

Department of Dermatology

Your skin and the sun

Information for patients



Skin cancer is increasingly common in the United Kingdom – and exposure to the sun is one of the main culprits for this increase. Here are some simple and practical tips on how to protect your skin from the harmful effects of ultraviolet (UV) light, without missing out on enjoying your favourite outdoor activities.

Which sunscreen should I use?

The harmful effects of sunlight – including sunburn and skin cancer - come from UV radiation. The UV radiation that reaches the earth's surface can be broadly divided into UVB, which causes sunburn, and UVA, which penetrates more deeply into the skin and is responsible for the ageing effects of sunlight, such as wrinkles and brown pigmentation. Both UVB and UVA contribute to the development of skin cancer.

Sunscreens can be divided into two types – 'chemical' sunscreens that absorb harmful radiation like a sponge, and 'physical' sunscreens that reflect the UV away from the skin like a mirror. Most sunscreens contain a mixture of different chemical and physical sunscreens to ensure that they protect against a broad spectrum of UV light – both UVA and UVB.

SPF stands for 'sun protection factor', and is a measure of how well a sunscreen protects the skin from the burning effects of UVB – the higher the SPF, the higher the level of protection. It is better to choose a sunscreen that is labelled 'high' or 'very high' protection – that is, SPF 30 or above.

Note that a high SPF protection sunscreen does not necessarily protect against the harmful effects of UVA. UVA protection is rated using a 'star' system – the greater the number of stars, the higher the protection. Also look out for this UVA logo to ensure UVA protection.



It is therefore very important to choose a sunscreen that is labelled 'Broad Spectrum', that is, one that offers high levels of both UVA and UVB protection.

How much sunscreen should I apply?

Sunscreen will not protect your skin properly if you do not apply the right amount, or if you forget to reapply it.

Studies have shown that people frequently apply less than half the amount of sunscreen required to provide adequate protection. People also often miss certain sites, such as the back, sides of the neck, temples and ears.

Although it is difficult to specify exactly how much sunscreen each person should apply (this will vary on your size and the particular formulation of sunscreen you use), as a bare minimum an average adult should use 6 full teaspoons to cover their body.

Sunscreen should be applied 15 to 30 minutes before going out in the sun, and then reapplied every 2 to 3 hours. It should also be reapplied after swimming, perspiring or towel drying.

The overall message is, of course, 'more, and more often, is better'.

What else can I do to protect my skin?

Sun protection is not just about wearing sunscreen. Wearing a broad-brimmed hat, made out of thick material (not straw with holes in it!), will protect your head and ears.

Covering up is also important – long-sleeved shirts and long trousers will help protect your arms and legs. UV radiation is highest during the middle part of the day – between 11 am and 3 pm – so avoid direct, full sun exposure during these times if possible.

Don't forget your eyes can also be damaged by UV light – wear sunglasses with a CE mark, which indicates full UV protection under European standards.

It is vitally important never to use tanning beds or sunlamps.

Isn't sunlight necessary for getting vitamin D?

Vitamin D is important for maintaining healthy bones and muscles, and current research suggests it may play a role in preventing several diseases, such as cancer and autoimmune diseases. Although humans can get vitamin D from several food sources, most of this vitamin is produced in our own skin, after exposure to UV light. The skin is able to make vitamin D long before it starts to burn.

Unfortunately it is almost impossible to determine a safe level of sun exposure for each person that will give them adequate levels of vitamin D, without increasing their risk of developing skin cancer.

You should not sunbathe or use tanning beds or sunlamps to increase your vitamin D levels as you may increase your risk of skin cancer. Exposing your face and forearms to sunlight during your everyday activities, without causing sunburn, should be enough. Vitamin supplements and specific foods rich in vitamin D (such as oily fish) may also help maintain adequate levels.

Self-checking your skin – what to look for

Early detection of skin cancer can be life-saving. You should therefore learn to check over your own skin every so often – perhaps once a month. A friend or family member can help you check your back (or you may wish to use a mirror).

If you notice any changes or new marks you should have them checked by your doctor. In particular, you should see your doctor if you have any marks on your skin which are:

- Growing
- Bleeding
- Changing in appearance in any way
- Not healing

Furthermore, if you notice any of the following signs (the 'ABCDs') with any of your moles, you should also see your doctor:

- A = Asymmetry – the two sides of your mole do not look the same
- B = Border – the edges of the mole are jagged, blurred, or irregular
- C = Colour – the mole's colour is uneven, or there are several colours
- D = Diameter – the mole has grown to greater than 6 mm in diameter.

You may also find the following resources useful:

Macmillan Cancer Support

www.macmillan.org.uk

Tel: 0808 800 00 00

Cancer Research UK

www.cancerresearch.org

The British Association of Dermatologists

www.bad.org.uk

If you need an interpreter or need a document in another language, large print, Braille or audio version, please call **01865 221473** or email **PALSJR@ouh.nhs.uk**

Stephanie Arnold & Jonathan Bowling
Version 1, November 2011
Review November 2014
Oxford University Hospitals NHS Trust
Oxford OX3 9DU
www.ouh.nhs.uk/patientinformation