

SKIN CANCER AWARENESS PROGRAM

Helping Australians enjoy the sun safely

a university for the **real** world[®]



It's never too early to start
with good sun habits.





Skin cancer is one of the most significant health issues in Australia. Our high levels of ultraviolet radiation from the sun combined with our outdoor lifestyle make Australians particularly vulnerable to this disease.

Queensland University of Technology established AusSun in 2004 to investigate factors leading to the development of skin cancer, and since then has obtained over \$6.8 million in competitive research funding both from the Australian and United States governments.

We at AusSun are committed to translating our research into practical, real-world messages for all in the community and our Skin Cancer Awareness Program is our flagship community program.

WELCOME

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Director, QUT AusSun

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The QUT Skin Cancer Awareness Program

The QUT Skin Cancer Awareness Program was launched in October 2009 by the Queensland Deputy Premier and Minister for Health, Paul Lucas MP, to help Queensland shed its 'skin cancer capital of the world' title.

The program allows participants to have a facial image taken by a special camera that depicts UV damage and aims to encourage increased awareness of personal sun exposure and reduce skin cancer risk.

This awareness campaign has a powerful effect on most people because you receive an individualised message about your own personal level of sun exposure.

These images have a far greater impact than any number of arguments or statistics, and we are visiting as many schools and community groups as we can to provide an opportunity for personal visual evidence of sun exposure.

A group of five young people, three men and two women, are captured in a moment of pure joy, jumping or falling backwards with their arms outstretched and mouths wide open in laughter. They are dressed in casual, brightly colored clothing: a light green t-shirt, a blue t-shirt, a yellow t-shirt, a pink t-shirt, and a red t-shirt. They are all wearing blue jeans. The background is a solid, clear blue sky, suggesting a sunny day outdoors. The overall mood is one of carefree happiness and youthful energy.

Did you know?

Skin cancer is largely preventable.

AusSun translates its research from the laboratory to the community via skin cancer awareness programs that deliver a powerful message about making a real difference to the health of Australians.



Who is AusSun?

AusSun is based in the Faculty of Health at Queensland University of Technology (QUT) and leads the National Health and Medical Research Council (NHMRC) funded Centre of Research Excellence in Sun and Health. AusSun is also a member of the Institute of Health and Biomedical Innovation (IHBI).

We are one of the leading centres for skin cancer and Vitamin D research in Australia. We investigate how much ultraviolet radiation (UV) Australians are being exposed to and at what point they are in danger of developing skin cancer, or if they are at risk of low Vitamin D status.

AusSun works with workplaces, schools, community groups and corporate organisations to undertake tailored skin cancer awareness and prevention programs to help people understand how and when to protect themselves from the sun, and how to obtain appropriate levels of Vitamin D.

This grassroots campaign provides people of all ages with an effective and personalised warning about protecting their skin. Anecdotal evidence suggests that people who see the sun damage on their own faces are highly motivated to take on board the sun safety message, perhaps for the first time in their lives.

For more information go to **www.uv.qut.edu.au**



What is skin cancer?

There are three forms of skin cancer that are most common: basal cell carcinoma, squamous cell carcinoma, and melanoma. Skin cancers (including melanoma) are predominantly caused by overexposure to ultraviolet radiation.

Types of skin cancer

What causes skin cancer?

The major cause of skin cancer is too much exposure to ultraviolet (UV) radiation from the sun. Skin can burn in as little as 15 minutes in the summer sun so it is important to protect yourself.

Basal Cell Carcinoma (BCC)

The most common of all skin cancers are basal cell carcinomas (BCC). They are most common in adults aged over 40, but can develop in younger people. They occur typically on the head, neck and upper body, but some appear on the arms and legs—sites that are usually exposed to sunlight. BCCs are small, round or flattened in shape; red, pale or

pearly in colour; grow slowly and don't usually spread. However, BCCs may go deeper into the skin if not treated, and damage nearby tissue. Normally, this skin cancer is the most easily treated.

