Purpose: to provide information on skin cancer risk factors, warning signs and seeking advice from a health professional

Audience: Community

Acknowledgements: Information in this position statement has been adapted from The Australasian College of Dermatologists’ A to Z of Skin: Basal Cell Carcinoma (Dr Chris Kearney); Squamous Cell Carcinoma (Dr Brad Jones); and Melanoma (Associate Professor John Kelly). Additional sources including Cancer Council Australia position statements endorsed by The Australasian College of Dermatologists are indicated.

Endorsement: This position statement has been approved by The Australasian College of Dermatologists Board of Directors.

Disclaimer: This statement reflects the general views of The Australasian College of Dermatologists at the date of release and may be subject to amendment to reflect emerging clinical and scientific evidence. This information provides educational information and is not intended as a substitute for individual patient assessment. Practitioners are advised to interpret and apply recommendations according to the needs and circumstances of each patient.

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Review due: March 2019
Purpose

The Australasian College of Dermatologists provides information, advocacy and advice on dermatological practice in Australia to health professionals, the community and government. Our focus is to train and maintain highly qualified specialists who work to improve outcomes in skin health of individuals and communities.

The purpose of this position statement is to:

- Provide information to the community about skin cancer in Australia
- Raise community awareness of the risk factors for melanoma and non-melanoma skin cancer and encourage individuals to understand their own risk
- Inform the community about the warning signs of skin cancer, how to check one’s own skin, and when and where to seek advice from a health professional.

This statement is a companion document to The Australasian College of Dermatologists Sun Protection and Sunscreen position statement.
Skin cancer in Australia – Key points

- Skin cancers – including melanoma and non-melanoma skin cancer (NMSC) – are the most commonly diagnosed cancers in Australia each year. Incidence of melanoma and the most common NMSCs (basal cell carcinoma [BCC] and squamous cell carcinoma [SCC]) are predicted to continue to rise, placing a substantial burden on Australia’s health care system.

- Skin cancer is primarily a preventable cancer. Using a combination of sun protection measures, Australians can take positive steps every day to reduce their risk of skin cancer. Public awareness campaigns continue to improve sun protection behaviour.

- Survival rates for skin cancer have improved with earlier detection and better treatment options; however survival rates remain low for skin cancers that are diagnosed at an advanced stage. The earlier that skin cancer is diagnosed and treated, the greater the chance of survival.

- It is important to know your personal risk of skin cancer. The single greatest risk factor for skin cancer is excessive exposure to ultraviolet (UV) radiation from the sun or from solariums. Other risk factors include fair skin and hair; a high number of common or unusual moles; a weakened immune system; a family history of melanoma; and previous personal diagnosis of melanoma or NMSC.

- It is important to be familiar with your skin. Perform self-examinations of your whole body, including scalp, hands and feet, with a hand mirror in front of a bathroom wall mirror. Look for changes in:
  - New moles and spots
  - Existing moles which increase in size, change colour or become irregular
  - Any mole or spot that becomes raised, lumpy, scaly or ulcerated
  - Red moles that are firm and enlarging
  - Any mole or spot that itches, bleeds or weeps
  - Any spot that looks different from the others

- GPs remain at the front line of skin cancer detection for most Australians. GPs have the knowledge and skills to perform skin checks and minor procedures, discuss an individual’s skin cancer risk and provide advice on the frequency of surveillance or the need for specialist dermatologist care.

- Dermatologists are specialists trained in the diagnosis and treatment of all skin diseases including skin cancer. People who are at high risk of skin cancer, or who have a suspicious mole or spot which may require more complex care, should be referred to a dermatologist by their GP.

- Dermatologists have expertise in early detection and are trained to recognise and differentiate between changes in the skin that may indicate cancer. Dermatologists have specialist knowledge and experience of the broad range of therapeutic approaches used to treat specific tumour types.

- Dermatologists will work with other medical specialists, such as plastic surgeons, cancer surgeons and medical and radiation oncologists, depending on the patient’s diagnosis and treatment needs. Dermatologists play a central role in skin cancer management and are well placed to ensure that patients receive appropriate, multidisciplinary care when required.

