



SUNSENSE FOR LIFE

Expert Panel recommendations for the
safe and effective use of sunscreens

DEVELOPED BY THE SUNSENSE
MULTIDISCIPLINARY EXPERT
PANEL IN CONJUNCTION WITH
YORK PHARMACEUTICALS

CONTENTS

	PAGE
Introduction	3
WHAT YOU NEED TO KNOW:	
Skin Cancer	4
Signs of Skin Cancer	5
UV Exposure	6
Vitamin D	7
Children and Sun Protection	7
Sun Protection in Schools	8
Ethnicity and Sun Protection	9
THE SUNSENSE PANEL RECOMMENDATIONS:	
What SPF to use	10
How to: Choose a sunscreen	11
Apply sunscreen	11
Store sunscreen	12
Sun Protection	13
APPENDICES	
Appendix I - Contributors and Biographies	14
Appendix II - Glossary	17
Appendix III - Sources of Information	18
Appendix IV - References	20

INTRODUCTION

The incidence of skin cancer is increasing which is due in part to changes in our social behaviour and also to further depletion of the ozone layer. We are living longer and therefore our lifetime exposure to the sun is greater. We travel abroad more to sunnier climates and furthermore, many still believe suntans to be attractive and healthy.

What people often don't realise is that sun damage is cumulative and may contribute to skin cancer later in life. Sunburn in childhood can double the risk of skin cancer. You will not see the damage immediately because skin cancer can take years to develop. Children who are overly exposed to the sun now are storing up problems for the future.

Educational campaigns, such as those spearheaded by Cancer Research UK's SunSmart awareness and prevention campaign, have greatly helped educate the public on minimising their risk of skin cancer and skin damage whilst in the sun.

Yet, in spite of such awareness and education campaigns, research - both clinical and anecdotal - suggests that uncertainty and confusion still exist regarding the issue of sun exposure and correct use and application of sun protection (namely sunscreens).

The multi-disciplinary Sensense Expert Panel convened to build upon the messages advocated by the SunSmart campaign and strengthen the recommendations regarding sun protection, particularly in childhood, with the message: appropriate sun protection habits developed in childhood are essential if we are to reduce the incidence of skin cancer later in life.

This report has been brought you by:

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SKIN CANCER

According to Cancer Research UK, skin cancer is the most common type of cancer in the UK.

There are two main types of skin cancer, melanoma and non-melanoma.

Melanoma (mole cancer) is the least common but most serious type of skin cancer, with around 9,000 new cases each year in the UK and 1,800 deaths. In the UK, melanoma skin cancer is the most common cancer in the 15-34 age group and rates are rising faster than any other cancer. Melanoma can be successfully treated early in the disease - so the key is early detection.

Non-melanoma (basal cell and squamous cell carcinoma) skin cancer is less serious however much more common with more than 75,000 cases registered each year. However, the actual number of cases will be much higher, because this type of cancer tends to be under reported as most cases are easily treated and cured. This figure is rising all the time and affecting younger age groups.

There are two types of non-melanoma skin cancer, basal cell carcinoma and squamous cell carcinoma. The majority of patients are the elderly with 70% of all reported cases occurring in those over 65 years of age. The prognosis for non-melanoma skin cancer is very good with many cases treated in primary care.



SIGNS OF SKIN CANCER

Treatment is much easier if skin cancer is detected early. For this reason, skin should be checked once a month for changes. Friends or family members can help. A doctor should be seen if any marks on the skin are:

- Growing
- Bleeding
- Changing in appearance in any way
- Never healing completely

Also see a doctor if there are any new growths on the skin or you have a skin injury that doesn't heal.

Melanomas often start in moles and the British Association of Dermatologists has created the **ABCD-Easy** guide to mole checks, to detect the signs of melanoma - the deadliest type of skin cancer. Look out for:

A symmetry

the two halves of the area may differ in shape

B order

the edges of the area may be irregular or blurred, and sometimes show notches

C colour

this may be uneven. Different shades of black, brown and pink may be seen

D iameter

most melanomas are at least 6mm in diameter. Report any change in size, shape or diameter to your doctor

E xpert

if in doubt, check it out! If your GP is concerned about your skin, make sure you see a Consultant Dermatologist, the most expert person to diagnose a skin cancer. Your GP can refer you via the NHS.

