



# Press Release

## Tanning provides greater protection from the sun

### Allowing the skin to become gradually accustomed to the sun's ultraviolet rays creates effective natural protection from sunlight

Veldhoven, 10 May 2011 (SRF). Allowing the skin to slowly become accustomed to UV radiation from sunlight by moderate tanning creates a protective effect. Studies repeatedly find that continuous sun exposure below the erythema threshold (when the skin begins to redden) is essential in helping the human body to build up its natural self-protection mechanism against UV ray overexposure. Pigmentation and the formation of the so-called "light callous" - a thickening of the skin's uppermost layer, the stratum corneum - create an effective dermatological barrier against radiation's harmful effects. This naturally produced effect is comparable to the protection offered by sun cream. "Regular sun bathing over a period of three to four weeks allows the light callous to fully develop. The thickened stratum corneum is better able to absorb UVB light and to prevent it from penetrating the rest of the epidermis," explained Ad Brand from Sunlight Research Forum. He continues by explaining how solar radiation boosts the production of the pigment melanin. "This skin pigment provides another layer of protection from UV radiation below the stratum corneum. Melanin is the substance which produces tanned skin. The more melanin stored, then the darker the suntan", said Ad Brand.

"Tanning outdoors or in a solarium therefore provides greater protection from the sun by activating the skin's own protection against UV rays. Brand recommends that "the three to four weeks running up to a beach holiday should be used to build up the light callous layer and increase melanin production". He warns that: "Sudden overexposure to UV radiation without preparation can cause sunburn and increases the risk of developing skin cancer."

The Sunlight Research Forum (SRF) is a non-profit organisation based in the Netherlands. Its aim is to make the latest medical and scientific evidence on the effects of moderate exposure to UV radiation available to the general public.

#### Reference:

Uli Osterwalder and Bernd Herzog: "The long way towards the ideal sunscreen", in: Photochemical & Photobiological Sciences, first published on the web 1st March 2010

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