- Skin cancer clinics are practices which are predominantly staffed by GPs with an interest in skin cancer. GPs working in skin cancer clinics may have undergone some additional training, although no special qualifications are required to work in skin cancer clinics. Research has shown that GPs working in general practice and those working in skin cancer clinics diagnose skin cancer with similar accuracy.
ACD Position Statement – Skin Cancer in Australia

Skin cancer – the statistics

Melanoma

Australia and New Zealand have the highest rates of melanoma in the world. In Australia, melanoma is the 4th most commonly diagnosed cancer – in 2017, almost 14,000 new diagnoses of melanoma are estimated, comprising 11% of all cancer diagnoses. Over 1,800 people in Australia are estimated to die from melanoma in 2017.

The number of melanoma cases diagnosed in Australia each year continues to rise. The incidence rate of melanoma almost doubled between 1982 and 2016, increasing from 27 to 49 cases for every 100,000 people. However, this increase applies to older age groups – for people under 40, the rate has dropped from 13 to 9 cases of melanoma for every 100,000.

Melanoma rates differ across Australia’s States and Territories. Queensland has an incidence rate almost 1.4 times greater than the whole of Australia. South Australia and the Northern Territory have the lowest incidence rates relative to the nation (0.76 and 0.67 lower than the national rate, respectively).

Based on 2017 estimates, the risk of being diagnosed with melanoma by the age of 85 is 1 in 17. The risk is greater for men than for woman (1 in 13 compared with 1 in 23).

Survival rates for melanoma have improved. In 2008–2012, a person diagnosed with melanoma had a 90% chance of surviving for 5 years compared with the general Australian population. This is up from 86% in 1983-1987.

Early detection and diagnosis of melanoma is associated with greater chance of survival. For patients with thin tumours and localised disease at diagnosis, the five-year relative survival rate is 96%; this reduces to 63% for regional disease and 34% for metastatic disease. Fortunately, approximately 80% of melanomas are diagnosed at an early stage. Improvements in detection and treatment are needed to reduce the substantial morbidity and mortality associated with advanced disease.

Non-melanoma skin cancer (NMSC)

The two most common forms of non-melanoma skin cancer (NMSC) are basal cell carcinoma (BCC) and squamous cell carcinoma (SCC).

NMSC is estimated to account for more cancer cases in Australia than all other cancers combined. However, the actual number of NMSC diagnosed in Australia is not known, because diagnoses of these cancers are not required to be reported to State/Territory cancer registries apart from Tasmania. A national registry for NMSC would help to accurately identify the extent of the disease and track progress against national cancer control efforts.

A national survey of NMSC reported the number of NMSC cases in Australia in 2002 was estimated to be 374,000 or almost 1,200 cases per 100,000 people – meaning there were more cases of NMSC diagnosed in Australia than for all other cancers combined.

A study of Medicare data showed that while the Australian population increased by 22% between 1997 and 2010, the number of NMSC treated during this time increased by 86%. It was estimated that the number of NMSC treatments would increase by a further 22% between 2010 and 2015.
Risk factors for skin cancer

The single greatest risk factor for skin cancer is **excessive exposure to ultraviolet (UV) radiation** from the sun or from solariums. UV radiation can damage DNA in skin cells, causing mutations. Over time, mutations caused by excessive UV, such as from childhood sunburn or long-term occupational exposure, can accumulate and trigger changes in skin cells that can lead to cancer.

Other known risk factors for skin cancer include:

- **Skin and hair pigmentation**: Melanin – the protein in skin and hair that gives it a darker colour – offers some natural protection against UV radiation; skin cancer is less common in people with darker skin. People with a fair complexion, freckles, blue or green eyes, or red or blonde hair, such as those with Celtic ancestry, have lower amounts of melanin, putting them at a higher risk of skin cancer.

- **Moles**: Having a high number of common moles (greater than 100); or having an increased number of unusual moles (dysplastic naevi) which can be large, smudgy, have an ill-defined border, uneven colour, irregular shape or some pinkness is associated with higher rates of melanoma.

- **Having a depressed immune system**: Some diseases or drug treatments taken as part of medical care can prevent the immune system from functioning properly. People who are immunosuppressed, such as solid organ transplant recipients, have a higher risk of NMSC and melanoma.

- **Family history**: A person with a first degree relative (mother, father or sibling) who has had a melanoma diagnosis has a greater risk of melanoma.