UV EXPOSURE

A major cause of skin damage is excessive UV (ultraviolet), which is increasing due to world-wide environmental changes.

The ultraviolet light in sunlight damages the DNA in the skin cells. This damage can happen years before a cancer develops. The sun's rays contain three types of ultraviolet light:

- 1 UVA makes up most of our natural sun light and causes skin ageing, as well as certain skin cancers. UVA can penetrate window glass and penetrates the skin more deeply than UVB hence the need for a broad spectrum UV protection.
- 2 UVB is what makes the sun burn the skin and is the main cause of non melanoma skin cancer. So a sunscreen with a high SPF (sun protection factor) will help prevent the skin from burning and the damage that can cause skin cancer.
- 3 UVC is mostly filtered out by the atmosphere of the earth

UV radiation is not felt as heat on the skin, so even on a cool and cloudy day, it may be just as high and just as damaging as on a clear and sunny day. Use of a sunscreen should therefore be considered on high UV days and not just when the sun is out. And, as UVA levels do not drop as markedly as UVB in higher latitudes or out of the peak UK summer season, the Sunsense Expert Panel recommend that it should be worn on high UV days from April to October in the UK. High UVA days are now advertised during the summer.

Historically sunscreens have concentrated on protecting mainly against UVB, measured by the protection factor (SPF). According to the FDA there is no current approved rating system that identifies UVA protection and any measurements that are currently being used by sunscreen manufacturers are misleading. However, the Sunsense Expert Panel believe that the use of sunscreens that provide the highest possible SPF give the user the greatest protection from UVA.

The message is clear: To protect from UV, people should consider using a high SPF sunscreen from April to October in the UK, even applying on cloudy days - a good guideline to this is, if you feel the need to use your sunglasses, apply sunscreen.

VITAMIN D

Concerns have been raised about the link between sun avoidance and Vitamin D deficiency. As sunlight helps the body to produce Vitamin D, some experts are worried that by avoiding sunlight to protect ourselves from skin cancer, we put ourselves at risk from health problems associated with Vitamin D deficiency.

However, the Sunsense Expert Panel agrees that these risks can be reduced with adequate intake of vitamin D through diet or supplements, and exposure to small amounts of sunlight. The Panel advises that the actual amount of sunlight needed to manufacture Vitamin D is minimal. They recommend between 10 and 15 minutes facial exposure - perhaps from a walk to school or hanging out washing in the garden would provide sufficient exposure to sunlight without compromising the integrity of the skin - no more than twice a week.

N.B. Skin will reach its optimum level of vitamin D production long before it has a chance to burn.

CHILDREN AND SUN PROTECTION

Skin cancer is a significant and increasing public health problem. We get around 80% of our exposure to the sun before the age of 18. So it is vital that parents are aware of the dangers and know how to protect their children properly.

Teaching children safe sun habits while they are young sets a good pattern for later life and reduces their risk of developing skin cancer in the future.



SUN PROTECTION IN SCHOOLS

Children have much more opportunity to play and take part in sports and other outdoor activities, particularly at school.

“Managing Medicines in Schools and Early Years Setting” a guidance document developed by the Department for Education and Skills provides a clear framework for schools, and local health and educational organisations to ensure children requiring medicines get the appropriate and immediate support they need. Whilst asthma, diabetes, epilepsy and anaphylaxis constitute the main medical conditions that cause concern in the school setting, it is reasonable to introduce the use of sunscreens and sun protection also to minimise the risk of sun over exposure. Together with a shady area in which to play and the wearing of hats, provision should be made available for teachers to take a role in the application and availability of sunscreens, particularly in young children.

School sports days should be held early in the morning or late afternoon to avoid the midday sun. Teachers should also provide shade in the area where the event is being held, perhaps through trees or temporary shade structures such as umbrellas or canopies.



ETHNICITY AND SUN PROTECTION

Skin type does affect the level of risk. There are several different skin types. All of them should be protected with sunscreen:

- In general the paler your skin the more at risk you are
- Brown skinned people have a lower risk
- Black skinned people have a low risk of skin cancer but excessive sun can still cause premature ageing of the skin

Healthcare professionals have not agreed any recommendation on the use of sun protection amongst Black and Asian groups living in the UK. The Sunsense Expert Panel advises that these groups, particularly those who are from mixed race background, should use an SPF20 or higher.

CAN TANNING BE SAFE?

