



# SUN AWARENESS

SUN PROTECTION & UV DAMAGE



Enjoying time in the sun while soaking up some vitamin D has health benefits, however, spending too long in the sun can be damaging. Ultraviolet rays can cause eye damage, skin damage, premature aging and increase cancer risk.

More than 90% of skin cancer is caused by sun exposure. The incidence of non-melanoma and melanoma skin cancers have been increasing over the last twenty years, with approximately 3 million non-melanoma skin cancers and 132,000 melanoma cancers now occurring globally every year.

This month we look at sun awareness, highlighting the risks of overexposure to the sun and exploring some tips for enjoying the sun safely.

## WHAT IS ULTRAVIOLET RADIATION?

Ultraviolet (UV) radiation from the sun can damage skin within 15 minutes. There are two types of UV radiation which can be harmful, Long-wave ultraviolet A (UVA) and Short-wave ultraviolet B (UVB).

**UVB** rays are the main cause of sunburn, damaging the skin's epidermal layers. They contain more energy than UVA rays and are thought to cause most skin cancers.

**UVA** rays penetrate the skin deeper than UVB rays, and are associated with wrinkling and aging.

A third type of UV radiation, short-wave ultraviolet C or UVC rays, are unable to penetrate our atmosphere's ozone layer.

The strength of a UV ray when it reaches the earth's surface depends on:

**Time of day:** UV rays are generally strongest between 10 am and 4 pm, although this can differ depending on where in the world you are situated.

**Season:** UV rays are strongest during spring and summer. Closer to the equator, rays may be stronger throughout the year.

**Altitude:** At higher altitudes more UV rays reach the earth's surface.

**Surface reflections:** UV rays reflect off water, sand and snow, increasing UV exposure.



### Did you know?

*Exposure to UV radiation is the main cause of skin cancer.*

### The UV Index

The UV Index measures the level of UV radiation that is expected to reach the earth's surface on a particular day. When the UV Index is 3 or above, UV radiation is strong enough to cause sunburn and damage the skin.

It is good practice to consult the UV Index for your location, before going out in the sun. UV index forecasts are widely available on local weather websites.



### Did you know?

*A higher UV index means a greater risk of skin damage.*

*It is important to remember that even when the sky is cloudy or overcast, UV rays can still reach the earth's surface and damage unprotected skin.*

## THE SUN AND SKIN CANCER

Overexposure to UV radiation from the sun can damage the skin cells, if the body cannot repair this damage skin cells may become cancerous.

**There are three main types of skin cancer:**

**Basal cell carcinoma** is the most common form of skin cancer, and can appear as a shiny raised bump or nodule on the skin, located anywhere on the body. Most commonly in areas exposed to the sun.

**Squamous cell carcinoma** can appear like scaly red patches, open sores or bumps with a central depression, they may crust or bleed.

**Melanoma** is the least common skin cancer type but can be the most serious. It occurs when pigment-producing cells, called melanocytes, mutate and become cancerous.

Melanoma and non-melanoma skin cancers can spread throughout the body, if a tumour develops into a blood or lymph vessel.

Early detection is key for a positive outcome with skin cancers, so regular monitoring of the skin and moles for any changes is very important. Medical attention should be sought immediately, if any irregularities are identified.

## THE ABCDE GUIDE TO MOLES

Moles are skin lesions which are usually brown or black and can appear anywhere on the skin.

They may be flat or raised, and tend to be symmetrical with smooth borders. Many people have moles on their skin and normally they are not dangerous, however, they can become cancerous. Used as part of a mole monitoring routine, the **ABCDE guide** to moles can help identify abnormalities.

### Asymmetry

A normal mole should be symmetrical, an asymmetrical mole may be an indication of an abnormality.

### Border

A normal mole generally has smooth borders, an abnormal mole often has irregular borders.

### Colour

A normal mole is generally uniform in colour, an abnormal mole may be uneven in colour.

### Diameter

A normal mole is generally less than 6mm in diameter.

### Evolving

If a mole is changing in size, shape or colour or is bleeding or itching, this can indicate a cancerous mole.

Conduct a monthly skin self-exam to document moles so that any changes or causes for concern can be spotted quickly.



### Did you know?

*Getting sunburn once every two years can triple the chances of developing skin cancer.*

### The shadow rule

When exposed to the sun and unsure of the UV index, the **shadow rule** is a simple way to determine the severity of UV rays. Look at your shadow, if it is shorter than your height then UV rays are strong and the risk of burning is higher.



