

# SUN SAFETY AND SKIN CANCER

The Facts, Prevention  
and Early Detection

*Everything you need to  
know to enjoy the sun safely.*

- This booklet has been produced by national skin cancer charity 'Skcin' The Karen Clifford Skin Cancer Charity. Reg No: 1150048. For further information about the charity and skin cancer visit: [www.skcin.org](http://www.skcin.org)



# SKIN CANCER THE FACTS

## REMEMBER

A MASSIVE 80-90%  
OF ALL SKIN CANCER  
CASES IN THE UK ARE  
PREVENTABLE  
WITH SUN SAFE  
MEASURES

ALMOST ALL SKIN CANCERS ARE CAUSED BY OVER-EXPOSURE TO ULTRAVIOLET RADIATION (UVR) FROM THE SUN AND/OR SUNBEDS. ALL SKIN TYPES CAN BE DAMAGED BY EXPOSURE TO UVR. DAMAGE IS PERMANENT, IRREVERSIBLE AND INCREASES WITH EACH EXPOSURE.

- Skin cancer is the UK's most common cancer
- Malignant melanoma, the deadliest form of skin cancer is one of the most common cancers in young adults (aged 15-34) in the UK
- Over the last twenty-five years, rates of malignant melanoma in Britain have risen faster than any other common cancer
- More people die from skin cancer in the UK than Australia
- **Over 80% of all skin cancers are caused by over-exposure to the sun and/or sunbeds, making the majority of all skin cancers preventable!**



# SOLAR UV RADIATION THE FACTS

**WARNING**  
UV RADIATION  
FROM THE SUN CAN  
ALSO CAUSE DAMAGE  
TO EYES & SUPPRESS  
THE IMMUNE  
SYSTEM

SOLAR ULTRAVIOLET RADIATION (UVR) IS A KNOWN CARCINOGEN, IT CANNOT BE SEEN OR FELT AND IS NOT RELATED TO TEMPERATURE. IT CAN PASS THROUGH CLOUD, BOUNCE OFF REFLECTIVE SURFACES & CAUSE SKIN CANCER.

## **But surely it won't happen to me?**

Wrong. It doesn't matter whether you're young, middle-aged or old, skin cancer doesn't discriminate where age is concerned. The simple fact is that if you fail to protect your skin from UV radiation you're putting yourself at risk. If you allow your skin to become red and burn, this risk can dramatically increase.

There's also no avoiding the fact that skin cancer is on the increase and it's a killer. So, before you strip off and feel the warmth of the sun on your skin this summer, whether you're on an idyllic beach abroad or you're enjoying something as simple as a picnic or a bike ride in this country, ask yourself one question: Am I being sun safe or am I dying to get a tan?



# SUNBURN THE FACTS

## WARNING

UVA AND UVB HAVE  
BEEN DEMONSTRATED  
TO CAUSE DNA CELL  
DAMAGE WHICH  
CAUSES SKIN  
CANCER

SKIN TURNS RED WITHIN 2-6 HOURS OF BEING BURNT AND CONTINUES ON FOR THE NEXT 24 TO 72 HOURS. THE SIMPLE FACT THAT YOUR SKIN HAS CHANGED COLOUR IS A SIGN OF DAMAGE.

**Sunburn** is a reaction to over-exposure of UV radiation caused by the sun and/or sunbeds. The superficial layers of the skin release chemicals that cause your blood vessels to expand and leak fluid causing swelling, pain and redness. Without sun protection, UV radiation starts to penetrate deep into the layers of the skin causing damage to the skin cells.

**UVB rays** reach the outer layer of your skin, they are burning rays and the primary cause of sunburns and skin cancer. **UVA rays** penetrate the middle of the skin and also contribute to skin burning, skin cancer and wrinkling / premature ageing.



# SUNBEDS THE FACTS

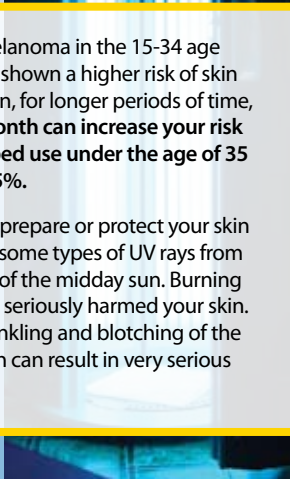
**WARNING**  
REGULAR SUNBED  
USE UNDER THE AGE  
OF 35 INCREASES  
THE RISK OF SKIN  
CANCER BY  
75%

**SUNBEDS ARE NOT SAFE 'FACT'.  
RESEARCH HAS PROVED THAT SUN-  
BEDS GIVE OUT THE SAME HARMFUL  
UV RAYS AS THE SUN, DAMAGING THE  
DNA IN OUR SKIN CELLS WHICH CAN  
CAUSE ALL TYPES OF SKIN CANCER.**