- **Previous personal diagnosis**: People who have been diagnosed and treated for melanoma or NMSC have a greater risk of additional diagnoses.6,9,10,11,12

In Australia, skin cancer is more common in men and in older people,3,6 potentially due to greater lifetime UV exposure.

People with strong or multiple risk factors for melanoma should have their skin checked by a dermatologist. The dermatologist will recommend how often they should visit and whether they should continue to be checked by a dermatologist or a GP.
Types of skin cancer

Melanoma

Melanoma starts in pigment cells of the skin, called melanocytes. Up to 75% of melanomas begin as a new spot, though some arise from an existing mole. Melanoma typically begins as a flat, light brown to black spot that resembles a mole. However unlike moles, melanomas will grow progressively larger at a rate that will often be detected over a few months. As they enlarge, changes in shape and colour also progress so that the spot becomes increasingly irregular in shape or variable in colour.9

About 20% of melanomas have little or no pigment and appear predominantly red in colour. Another rarer form is nodular melanoma, which has no flat phase and presents as a lump from the outset.9

Melanomas that are detected while they are still flat are almost always cured by removal. If not detected early, melanoma has the capacity to metastasise – that is, spread through blood and lymph vessels to other parts of the body, including lymph nodes (glands), where they can form secondary tumours known as metastases.9

Non-melanoma skin cancer

NMSC develop in the skin’s top layer, known as the epidermis. The two most common forms of NMSC are basal cell carcinoma (BCC) and squamous cell carcinoma (SCC).

• **BCC** resembles the bottom (basal) layer of the epidermis and is the most common type, making up more than 75% of all skin cancers. BCCs are slow growing, rarely metastasise and are almost always completely cured by treatment. However, if they are left untreated, as they grow they can damage or destroy the skin and surrounding tissues. The location of BCCs is therefore a key consideration in the urgency of treatment.

  BCCs usually start with a subtle change on the skin, either a small bump or a flat red patch. BCCs develop very slowly over months and years, steadily becoming larger and more obvious. Eventually they may appear as a non-healing sore.9

• **SCC** resembles cells in the epidermis above the basal layer. While most SCCs are easily treated, some SCCs metastasise, spreading to the lymph nodes and into other organs. SCCs are associated with higher mortality rates than BCCs.

  SCC usually start as a raised scaly lump on sun-exposed sites and are commonly found on the backs of the hands, forearms, legs, scalp, ears and lips. They can also appear as a crusted sore. On the lips, SCC sometimes looks like a persistent small ulcer or thickened firm scaly skin.

  Some SCCs develop rapidly with cancerous changes occurring over a few months. Others progress slowly over the years, developing from a red scaly sun spot that slowly thickens and enlarges. These may become an intraepidermal carcinoma (Bowen’s disease) – present in the thin top layer of the skin – and can progress further to become a fully developed SCC involving the deeper layers of the skin.9
Skin cancer – what to look out for

It is important to know your own skin so you can watch out for new or changing skin spots.

Everyone is encouraged to perform self-examination at the start of every season and to check their family or partners’ skin. Check your entire body and scalp with the help of a hand mirror in front of a bathroom wall mirror. Make sure to check areas including those that are not exposed to the sun, such as soles of the feet, between fingers and toes and under nails.\textsuperscript{12}

Changes to look for include:

- New moles and spots
- Existing moles which increase in size, change colour or become irregular
- Any mole or spot that becomes raised, lumpy, scaly or ulcerated
- Red moles that are firm and enlarging
- Any mole or spot that itches, bleeds or weeps
- Any spot that looks different from the others.\textsuperscript{12}

For melanoma, an easy way to remember what to look out for is by using the ABCDE melanoma detection guide.\textsuperscript{12}

- Asymmetry – Spots that lack symmetry
- Border – Spots with an uneven or irregular edge/border
- Colour – Blotchy spots with different colours (light and dark brown, black, blue, red, white and grey)
- Diameter – Spots that increase in size
- Evolution – Spots that evolve or change over time in size, shape or colour
Pathways for skin cancer prevention and care

When should I go to a GP?

GPs remain at the front line of skin cancer detection. GPs have the knowledge and skills to perform skin checks, discuss an individual’s skin cancer risk and provide advice on the frequency of surveillance or the need for additional specialist medical care. As GPs represent the first line of patient care, they are encouraged to undertake upskilling and continuing medical education in skin cancer surveillance and management.

