



Note for the Media WHO/16  
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## HEALTH CONSEQUENCES OF EXCESSIVE SOLAR UV RADIATION

### New WHO report shows breakdown of disease caused by UV radiation

**Geneva** - Ultraviolet radiation from the sun causes a considerable global disease burden, including specific cancers, a new World Health Organization (WHO) report finds. Much of the UV-related illness and death can be avoided through a series of simple prevention measures.

The report, *Global Burden of Disease of Solar Ultraviolet Radiation* estimates that up to 60,000 deaths a year worldwide are caused by too much exposure to ultraviolet radiation (UVR). Of those 60,000 deaths, an estimated 48,000 are caused by malignant melanomas, and 12,000 by skin carcinomas.

In total, more than 1.5 million DALYS ("disability-adjusted life years") - a measure of the loss of full functioning due to disease and death are lost every year due to excessive UVR exposure. The most serious consequence of excess UVR is malignant melanoma, which has high cure rates only if detected early. Up to 90% of the global burden of disease from melanoma and other skin cancers are estimated to be due to UVR exposure.

The new WHO report is the first-ever systematic examination of the global health burden due to UVR. It investigates nine adverse health outcomes from excess UVR exposure. The main three, which cause the greatest burden of disease from UVR, are cutaneous malignant melanomas, and non-melanoma skin cancers developing in different cell layers of the skin (squamous cell carcinomas and basal cell carcinomas). In addition, UVR causes sunburn, skin photoageing, cortical cataracts (eye lens opacities), pterygium (a fleshy growth on the surface of the eye), reactivation of herpes of the lip (cold sores) and the rare squamous cell carcinomas of the eye.

"This global assessment of the health risks of UV radiation provides a good basis for public health action. We all need some sun, but too much sun can be dangerous - and even deadly - Fortunately, diseases from UV such as malignant melanomas, other skin cancers and cataracts

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are almost entirely preventable through simple protective measures," said Dr Maria Neira, Director for Public Health and the Environment at WHO.

The report notes that UVR does have beneficial effects, mainly in the production of vitamin D following skin exposure to the UVB (shorter wavelength) component of UVR. Adequate vitamin D prevents the development of bone diseases such as rickets, osteomalacia and osteoporosis. Moreover, the possible beneficial effects on some cancers and immune disorders are under investigation.

WHO notes, in most cases minimal casual exposure to UVR should be sufficient to maintain vitamin D levels at a range that avoids these health problems. The dangers are much greater from over-exposure to the sun's radiation.

A few easy-to-implement sun safety measures could prevent much of the cancer and other death and disease burden due to UV radiation, WHO says:

- Limit time in the midday sun
- Use shade wisely: seek shade when UV rays are most intense
- Wear protective clothing including hats and sunglasses
- Use a broad-spectrum sunscreen of sun protection factor 15+
- Avoid sunlamps and tanning parlours; for youth under the age of 18, WHO recommends that they do not use them at all
- Know the UV index: when the UV Index predicts radiation levels of 3 (moderate) or above
- sun safety practices should be taken
- Protect children from the sun

**More information on these measures can be found at <http://www.who.int/uv>.**

In conjunction with the launch of this new report, WHO and the World Tourism Organization of the United Nations (UN WTO) are joining forces to multiply global outreach efforts to inform the public and reinforce measures to prevent avoidable diseases. Through the UN-WTO, WHO will be distributing information, including its new UV flyer on healthy sun habits, to all national ministries responsible for tourism.

**The report and executive summary - Solar ultraviolet radiation: Global burden of disease can be found on <http://www.who.int/uv/en/>.**

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#### **For more information, contact:**

Ms Nada Osseiran, Communications and Advocacy Officer, Department for Public Health and Environment, World Health Organization, Geneva, Tel: (+41 22) 791 4475; Fax (+41 22) 791 4127, Email: [osseirann@who.int](mailto:osseirann@who.int). All press releases, fact sheets and other WHO media material may be found at [www.who.int](http://www.who.int).