Experts link the dramatic rise in the incidence of melanoma in the 15-34 age group to sunbed use in young adults. Research has shown a higher risk of skin cancer for those who have used sunbeds more often, for longer periods of time, or at a younger age. **Using a sunbed just once a month can increase your risk of skin cancer by more than half and regular sunbed use under the age of 35 increases the risk of skin cancer by an alarming 75%.**

A common misconception is that a sunbed tan will prepare or protect your skin before you go on holiday - it won't! The intensity of some types of UV rays from sunbeds can be up to 10-15 times higher than that of the midday sun. Burning or going red under a sunbed is a sign that you have seriously harmed your skin. Sunbeds can cause premature ageing, sagging, wrinkling and blotching of the skin - once the tan fades the damage remains which can result in very serious consequences over time.



# THE SOLAR UV INDEX

**WARNING**  
WHEN UV LEVELS  
REACH 3 OR ABOVE  
THEY CAN DAMAGE  
THE SKIN AND  
LEAD TO SKIN  
CANCER

- The UV index is a 5 category solar UV forecast
- The higher the number the stronger the UVR and the less time it takes damage to occur
- When the UV index is at 3 and above, sun protection measures should be taken



NO PROTECTION  
REQUIRED

MODERATE TO HIGH UV LEVELS  
SUN PROTECTION REQUIRED

EXTREME UV LEVELS  
EXTRA PROTECTION REQUIRED

To check the UV forecast any time for any location visit [www.skcin.org](http://www.skcin.org)

## UV AND VITAMIN D - THE FACTS

*"Despite the serious health risks, UV radiation, in small amounts is the most efficient way to boost our Vitamin D supply. However, just 15 to 20 minutes of unprotected sun exposure, without skin reddening or burning, per day is sufficient for most people to produce the required Vitamin D levels. Where appropriate levels can be increased by supplements or a diet containing vitamin D rich foods, e.g. fish, milk and egg yolks". Professor Andrew Wright, Consultant Dermatologist, Bradford Teaching Hospitals NHS Foundation Trust*

# FIVE S's OF SUN SAFETY

## WARNING

ALL SKIN TYPES CAN  
BE DAMAGED BY UV  
BUT THOSE WITH  
FAIRER SKIN NEED  
TO TAKE EXTRA  
CARE

### SKCIN RECOMMEND FIVE SIMPLE STEPS TO SUN SAFETY:- SLIP, SLOP, SLAP, SLIDE, SHADE

Remember it's not just sunbathing that puts you at risk, but being in the sun without adequate protection. If you regularly take part in outdoor hobbies or sports, or work outdoors you could be at greater risk. Make sure you use all of the 5 S's of sun safety and NEVER BURN!

1. SLIP on sun t-shirt
2. SLOP on SPF 30+ broad spectrum UVA sunscreen
3. SLAP on a broad brimmed hat
4. SLIDE on quality sunglasses
5. SHADE from the sun whenever possible



## SLIP on sun protective clothing



- Clothing can be one of the most effective barriers between our skin and the sun
- Clothing should cover as much skin as possible
- Always keep shoulders covered, they can easily burn
- A closer weave fabric will provide better protection
- A high UPF rated fabric provides best protection

## SLOP on SPF 30+ sunscreen



*The Level of UVB protection is indicated by the SPF rating. The UVA symbol shows that a product offers UVA protection.*

- No sunscreen provides complete protection
- Never rely on sunscreen alone to protect skin
- Always use a sunscreen with a Sun Protection Factor (SPF) 30 or above, preferably water resistant
- Make sure it's broad spectrum and carries a UVA symbol (if it has a star rating, use a minimum 4 star)
- Store in an accessible, cool place and remember to check the expiry date
- Apply a generous amount to clean, dry, exposed skin
- Apply 20 minutes before going outdoors and once out
- Regardless of the instructions all sunscreens should be reapplied at least every 2 hours (more often if perspiring) and straight after swimming
- Protect your lips with an SPF 30+ lip balm

## SLAP on a wide brimmed hat



- Always wear a hat with a wide brim that shades the face, neck and ears
- Legionnaire (with a flap that covers the neck and joins the front peak) or bucket style hats (with minimum 7.5cm brim) are the most effective
- A close weave or UPF rated fabric will provide better protection
- Warning: Baseball caps do not shade the ears and neck

## SLIDE on quality sunglasses



- Solar UV radiation can be damaging to the eyes, so wear quality sunglasses
- Overall protection depends on the quality of the lens and the design
- Look for the European CE mark, which indicates a safe level of protection
- Those labelled with a high EPF (which ranges from 1-10) will provide best protection
- Ensure they are close fitting and wrap around to stop solar UVR entering the sides and top
- Remember price and darkness of the lens have no reflection on the quality of protection

