WORLD HEALTH ORGANIZATION
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SUN PROTECTION AND SCHOOLS

How to Make a Difference

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Designed by Con Stamatis, The Cancer Council Victoria

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PREFACE

Overexposure to ultraviolet (UV) radiation from the sun and artificial sources is of considerable public health concern. It plays an important role in the development of skin cancer and eye damage (particularly cataracts), and suppresses the immune system.

Children are particularly at risk as (i) sun exposure during childhood and adolescence appears to set the stage for the development of both melanoma and non-melanoma skin cancers in later life, (ii) a significant part of a person's lifetime exposure occurs before age 18, and (iii) children have more time to develop diseases with long latency, more years of life to be lost and more suffering to be endured as a result of impaired health.

Prevention efforts in schools to change children's knowledge, attitudes and behaviour regarding sun protection can significantly decrease adverse health effects and health care costs.

Experts worldwide participated in the International Workshop on Children's Sun Protection Education, organized by the World Health Organization (WHO), held in Orvieto, Italy, on 4 October 2001.

Based on the outcomes of this workshop, WHO has developed a comprehensive package of materials for children's sun protection education.

This includes:

- *Sun Protection and Schools: How to Make a Difference*, which describes the importance of sun protection in schools, and outlines necessary steps for establishing a school programme.
- *Sun Protection: A Primary Teaching Resource*, which is for primary school teachers and provides suggestions and ready-made teaching activities.
- *Evaluating School Programmes to Promote Sun Protection*, which is for schools, and educational and health authorities.

This document, prepared by Drusilla Hufford, United States Environmental Protection Agency, and Eva Rehfuess, WHO, is intended for Ministries of Health and Education, as well as national and local authorities and non-governmental organizations active in the area of health promotion and sun protection programmes.

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WHY HAVE SUN PROTECTION PROGRAMMES IN SCHOOLS?

Overexposure to UV radiation causes serious health effects

The sun emits light, warmth, and ultraviolet (UV) radiation. It is a vital source of energy for all life on Earth, and without the sun, life as we know it could not be sustained.

Exposure to UV radiation also enables the human body to produce vitamin D, which plays a crucial role in skeletal development, immune function, and blood cell formation.

However, UV radiation is also of considerable public health concern. In the short term, overexposure to UV radiation causes tanning, sunburn, pain, and in severe cases, blistering of the skin. In the long term, UV radiation exposure accelerates skin ageing, and can lead to skin cancer and even death.

Sun exposure can also cause damage to the eyes, such as contributing to the development of cataracts. A further reason for concern is that UV radiation suppresses immune function, which may compromise the body's ability to resist disease.

worldwide. According to WHO estimates, up to 20% of these may have been caused or enhanced by sun exposure, especially in countries close to the equator, such as India and Pakistan.

Suppression of the immune system

UV radiation exposure suppresses the human immune system, potentially increasing the risk of infection and reducing the efficacy of immunization programmes. This could have serious implications, especially for children living in countries located close to the equator.

Children are at particular risk

Many believe that only fair-skinned people need to be concerned about overexposure to the sun. High levels of the skin pigment melanin reduce the risk of common skin cancers for people with darker skin.

However, even though the incidence of skin cancers is lower in dark-skinned people, skin cancers that do occur are often detected at a later, more dangerous, stage.

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