GPs are the appropriate coordinator of primary patient care. A GP will have an overarching view of a patient’s medical history, previous treatments and relevant morbidity, as well as any other factors which may impact a patient’s health.

Under Medicare, GPs can take biopsies – removal of a small piece of tissue – to confirm a diagnosis of skin cancer, and perform minor excisions and other treatment options. Biopsies are best performed when the suspicious spot is in a location where excision is difficult, such as close to nerves or other structures.

GPs should refer certain patients, such as high risk patients or those with suspicious or confirmed lesions requiring more complex care, to a specialist dermatologist for a skin check, assessment or treatment. Any patient can ask for a referral to see a dermatologist if they are concerned about skin cancer.

What is a skin cancer clinic?

Skin cancer clinics are practices which are predominantly staffed by GPs with an interest in skin cancer. GPs working in skin cancer clinics may have undergone some additional training, although no special qualifications are required to work in these practices.

Patients can attend skin cancer clinics for a skin check as, like standard GP practices, they provide a primary service and no referral is needed. There is no requirement for skin cancer clinics to report outcomes from a patient’s visit back to their regular GP. Going to a skin cancer clinic for a skin check and to a GP for other health concerns results in a patient having multiple primary care providers.

This differs from a GP referral to a specialist dermatologist, where the specialist will provide information back to the referrer, allowing for better continuity of care.

Research has shown that GPs working in general practice and those working in skin cancer clinics diagnose skin cancer with similar accuracy. There are no GP qualifications in skin cancer education and training that are accredited by the Australian Medical Council (AMC) – the national body that accredits medical colleges and the training of interns, registrars and specialists. The AMC is accountable to the Medical Board of Australia.

When should I go to a dermatologist?

Dermatologists are specialists trained in the diagnosis and treatment of all skin diseases including skin cancer. People who are at high risk of skin cancer or who have a suspicious mole or spot requiring expert assessment should be referred to a dermatologist by their GP.

Detection and early diagnosis of skin cancer leads to a greater chance of survival. Studies show dermatologists have greater skin cancer diagnostic accuracy than non-dermatologists. The specialist training and clinical experience means dermatologists are able to better recognise and differentiate between changes in the skin.
which may indicate cancer. This translates to a greater efficiency in skin cancer diagnosis and a reduction in the number of unnecessary biopsies and excisions, and as a result fewer adverse effects associated with excision and wound repair. Dermatologists are extensively trained over four years and have expertise in skin surgery techniques and the specific treatment approaches for different tumour types, resulting in improved skin cancer outcomes.

Depending on the patient’s requirement for specialist care, dermatologists will refer to dermatology sub-specialists for Mohs surgery, to other medical specialists such as plastic surgeons, cancer surgeons, medical and radiation oncologists, or to a hospital melanoma unit. Dermatologists play a central role in skin cancer management and are well placed to help patients navigate the healthcare pathway to ensure that they receive appropriate, multidisciplinary skin cancer care.

What is Mohs surgery?

Mohs surgery is performed by dermatologists who have undertaken further Australasian College of Dermatologists (ACD)-endorsed fellowship training in Mohs surgery, histopathology and skin reconstruction. The ACD maintains a register of recognised dermatologists who practice Mohs surgery. To remain on this list doctors are required to complete ongoing medical education and quality assurance program activities.

Mohs surgery gradually removes tumours in small slices, immediately examining each slice by pathology until they have removed all cancerous tissue. The surgery occurs over the course of a day and the excision is repaired on the same day. This method ensures the highest cure rate for BCC and SCC and is generally most appropriately used on the head and neck.

Mohs surgery incorporates each step of this process - the excision, the pathology and the repair – all of which are performed by the dermatologist.

References to ‘slow Mohs’, or closure of wounds on subsequent days, are not Mohs surgery. There are however certain circumstances where a dermatologist performing Mohs surgery may delay repair, such as for very large or complex excisions or when cooperation with other surgical sub-specialities such as reconstructive plastic surgeons or oculoplastic surgeons is required.
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References and further information


Contributors: Dr Chris Kearney; Dr Brad Jones; Associate Professor John Kelly


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