## SHADE from the sun whenever possible



- Shade can provide a good barrier between our skin and the sun
- Seek shade whenever possible, particularly at the hottest times of the day between 11am and 3pm when UV penetration is strongest
- Keep toddlers and babies in the shade at all times
- Never rely on shade alone, always combine with personal protection measures

## WHO IS MOST AT RISK OF SKIN CANCER?

No matter how dark our skin is, or how easily we tan, the fact is **WE ARE ALL AT RISK!** However, some people are at greater risk due to their skin type and typically tend to have one or more of the following:

- 
- FAIR SKIN THAT BURNS EASILY
  - RED OR FAIR HAIR
  - LOTS OF MOLES AND/OR FRECKLES
  - A FAMILY HISTORY OF SKIN CANCER
  - A HISTORY OF SUNBURN
-

# CHILDREN & BABIES

**WARNING**  
CHILDREN CAN STILL  
BURN ON OVERCAST  
DAYS! NO CHILD  
SHOULD GET  
SUNBURNED -  
EVER!

ONE BLISTERING SUNBURN IN CHILDHOOD OR ADOLESCENCE MORE THAN DOUBLES A PERSON'S CHANCE OF DEVELOPING MELANOMA IN LATER LIFE. THE DAMAGE IS IRREPARABLE.

- Use a minimum SPF of 30+ (preferably SPF 50) sunscreen
- Ensure it is broad spectrum, ideally UVA rating 4 star plus
- Apply liberally, ensuring good coverage
- Don't forget shoulders, ears, nose, cheeks & feet
- Apply 20 minutes before children go outdoors
- Reapply at least every 2 hours
- Use a water resistant sunscreen on children over 3
- Reapply immediately after swimming / towelling
- Water resistant sunscreens should not be used on children under 3 years as they can overheat
- Keep toddlers and babies in the shade as much as possible, particularly when abroad
- Always keep shoulders covered!
- Use UV protective sun suits & broad-brimmed or legionnaire hats for added protection
- Don't forget school - lunch breaks are taken when UV penetration is strongest



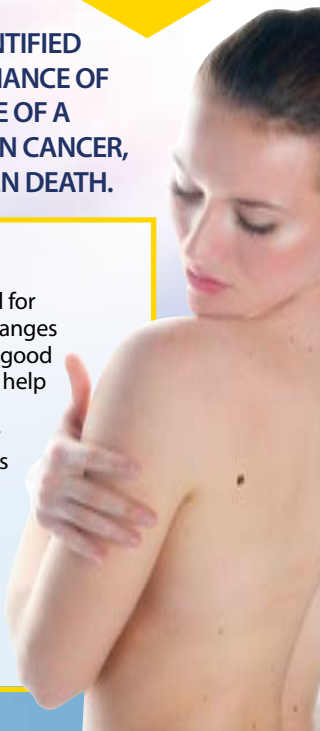
# CHECKING YOUR SKIN

## WARNING

IT IS IMPORTANT  
TO REGULARLY CHECK  
YOUR SKIN FOR SIGNS  
OF CHANGES TO  
DETECT CANCER  
EARLY!

THE SOONER A SKIN CANCER IS IDENTIFIED AND TREATED, THE BETTER YOUR CHANCE OF AVOIDING SURGERY OR, IN THE CASE OF A SERIOUS MELANOMA OR OTHER SKIN CANCER, POTENTIAL DISFIGUREMENT OR EVEN DEATH.

- Skin cancers seldom hurt and are much more frequently seen than felt
- Get to know your skin and what is normal for you so that you can easily identify any changes
- Undress completely, make sure you have good light, use a mirror and/or get someone to help you to check hard to see spots
- Make sure you check your entire body for example soles of the feet, between fingers and toes and under nails



# SKIN CANCER

## WHAT TO LOOK FOR

### ACTINIC (OR SOLAR) KERATOSIS



- Pre-cancerous skin lesions that are slow growing with the potential to develop into cancer
- Commonly found on the head, neck, back of hands & forearms
- Usually appear as small brown, pink or whitish, scaly, red single or multiple rough spots smaller than 1cm in diameter
- They can feel rough and cause soreness, irritation, discomfort or pain or may just pose a cosmetic nuisance

### INTRA-EPIDERMAL CARCINOMA (BOWEN'S DISEASE)



- Pre-cancerous skin lesions that are slow growing
- Most commonly found on the head, neck and lower limbs.
- Presents as an asymptomatic sharply demarcated, scaly, red, pink, salmon coloured patch or plaque
- The border may be irregular
- May be flat, scaly, crusted, eroded, ulcerated, velvety or warty
- Due to asymptomatic nature lesions may become very large