Squamous Cell Carcinoma (SCC)

Squamous cell carcinomas (SCC) usually appear on sites regularly exposed to the sun. They appear as thickened, red, scaly spots, which later may bleed easily, be tender or even painful. SCCs grow quickly and can spread to other parts of the body, especially when originating on the ears or lips, and should be treated immediately.

Melanoma

The most dangerous of all skin cancers are melanoma. It can appear at any age and on any part of the body including an area not exposed to the sun. Melanoma can usually be treated successfully when diagnosed early. They are noticed as new spots, or a change to an existing freckle or mole that increases in size, or alters in shape or colour. Melanoma have an irregular edge or surface, are blotchy and may be brown, black, blue, red, white or light grey. Melanoma may itch or bleed, and changes are usually noticed over time.

Remember to apply sunscreen frequently if outdoors.





Do you have skin damage?

Our camera uses special software to adjust the difference between UV and normal light photographs. From this we can highlight skin damage caused as a result of exposure to UV radiation. The damage is shown in the images as darker areas, similar to freckles, but not visible to the naked eye.

UV damage occurs when melanin, the pigment responsible for the colour of your skin, forms 'freckles', naked to the visible eye, under the skin.

How the UV camera works

How does the UV camera work?

The camera scans your face and captures information about your skin's appearance — particularly the UV spots, blood flow, texture and wrinkles.

The imaging of your face will normally take no more than one minute with your eyes shut. Two images will be taken — the first image in normal light and the second image will capture your sun exposure. The camera is safe for your eyes and your face. Ideally your face should be clean and make-up free with hair pulled away from the forehead.

After your image is taken by the camera it will be printed immediately and is yours to keep. At the end of our visit your image is deleted.

What do the spots on the image mean?

The camera does not depict, detect nor diagnose any form of skin cancer. The UV spots are simply the way our skin reacts to sun damage as a result of our genetic makeup, skin type, and accumulated sun exposure. Each person is therefore unique in their UV damage history.

Now I have seen my image, I am concerned, what should I do?

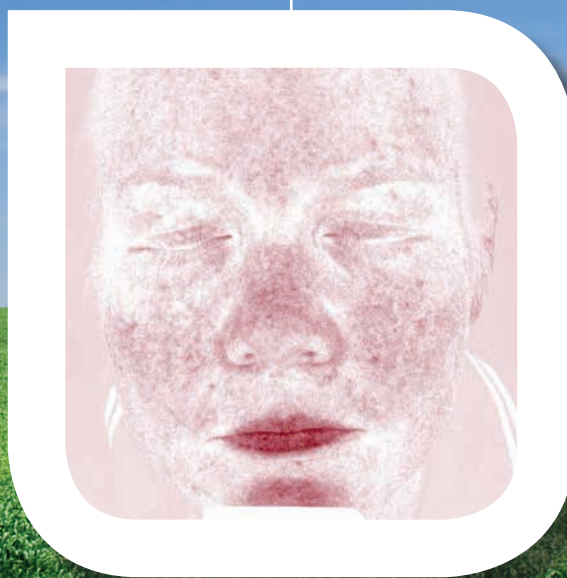
Your UV image is for educational purposes only and it does not replace qualified medical advice. We cannot provide medical or professional advice about the interpretation of the image or provide

diagnosis of any disease or medical condition. It is recommended that you consult a medical specialist about the condition of your skin generally, or if you have any concerns. Feel free to take your UV image to your appointment.

Regular



Red areas



UV damage



Forehead If this part of the face is usually covered by a fringe, or the shade of a hat, we tend to see less UV damage.

Nose and cheeks These parts of the face are highly exposed to UV radiation and often show the most UV damage of any other part of the face. It is important to protect these areas with a broad-brimmed hat and apply sunscreen every day (or daily moisturiser with sunscreen).

Eyebrows and eyes The eyebrows offer some protection from UV radiation and this results in less UV damage visible on the UV image. People who wear glasses (reading or sun glasses) will see a lighter area on the bridge of the nose where the glasses rest. Despite this protection, it is still very important to wear sunglasses when exposed to the sun as eyes are vulnerable to sun-induced cataracts.

