

# UK advice on sun creams 'not in the interests of public health,' warns DTB

1 June 2011

The strength of sun cream recently recommended by the National Institute for Health and Clinical Excellence (NICE) to stave off sunburn is far too low and "not in the interests of public health," warns the *Drug and Therapeutics Bulletin* (DTB).

NICE should rethink its advice, and soon, it says.

NICE recommends sunscreens with a sun protection factor, or SPF, of 15 as sufficient to prevent sunburn and the subsequent potential risk of [skin cancer](#).

But DTB says that this is based on standard test conditions in which manufacturers apply 2 mg/cm<sup>2</sup> of product to the skin.

"In reality .. people using sunscreens typically apply much less than this and get no more than half, at best, of the protection indicated by the labelled SPF," says DTB in its editorial on the subject.

Indeed, evidence presented in its evidence review shows that at the levels typically applied - between 1.5 mg to 0.5 mg/ cm<sup>2</sup> - a maximum sunscreen with an SPF of 50 will only afford an SPF of between 19 and 3.

To meet the NICE recommendation, a single application for an adult would require 35 ml of sunscreen, and if applied every two hours, as NICE also recommends, would use up a standard 200 ml bottle every two to three days, DTB points out.

This is impractical and expensive, and the conditions under which sun creams are tested should be changed to more accurately reflect the way people actually use these products, argues DTB.

The SPF refers to the amount of UVB (short wave sunlight which is the main cause of sunburn)

protection afforded by a product. And in the UK, sunscreens often carry what has come to be referred to as the "Boots star rating system," which indicates the ratio of UVA (long wave) and UVB protection.

More stars mean more UVA protection, which makes up more than 95% of terrestrial [UV radiation](#). But, cautions DTB, "a 5-star product at a lower SPF (say 15) could provide less UVA protection than a 3-star product at a higher SPF (say 30)."

"Products labelled with an SPF of 30 (together with a 4- or 5- star rating to indicate broad spectrum ultraviolet screening effect) will more reliably deliver adequate sun protection to most people who use sunscreens and would be sufficient to prevent sunburn under most circumstances. We believe this is what NICE should have recommended," says DTB.

Dr Ike Iheanacho, DTB editor comments: "In DTB's view, NICE's recommendation to use sunscreens with an SPF as low as 15 is a blunder that overlooks the key evidence and is not in the best interests of [public health](#). This advice needs urgent review and correction."

The evidence in favour of sunscreen protection against two out of the three types of skin cancer, including the most dangerous - malignant melanoma, the incidence of which has at least tripled in the past 30 years - is also weak/equivocal, says DTB.

Nevertheless, if applied properly, sunscreen will prevent sunburn, and a history of sunburn is an important risk factor in the development of skin cancer. The evidence suggests that every five episodes of sunburn per decade add up to a threefold increased risk of developing malignant melanoma.

As summer approaches the DTB advice is

therefore to:

- Apply sunscreen (factor 30) to all areas that are not protected by clothing, including face, ears, and backs of hands
- Pay particular attention to vulnerable areas, such as the nose, shoulders, tops of the feet, and back of the neck
- Spread sunscreen evenly rather than rub it in
- Re-apply after swimming or heavy sweating
- Don't use sunscreen to prolong time spent in the sun
- If you are fair skinned, go without [sunscreen](#) for 15 minutes two to three times a week only to ensure adequate supplies of vitamin D can be manufactured by the skin; those with darker skins need longer. The evidence shows that vitamin D from sunlight helps maintain strong bones and is associated with protection against some cancers and autoimmune diseases.

Provided by British Medical Journal

APA citation: UK advice on sun creams 'not in the interests of public health,' warns DTB (2011, June 1) retrieved 3 May 2021 from <https://medicalxpress.com/news/2011-06-uk-advice-sun-creams-health.html>

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