Sunscreen

On days when the UV Index is forecast to be 3 or above, apply SPF30 (or higher) broad-spectrum, water-resistant sunscreen to any skin not covered by clothing as part of your daily routine. During sun protection times, combine sunscreen use with clothing, a hat, shade and sunglasses.

The free SunSmart app tells you the sun protection times for your location and provides current UV levels. Sun protection times can also be found on the SunSmart and Bureau of Meteorology websites. Live UV levels and sun protection times are also available from ARPANSA.

What is SPF?

The SPF rating indicates the amount of UVB radiation that potentially reaches the skin if the sunscreen is applied according to directions. For example, SPF30 is estimated to filter 96.7% of UV radiation with 1/30th (3.3%) of UV reaching the skin. SPF50 is estimated to filter 98% of UV radiation with 1/50th (2%) reaching the skin. The difference between SPF30 and SPF50 is marginal (1.3%).

What does 'broad-spectrum' mean?

There are different types of UV radiation. Broad-spectrum sunscreen filters both UVA and UVB radiation.

UVA radiation penetrates deep into the skin, affecting the living skin cells that lie under the skin's surface. UVA causes long-term damage like wrinkles, blotchiness, sagging and roughening, and also contributes to skin cancer.

UVB radiation penetrates the top layer of skin and is the main cause of skin damage and skin cancer.

The Australian Standard (AS/NZS 2604:2012) states that a sunscreen listed as 'broad-spectrum' must have a minimum UVA protection of at least 1/3 of its SPF claim, e.g. a sunscreen labelled SPF50+ is estimated to filter 94% UVA radiation. SPF30+ sunscreen is estimated to filter 90% UVA radiation.

How does sunscreen work?

UV radiation is invisible energy from the sun and the main cause of skin cancer. Sunscreen ingredients work by either scattering or absorbing UV radiation to stop it reaching the skin. Because sunscreen helps prevent UV radiation reaching the skin, it helps prevent DNA damage which leads to skin cancer.

Applying sunscreen

It is recommended that sunscreen is used as part of your morning routine on days when UV is forecast to reach 3 or above.

In addition, when heading outdoors, apply sunscreen 20 minutes before you go outside and re-apply every two hours. Use a generous amount of sunscreen. The average-sized adult should apply at least a teaspoon of sunscreen to each arm, each leg, the front and back of the torso and one to the head and neck. That is at least 35 ml of sunscreen for one full body application, for an average-sized adult.

Many Australians apply too little sunscreen and forget to re-apply every two hours. This means they usually get less than half the protection stated on the label.

Sunscreen can be easily wiped off, lost through perspiration and is often applied unevenly in the first place. Putting on more sunscreen every two hours helps keep you protected. Always reapply after swimming or water sports.

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Even though a sunscreen label may state 4-hour water-resistance, always apply sunscreen 20 minutes before you go outside and reapply every two hours you are outside. All new sunscreen labels should include this information (Australian Regulatory Guidelines for Sunscreens: www.tga.gov.au/book/4-labelling-and-advertising).

Which sunscreen should I use?

Choose a sunscreen that best suits your skin type and activity and that you find easy to reapply. Sunscreen can be bought as a cream, lotion, milk or gel. Price is no indication of quality. Make sure the sunscreen you choose is at least SPF30, broad-spectrum and within its use-by date.

If you have sensitive skin and have had a reaction to a sunscreen, try a fragrance-free product. If you don't want sunscreen residue to remain on your hands, a gel may work best for you.

Not all sunscreens contain the same ingredients. If you are concerned about reactions to sunscreen, Cancer Council recommends performing a usage test before applying a new sunscreen. Apply a small amount of the product on the inside of the forearm for a few days to check if the skin reacts, prior to applying it to the rest of the body.

While the usage test may show whether the skin is sensitive to an ingredient in the sunscreen, it may not always indicate an allergy, as this may also occur after repeated use of the product. As with all products, use of any sunscreen should cease immediately and medical attention should be sought if any unusual reaction is observed. Professional assessment and testing by a dermatologist may be useful to identify the ingredient in the sunscreen that is causing the reaction

Sunscreen and babies

The widespread use of sunscreen on babies under 6 months old is not recommended. Physical protection such as shade, clothing and broad-brimmed hats are the best sun protection measures. If babies are kept out of the sun or well protected from UV radiation by clothing, hats and shade, then sunscreen only needs be used occasionally on very small areas.

In these cases, choose a sunscreen that is suitable for babies such as a sensitive or toddler sunscreen. These are just as protective, but much gentler on their skin.

Sensitive and toddler sunscreens usually use scattering ingredients such as zinc oxide and avoid ingredients and preservatives that may cause reactions in young skin.

You could also ask your maternal and child health nurse, pharmacist or doctor for advice.

It is recommended you do a usage test on a small area of the child's skin to check for any skin reactions to the sunscreen.

How long can you keep sunscreen?

Check the expiry date and storage conditions on the label. Most sunscreens last about two to three years. They should be stored below 30ºC. If left in excessive heat (e.g. in the glove box of a hot car or in the sun on the beach), over time, the product may not be effective.

Is sunscreen safe to use?

There is clear evidence that regular use of sunscreen helps to prevent skin cancer. Long-term studies of sunscreen use in Australia have found no harmful effects of regular use.

The Therapeutic Goods Administration regulates sunscreens in Australia to ensure they are safe and effective.

Sunscreen use and vitamin D

Regular use of sunscreen during sun protection times should not lead to vitamin D deficiency. Sunscreen tested in laboratory conditions does block vitamin D production, however regular use in real life has been shown to have little effect on vitamin D levels. This is because people don't usually use enough sunscreen, so UV can still reach the skin. People who do use sunscreen tend to spend more time in the sun, so are more likely to have higher vitamin D levels.

More information and resources

UV-protective clothing and accessories can be purchased at the Cancer Council Victoria's shop or online at cancervic.org.au/store.

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