There is no such thing as a safe tan. Although a tan might be considered fashionable and a sign of healthy skin, it isn't healthy at all. On the contrary, it's a sign of damage - your skin turns darker because it's been burned.

UV radiation is what makes people tan. UV rays penetrate to the lower layers of the epidermis, where they trigger cells called melanocytes (pronounced: mel-an-oh-sites) to produce melanin. Melanin is the brown pigment that causes tanning. Melanin is the body's way of protecting skin from burning. Darker-skinned people tan more deeply than lighter-skinned people because their melanocytes produce more melanin. But just because a person doesn't burn does not mean that he or she is also protected against skin cancer and other problems. The sun also ages your skin, making you look older and wrinkly sooner.

The Sunsense Expert Panel consensus, in their medical opinion, is that safe tanning is not possible. However, it can be argued that it is unrealistic to expect people to avoid exposure to the sun entirely. Sun exposure should be done prudently and within the limits of agreed recommendations from both clinical and public organisations.

SUNSENSE EXPERT PANEL RECOMMENDATIONS

Building upon the messages disseminated by educational campaigns via support groups and healthcare professional associations the Sunsense Expert Panel has proposed the following recommendations and guidance to clarify any confusion for people when they are in the sun.

1 WHAT SPF?

- Children under 6 months should be protected from the sun as much a possible by not taking them out in bright sunshine, seeking the shade and covering them up adequately so that they can't burn
- All children and infants from seven months to 12 years:
 - Skin type* I, II and III ideally use a sunscreen with a minimum SPF 50
 - Skin type IV, V and VI ideally use a minimum of SPF30
 - Older children 12+ should use a minimum of sunscreen protection factor 25
- All adults aged 18 years and above should apply a sunscreen with a minimum SPF 20

* WHAT SKIN TYPE DOES YOUR CHILD HAVE?

Type I Often burns, rarely tans. Tends to have freckles, red or fair hair; blue or green eyes.

Type II Usually burns, sometimes tans. Tends to have light hair; blue or brown eyes.

Type III Sometimes burns, usually tans. Tends to have brown hair and eyes.

Type IV Rarely burns, often tans. Tends to have dark brown eyes and hair.

Type V Naturally black-brown skin. Often has dark brown eyes and hair.

Type VI Naturally black-brown skin. Usually has black-brown eyes and hair.

2 CHOOSING A SUNSCREEN

The following should be considered when purchasing a sunscreen:

- Pick a broad-spectrum sunscreen that protects against UV-A and UV-B rays and has a sun protection factor (SPF) of at least 50 for children and 20 for adults.
- Choose a sunscreen based on quality (they tend to be between £8 - £12 in price) and with a strong heritage in sun protection.
- Read product labels. Look for a water-resistant product if you will be swimming or exercising and therefore perspiring.
- Buy a product specifically formulated for your face.
- Not all sunscreens have the same ingredients so try a sunscreen with different chemicals if your skin reacts badly to the one that you are using.
- Use an oil-free or alcohol-based sunscreen if you have oily skin or are prone to acne.

3 APPLICATION OF SUNSCREEN

Most people apply too little sunscreen, which means they get a lot less protection than they think. The following recommendations will help to maximise the benefit of the recommended SPF:

- If you feel the need to use your sunglasses, apply sunscreen.
- Apply sunscreen approximately 30 minutes before being in the sun (for best results) so that it can be absorbed by the skin and is less likely to wash off if you perspire.
- Shake well before use to mix particles that might be clumped up in the container.
- Aim to apply about a golf ball-size amount of sunscreen to the entire body in one application.

- Apply sunscreen evenly on all exposed areas and smooth in. The sunscreen should lie on top of the skin and not rubbed in completely, just enough for the cream to disappear then allow this layer to dry.
- Repeat this application just before going out in the sun.
- Do not use your sunscreen too sparingly. Even though the short term cost may seem high, you could be putting yourself at risk long term if you don't apply liberally.
- Use on all parts of your skin exposed to the sun, including the ears, back, shoulders, and the back of the knees and legs.
- Be careful when applying sunscreen around the eyes.
- Remember to reapply sunscreen after swimming or strenuous exercise, or as directed on pack.

