

## Sunburn

Sunburn is the skin's reaction to the ultraviolet radiation (UV) in sunlight. You can see sunlight and feel heat (infrared radiation), but you can't see or feel UV radiation. It can damage your skin even on cool, cloudy days. Sunburn can occur in minutes and can take a few days or weeks to heal depending on the severity.

Mild sunburn can be treated at home, but severe and blistered burns need prompt medical attention. The long-term effects of repeated bouts of sunburn include premature wrinkling and increased risk of skin cancer, including melanoma. Once skin damage occurs, it is impossible to reverse. This is why prevention is much better than cure.

Use sun protection whenever the UV Index level reaches 3 and above. Remember to 'slip, slop, slap, seek and slide' – slip on a shirt, slop on SPF 30+ sunscreen, slap on a broad-brimmed hat, seek shade and slide on some sunglasses.

### Symptoms

The symptoms of sunburn include:

- Change in skin colour, ranging from pink to red and even purple
- Skin feels hot to the touch
- Pain
- Swelling
- Fluid-filled blisters that may itch and eventually pop or break
- Broken blisters peel to reveal even more tender skin beneath.

### Australians and sunburn

In Australia, sunburn can occur in as little as 15 minutes on a fine summer's day. Long-term sun exposure and repeated bouts of sunburn cause skin cell damage, which can lead to the development of skin cancer. Every year 1,600 Australians die from skin cancer.

According to a National Sun Protection Survey, the number of adults reporting they had been sunburnt dropped by almost one-third between 2004 and 2007. Yet there was no change among adolescents – one in four teenagers are still getting burnt. This is not because they are deliberately trying to get a tan, but because they are forgetting to protect themselves. Boys are more likely to get sunburnt than girls, as more boys spend time outside in peak UV times and they are less likely to use sunscreen.

### UV radiation and its effects

In addition to light and heat, the sun puts out invisible ultraviolet radiation. UV radiation can pass through light cloud. It can also be scattered in the air and reflected by surfaces such as buildings, concrete, sand, snow and water. The three types of ultraviolet (UV) radiation, based on their wavelength, are UVA, UVB and UVC. The earth's atmosphere absorbs nearly all of the most dangerous type – UVC – before it reaches the ground.

UVA and UVB radiation are both involved in sunburn, but skin reacts differently to each one:

- **UVA** – penetrates into the deeper skin layers and damages the site where new skin cells are born. Wrinkles, age spots and sagging skin are the results of long-term exposure to UVA radiation.
- **UVB** – affects the surface skin layer. The skin responds by releasing chemicals that dilate blood vessels. This causes fluid leakage and inflammation – better known as sunburn.

### UV and vitamin D

Although it is the major cause of skin cancer, UV-B radiation from sunlight is also our best source of vitamin D. Vitamin D is essential for helping our bodies absorb calcium, which protects against conditions such as osteomalacia and rickets. A sensible balance of sun protection and exposure is the best approach.

### **SunSmart daily UV alert**

UV radiation levels vary depending on location, time of year, time of day, cloud coverage and the environment. Sun protection is recommended whenever the UV Index level reaches 3 and above. At that level, UV radiation can damage skin and eyes. It may also cause skin cancer, including the dangerous malignant melanoma. When UV levels are below 3, most people in Victoria do not require sun protection unless they are in alpine regions or near highly reflective surfaces such as snow or water.

To check the UV levels for the day, go to the SunSmart UV Alert. There is a SunSmart UV Alert for over 300 cities across Australia. You can find them in the weather section of your daily newspaper or visit [www.bom.gov.au/announcements/uv/](http://www.bom.gov.au/announcements/uv/)

### **Self-help remedies**

There is no cure for sunburn except time and patience. Treatment aims to help manage the symptoms while the body heals. Suggestions include:

- Drink plenty of water, because you're probably dehydrated as well as sunburnt.
- Gently apply cool or cold compresses. Alternatively, bathe the area in cool water.
- Avoid using soap, as this may irritate your skin.
- Don't apply butter to sunburnt skin.
- Talk to your local pharmacist about products available that help to soothe sunburn. Choose spray-on solutions rather than creams you have to apply by hand.
- Don't pop blisters. Consider covering itchy blisters with a wound dressing to reduce the risk of infection.
- Pain permitting, moisturise the skin. This won't stop the burnt skin from peeling off, but it will help boost the moisture content of the skin beneath.
- Take over-the-counter painkillers, if necessary.
- Keep out of the sun until every last sign of sunburn has gone.