### Did you know?

*The sun's UV rays can damage your skin in as little as 15 minutes.*

*It is important to visit a doctor or dermatologist immediately if any changes are detected in moles.*

# SUNBURN

Some people are less tolerant of strong sun and more at risk of sunburn, than others. Skin does not need to be blistering and peeling to be classified as sunburnt, once the skin has gone pink or red in the sun, it is damaged. People with darker skin burn less easily, their skin may feel irritated or itchy when sunburnt.

It is important that each person understands how sensitive their own skin is to sun exposure, have an understanding of what is normal for them, and can take the necessary protections when exposed to the sun.

## You should take extra care in the sun if you:

Have light or fair coloured hair

Often burn rather than tan

Have pale skin

Have a history of skin cancer

Have a lot of moles or freckles

Are unaccustomed to strong sun

# ENJOYING THE SUN SAFELY

Regardless of how sensitive a person's skin is to the sun, it is always best to limit exposure during periods when UV rays are at their strongest. However, when spending time in the sun, a combination of shade, clothing and sunscreen can help provide protection from sun exposure:

## Shade

Spending time in the shade is one of the best ways to protect skin from UV rays. Whether relaxing in the garden or on the beach, there are many sources of shade:

- trees
- umbrella
- canopy
- veranda

Remember UV rays can penetrate some fabrics.

## Clothing

Keeping skin covered is a very effective way to prevent against sun damage when exposed to the sun.

Choose clothing which:

- covers arms and legs
- is loose fitting
- is darker coloured
- is tightly woven

## Hats

Always ensure the head is covered, hats with a brim are particularly good for covering the head and face. A darker hat may offer more UV protection. Always remember when wearing a hat to protect your ears, the tips of the ears are often very prone to burning.

## Sunglasses

Sunglasses protect your eyes and the skin around your eyes from UV rays. Choose sunglasses which block UVA and UVB rays and wrap-around the side of the face.

## Sunscreen

Sunscreens help prevent UV rays from reaching the skin, however, no sunscreen blocks out UV rays completely. Sun Protection Factor (SPF) measures a sunscreen's ability to prevent UVB rays from damaging the skin, SPF does not measure protection from harmful UVA rays.

The SPF number refers to the level of protection offered, two is the lowest level and 50+ the highest. The number calculates how long a person can stay in the sun before burning, theoretically if it takes 20 minutes for unprotected skin to begin burning, using an SPF 15 sunscreen protects 15 times longer.

A sunscreen's ability to protect against UVA rays is often indicated with a star rating from 1 star to 5 stars, 1 being the lowest and 5 being highest.

Sunscreens that are labelled **broad-spectrum** offer both UVA and UVB protection.



## Did you know?

*Clouds and pollution do not provide protection from UV sun rays.*

## Sunscreen tips

- Apply 30 minutes before sun exposure.
- Reapply at least every two hours.
- Cover all moles and freckles.
- Reapply immediately after swimming and towel drying.
- Never use sunscreen in order to spend longer in the sun.
- Check the sunscreen's expiration date - most sunscreens have a shelf life of 2 or 3 years, shelf life is shorter if it has been exposed to high temperatures.



## Did you know?

*Water reflects up to 85 percent of the sun's damaging rays.*

## THE DANGERS OF DEHYDRATION

The risk of dehydration is increased when exposed to the sun. Thirst isn't always a reliable early indicator of the body's need for water. Indeed, many people, particularly older adults, don't feel thirsty until they're already dehydrated. When spending time in the sun, it is very important to recognise the signs of dehydration:

Extreme thirst	Dry mouth
Low volumes of urine	Fatigue
Less frequent urination	Headache
Urine that is dark brown in colour	Dizziness

*If you are at risk of dehydration, don't wait until you notice symptoms before you take remedial action. Actively prevent dehydration by drinking plenty of water.*



### Did you know?

*Allow sunscreen 30 minutes to dry before exposure to the sun.*



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### YOUR INTERNATIONAL HEALTH INSURANCE COVER

People who spend time in the sun, are at increased risk of skin cancer and should take the necessary precautions to protect their skin from damage. Try to stay out of the sun when it is at its strongest, spend time in the shade, cover up with appropriate clothing and generously apply a broad-spectrum sunscreen with at least SPF 15.

Getting sunburnt doesn't mean you will develop skin cancer. But it does mean you have damaged your skin, increased your risk, and you must be extra cautious in future to prevent exacerbating the damage.

Aim to strike a healthy balance between protecting yourself from UV damage, while absorbing some vitamin D and enjoying all that a glorious sunny day has to offer.

If you have concerns about a mole or lesion or notice any irregularities or abnormalities on your skin, speak with your doctor. At Allianz Care our core plans cover in-patient, day patient and out-patient oncology treatment.

Dr Ulrike Sucher, Medical Director, Allianz Partners.