4 STORAGE OF SUNSCREEN

Sunscreen will not be as effective if it has past its use-by date, or has been stored incorrectly, such as in the car, or left outside, therefore:

- Extremes of temperature should be avoided
- Sunscreens should be stored at a temperature between 4 and 25-30°C
- Sunscreens can be used for up to two to five years when stored at the correct temperature

Sunscreens losing their potency can be identified by changes in the texture, odour and colour of the product.

5 SUN PROTECTION

Don't rely on sunscreen as the only method of sun protection, as no sunscreen provides 100% protection, so in addition to applying sunscreen, remember:

- When the sun's really glaring, especially between the hours of 11am and 3pm when it is at its most intense, cover up or seek a shady area.
- Wear protective clothing and hats when out in the sun. Loose-fitting clothing made from tightly woven fabric works best - hold clothing against the window to see how much light they let in to gauge their SPF.
- Wear wraparound sunglasses with 100 percent UV protection. They protect your eyes and the delicate skin around them. Stay away from mirrored sunglasses—they intensify the sun's rays.
- Lips can never tan, but they easily burn. Wear a protective lip balm with sun protection every day and reapply it often.
- There's no such thing as a safe tan! Never use tanning beds. If you like the look of a tan, then consider a sunless tanning lotion. It's much safer than a real tan.



APPENDICES

APPENDIX 1

THE SUNSENSE EXPERT PANEL - CONTRIBUTORS AND BIOGRAPHIES

Dr Anthony Bewley

Consultant Dermatologist

Dr Tony Bewley qualified from Bristol University Medical School in 1987, and has trained in Dermatology at the Westminster Hospital, University College London Hospitals, Portsmouth and Southampton University Hospitals NHS Trust. He is a Consultant Dermatologist at Whipps Cross University Hospital, and Barts and the London NHS Trust; and honorary Senior Lecturer at Queen Mary College (University of London). He is trained in general dermatology, and has a special interest in dermatological liaison psychiatry (psycho-cutaneous medicine). Research interests include cutaneous allergy, psoriasis, and psycho-cutaneous medicine. Tony was Clinical Director for General and Speciality Medicine at Whipps Cross University Hospital up until fairly recently.

Dr Richard Turner

Consultant Dermatologist, Churchill Hospital, Oxford

Dr Turner qualified in 1989 from the University of Wales College of Medicine. He trained in dermatology in Cardiff as a research fellow and clinical tutor 1994 to 1996 then continued his training in Newcastle developing a particular interest in skin cancer and dermatological surgery between 1996 and 1999. He was appointed as a consultant dermatologist in Oxford 1999. He presently is the clinical lead in skin cancer for dermatology and heads the skin surgery and laser team.

Dr Christine Clark

Independent Pharmaceutical Consultant

Christine Clark was appointed as first teacher/practitioner in clinical pharmacy in the UK. In this post she developed clinical pharmacy practice, teaching and research activities. She was a founder member of the United Kingdom Clinical Pharmacy Association and served as chairman from 1985 until 1988.

She is the author of over 40 papers on clinical pharmacy and the winner of several awards for distinguished practice in pharmacy.

In 1996 she developed an interest in dermatology. In 2002 she completed a PhD in evidence-based medicine, focused on the treatment of psoriasis. She has served as a member of the National Eczema Society Scientific Committee, the Dermatology Workforce Group and the All-Party Parliamentary Group on Skin. Until December 2005 she held a part-time post as Research Fellow in Clinical Therapeutics at Bradford University. In 2006, she was appointed to the NICE Guidelines Development Group for childhood eczema. She is also an honorary fellow of the College of Pharmacy Practice. Currently she works as a medical writer and consultant.

Gillian Godsell

Skin Cancer Nurse Specialist, University Hospital Nottingham

Gill has been a skin cancer nurse specialist since 1999 at University Hospital Nottingham and works with patients diagnosed with skin cancer from all over the East Midlands. She has a Master's degree in Advanced Nursing Practice focussing on all aspects of skin cancer.

Gill has written numerous articles on skin cancer and has lectured on many aspects of skin cancer nursing both nationally and internationally. She has won many awards for her work in skin cancer and nurse surgery and is regarded as one of the leading specialists in skin cancer nursing.

Dr Elizabeth Ogden

Associate Specialist in Dermatology and Non Principal GP

Dr Elizabeth Ogden has worked as a non principal General Practitioner in Hertfordshire, England. She now works full time in Dermatology as an Associate Specialist in the Department of Dermatology at the Lister Hospital, Stevenage and also as an Associate Specialist for West Hertfordshire Hospitals Trust Dermatology Clinical Assessment and Treatment Service doing Dermatology Outreach Clinics in Borehamwood, St Albans and at Potters Bar.

