Cancer Council website

Cancer Council ACT  
www.actcancer.org

Cancer Council Northern Territory  
www.cancercouncilnt.com.au

Cancer Council NSW  
www.cancercouncil.com.au

Cancer Council Queensland  
www.cancerqld.org.au

Cancer Council SA  
www.cancersa.org.au

Cancer Council Tasmania  
www.cancertas.org.au

Cancer Council Victoria  
www.cancervic.org.au

Cancer Council Western Australia  
www.cancerwa.asn.au
For support and information on cancer and cancer-related issues, call Cancer Council Helpline. This is a confidential service.