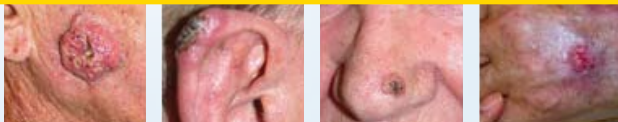
Skin cancer can be divided into two main groups; Non Melanoma Skin Cancer (NMSC) & Malignant Melanoma (MM). It is also important to look out for pre-cancerous skin lesions which are a warning sign that you are prone to skin cancer. There are 2 main types of pre-cancerous skin lesions: Actinic (or Solar) Keratosis and Intra-Epidermal Carcinoma (Bowen's Disease). Remember the earlier skin cancer is identified, the easier it is to treat, so if in doubt - get it checked out!

#### BASAL CELL CARCINOMA



- The most common type of skin cancer
- The majority occur on sun exposed areas i.e. the face, neck and ears
- Slow growing and rarely spread anywhere else on the body
- Can appear in different sizes and shapes
- Look out for pearly, shiny lumps, skin ulcer or patch of dry skin that won't heal (In extreme cases, large or neglected BCC's can cause extensive local invasion)

#### SQUAMOUS CELL CARCINOMA



- Typically present on the face, ears, lips, mouth and hands and grows at variable rates with varied appearance
- Usually presents a scaly lump, nodule, ulcer or non-healing sore
- Often start as a small hard white or skin coloured lumps
- Rarely spreads, but left untreated will increase in size
- Could spread to local lymph nodes or around the body
- In extreme cases can be life threatening

# MALIGNANT MELANOMA

- Melanoma is the most deadly form of skin cancer
- Melanoma appears as a new spot or an existing spot or mole that changes in colour, size or shape
- Left untreated, can spread to form new cancers around the body
- Melanoma can appear anywhere on the body, even where skin is not normally exposed to the sun

## Remember the ABCDE of Melanoma:

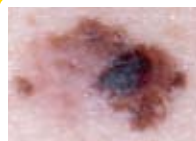
The 'ABCDE OF MELANOMA' is a common screening tool used to compare the characteristics of normal moles versus melanomas. These photographs show examples of melanomas and should help you to recognise what is not normal. However, not all melanomas look like these and some may be very small so it is important to see your doctor if you notice any changes or unusual marks that have lasted more than a few weeks. It is also important to check your skin regularly (the experts suggest once per month), especially if you are at higher risk of developing skin cancer.

### NODULAR MELANOMA



- Looks different from common melanomas
- They grow quickly and are raised & even in colour
- Many are red or pink, some are brown or black
- They are firm to touch and dome-shaped
- After a while they begin to bleed and crust

- A = ASYMMETRY:** when one half of the mole doesn't match the other
- B = BORDER:** when the borders are irregular, ragged or blurred
- C = COLOUR:** when the colour changes or varies throughout and/or there appears to be no uniform pigmentation
- D = DIAMETER:** when the diameter is greater than 6mm (but could be smaller)
- E = EVOLVING:** changes in the mole over variable time: weeks, months or years



**A = ASYMMETRY**



**B = BORDER**



**C = COLOUR**



**D = DIAMETER**



**E = EVOLVING**

### **WARNING**

**IF IN DOUBT GET  
IT CHECKED OUT  
IMMEDIATELY BY  
YOUR GP WHO CAN  
REFER YOU TO A  
SPECIALIST**

**Consult your doctor immediately if you develop any of these signs:**

- If a mole changes shape, particularly getting an irregular outline
- If a mole changes colour/getting darker, patchy or multi-shaded
- If an existing mole is getting bigger or a new mole is growing quickly
- If it starts to itch, gets painful, starts bleeding, gets crusty or inflamed



## SUN SAFE SCHOOLS & SUN SAFE NURSERIES

Sun Safe Schools and Sun Safe Nurseries are annual accreditation schemes developed by national skin cancer charity 'Skcin' to educate primary and pre-school children on how to enjoy the sun safely and assist schools in helping children stay safe in the sun whilst in their care. Education at an early age will help halt the soaring incidence of skin cancer in the UK.

To find out more and/or download a range of FREE, fun and engaging resources for your little sunbeams, please visit: [www.sunsafeschools.co.uk](http://www.sunsafeschools.co.uk).

For further information about skin cancer and to find out more about the charity 'Skcin' please visit: [www.skcin.org](http://www.skcin.org)



[www.sunsafeschools.co.uk](http://www.sunsafeschools.co.uk) • [www.sunsafenurseries.co.uk](http://www.sunsafenurseries.co.uk)