Her special interests are Education and Genital Dermatology. She also works as Associate Specialist in Reproductive Healthcare in Enfield, Middlesex and does a dedicated Vulval Clinic twice a month for this service. Dr Ogden is currently Secretary of the Primary Care Dermatology Society and is on the Education Sub Committee. She represents the PCDS on the Skin Care Campaign – the umbrella organization for skin charities. She is an examiner for the Faculty of Sexual and Reproductive Healthcare.

APPENDIX II

GLOSSARY

Melanoma	Skin cancer of melanocytes.
Melanocyte	Cell producing the pigment (melanin) of the skin. Can be damaged by ultraviolet radiation and become melanoma.
Registration	United Kingdom Association of Cancer Registries (UKACR) brings together organisations with an interest in developing cancer registration as a resource for studying and controlling cancer in the UK and Ireland.
Sunscreen	A substance that helps protect the skin from the sun's harmful rays. Sunscreens reflect, absorb, and scatter both ultraviolet A and B radiation to provide protection against both types of radiation. Using lotions, creams, or gels that contain sunscreens can help protect the skin from premature aging and damage that may lead to skin cancer.
SPF	Sun Protection Factor; a number that indicates how much longer a person wearing sunscreen can remain in the sun before beginning to burn. For example, a sunscreen with an SPF15 will allow an adult to remain in the sun 15 times longer without burning <signs of burn> than if a sunscreen were not applied / used.
UV	Ultraviolet Light. The invisible spectrum of solar radiation. It is divided into three regions with increasing danger to the skin; UV-A, UV-B, and UV-C.

APPENDIX III

SOURCES OF INFORMATION

British Association of Dermatologists (BAD)

The British Association of Dermatologists is the central and long-established association of practising UK dermatologists, with the aim of continually improving the treatment and understanding of skin disease.

www.bad.org.uk

British Skin Foundation

The British Skin Foundation is a registered charity committed to raising funds for skin disease research. Working closely with the British Association of Dermatologists the foundation is the only charity dedicated to supporting dermatologists and skin science.

www.britishskinfoundation.org.uk

Skin Care Campaign

Established in 1992, the Skin Care Campaign (SCC) is an umbrella organisation representing the interests of all people with skin diseases in the UK.

www.skincarecampaign.org

The UK Skin Cancer Working Party

The UK Skin Cancer Working Party is an important professional organisation affiliated to the British Association of Dermatologists (BAD), co-ordinating much work about skin cancer.

www.bad.org.uk/public/cancer/skin_cancer_working_party.asp

Cancer Research UK

Cancer Research UK is the world's leading independent organisation dedicated to cancer research.

<http://info.cancerresearchuk.org>

SunSmart

Launched in 2003 SunSmart is a joint initiative between Cancer Research UK and UK Health Departments. The nationwide campaign aims to increase awareness of how to be safe in the sun and protect against skin cancer.

<http://info.cancerresearchuk.org/healthyliving/sunsmart/>

THE SUNSENSE FAMILY



SUNSENSE is Australia's number one sun care brand and is used and recommended by the majority of leading UK skin specialists. SUNSENSE is an advanced, high protection sunscreen, designed to prevent sunburn, premature aging and skin cancer, with the convenience of being easy-to-apply. Unlike conventional sunscreens, SUNSENSE uses a breakthrough technology which protects the skin from visible light (except Sport Gel), UVA and UVB rays.

Available from SPF 30 to SPF 50+, SUNSENSE is suitable for the delicate skin of toddlers and young infants, school children and adults with sensitive skin conditions. While traditional sunscreens can leave an unsightly, heavy white film on the skin, SUNSENSE is easy to apply, non-greasy and rubs in invisibly, so all members of the family like using it. Suitable for even the most sensitive of skins SUNSENSE's mild, moisturising formulas leave the skin feeling silky smooth.

All SUNSENSE products have been designed to avoid irritation and allergic reactions. SUNSENSE does not contain lanolin, PABA or its derivatives.

The SUNSENSE product range is available from all good pharmacies, including many Alliance Pharmacy and Superdrug high street stores.

APPENDIX IV

REFERENCES

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