What does my UV image show?

What does the red image mean?

This image shows the blood flow underneath the skin. Red areas represent a variety of conditions such as acne, inflammations, Rosacea or spider veins. Some areas may be a result of excessive sun exposure. You will notice your lips are very red as this is because of blood flow in the area.

Why can't I see any sun damage in my image?

Sometimes as we age, our skin, in response to UV radiation, thickens. This thickening of the outer layers of the skin is the body's protective

mechanism against further UV radiation exposure. As the camera relies on light to enter the skin to view sun damage, sometimes we are unable to view sun damage on people with sun exposed, thickened skin. This usually is the case for older people with high amounts of lifetime sun exposure.

I have lots of sun damage. What can I do?

Awareness is the key. Understanding that your skin has accumulated damage due to sun exposure is an important alert and serves as a reminder to protect yourself when outdoors. If you are concerned about the condition of your skin it is recommended that you consult a medical specialist.

Does the sun damage eventually fade or go away?

Typically not.

What should I do with my sun damage image now?

Put it on the fridge! Use this photograph to remind yourself to protect your skin when going outdoors. Show it to your family and friends and let them know how to protect themselves from UV damage.

- Skin cancer is the most common form of cancer in Australia, with 80 per cent of all cancers diagnosed in Australia being skin cancer.
- Queensland has the highest rate of skin cancer in the world.
- Two in three Australians will be diagnosed with skin cancer by the time they are 70.
- Around 434 000 Australians are treated for non-melanoma skin cancer annually—which is more than 1000 people every day.

Skin cancer fast facts

- Approximately 133 000 non-melanoma skin cancer cases are diagnosed in Queensland each year.
- More than 10 000 Australians are treated for melanoma and more than 1200 Australians die from melanoma each year.
- Skin cancer appears to be increasing rapidly in Australia.
- Nearly 750 000 suspected skin cancers are removed in Australia annually.



Did you know?

Australia has one of the highest incidences of skin cancer in the world, at nearly four times the rates in Canada, the US and the UK.

It is recommended that you use all of the following sun protection measures:

- Minimise time in the sun between 10am and 3pm.
- Seek shade provided by trees, buildings or temporary shade structures wherever possible.
- Wear suitable clothing that provides good sun protection. Clothes that are dark in colour and fabrics with a close weave provide the most effective form of sun protection.

Prevention of skin cancer

- Hats with a broad brim or in a legionnaire or bucket style provide the best coverage protecting the face, neck and ears. Hats should be of a dark colour under the brim to minimise reflection and a close fabric weave is also recommended.
- Wearing sunglasses minimises the risk of eye damage from ultraviolet radiation. Sunglasses sold in Australia must conform to the Australian Standard AS/NZ 1067:2003.
- SPF30+ broad-spectrum water resistant sunscreen should be applied 20 minutes before going out in the sun.

Who is at risk of skin cancer?

It is important that you regularly examine your skin for signs of skin cancer, especially if you are in the older age group and/or have sun-damaged skin or multiple moles and freckles.

People most at risk of skin cancer are:

- People with fair skin and blue eyes (they have the least amount of melanin)
- People with a lot of outdoor exposure – such as farm workers, construction workers and people working on fishing boats
- Urban indoor workers who spend weekends or holidays in the sun
- People who were sunburnt or had high levels of exposure to the sun as children (exposure to sun in childhood and adolescence does the most damage)

While some people have a greater risk than others do, it is important to understand that everyone is at risk of skin cancer.



Your sun damage print out is produced for educational purposes only and it does not replace qualified medical advice. Queensland University of Technology cannot provide medical or professional advice about the interpretation of the image, or provide diagnosis of any disease or medical condition. It is recommended that you consult a medical specialist about the condition of your skin generally, or if you have any concerns.



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Cancer Council Australia www.cancer.org.au

Sun Smart www.sunsmart.com.au