### **Peeling skin**

There's no cream or lotion that will stop burnt skin from peeling off. This is part of the natural healing process. Suggestions include:

- Resist the temptation and don't pick at the skin. Allow the dead skin sheets to detach on their own.
- Remove detached skin carefully and slowly. Don't rip skin sheets off or you risk removing more skin than you intended.
- Apply antiseptic cream to the newly revealed skin to reduce the risk of infection.

### **Professional treatment**

You should see your doctor or seek treatment from your nearest hospital emergency department if you experience symptoms including:

- Severe sunburn with extensive blistering and pain
- Sunburn over a large area
- Headache
- Nausea and vomiting
- Fever
- Dizziness or altered states of consciousness.

### **Prevention is best**

Always check the SunSmart UV Alert and use sun protection whenever the UV Index level is 3 and above. Cover up with clothing, apply SPF 30+ sunscreen to unprotected skin, wear a broad-brimmed hat and sunglasses, and use shade wherever possible.

Other suggestions on how to avoid getting sunburnt include:

- Be particularly careful during the middle of the day, between 10am and 3pm, when UV Index levels are most intense.

- Don't assume that sunshine is 'safe' when it doesn't sting your skin – that sting or 'bite' you can feel is infrared radiation (heat), not UV radiation.
- UV radiation levels aren't linked to temperature, so don't just 'slip-slop-slap-seek-slide' on hot days.
- Many Australians get sunburnt around water, at the beach or pool. If there is no shade, you'll need to protect yourself in other ways. Water is also an efficient reflector of UV radiation – beware of getting sunburnt on the head and face during water, beach and pool activities.
- You can get sunburnt when you're relaxing and taking it easy, such as watching outdoor sports or picnicking at the park, as well as while playing sports yourself.
- Winter activities, such as snow skiing and snow boarding, pose a high risk of sunburn because UV radiation is more severe in alpine regions than at sea level. Snow is also very efficient at reflecting UV radiation.
- Don't be fooled into thinking that solariums are a safe way to tan. There is no 'safe' tan.
- What many people assume is windburn is actually sunburn. The wind doesn't burn the skin, UV radiation does.
- A tan offers a small amount of sunburn protection (around SPF 3), but doesn't protect against DNA damage from ultraviolet radiation.
- Always try to keep babies and children in the shade and use clothing to cover most of their body. Use small amounts of child-friendly sunscreen on uncovered areas such as the face and hands whenever your child is exposed to the sun.

### Where to get help

- Your doctor
- Your local pharmacist
- Nurse-on-Call Tel. 1300 606 024 – for expert health information and advice (24 hours, 7 days)
- The Cancer Council Helpline Tel. 13 11 20
- SunSmart [www.sunsmart.com.au](http://www.sunsmart.com.au)
- Multilingual Cancer Information Line, Victoria – see website for contact details [www.cancervic.org.au/other\\_languages](http://www.cancervic.org.au/other_languages)

### Things to remember

- Sunburn can occur in less than 15 minutes and can take a few days or weeks to heal depending on the severity.
- There is no cure for sunburn except time and patience.
- Mild sunburn can be treated at home, but severe and blistered burns need prompt medical attention.
- Excessive exposure to UV damages the skin permanently and may cause skin cancer, including the dangerous malignant melanoma.

**This page has been produced in consultation with, and approved by:**

Cancer Council Victoria

**Copyright** © 1999/2009 State of Victoria. Reproduced from the Better Health Channel ([www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au)) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.

- This Better Health Channel fact sheet has passed through a rigorous approval process. For the latest updates and more information visit [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au).