

SUN PROTECTIVE TEXTILES - PART I

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Introduction

Sun protective textiles are the textiles designed for sun protection and are produced from a fabric with their inherent fibre structure, the density of weave, and dye components, especially darker colours and indigo dyes. These fabrics are pure or blend of heavy-weight natural fibres like cotton, linen and hemp or light-weight synthetics such as polyester, nylon, spandex and polypropylene.

Alternatively, some textiles are treated with UV-absorbing/blocking chemicals to enhance their effectiveness.



Ultraviolet Radiation

It is the electromagnetic radiation or light having a wavelength greater than 100 nm but less than 400 nm.

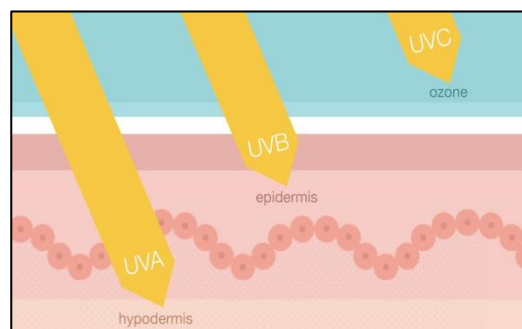


Fig 1.1 – Breaking down of UV Radiations



Effect of UV on human health

Exposure to the sun is known to be associated with different types of skin cancer, accelerated skin ageing. Frequent sun exposure and sunburn in childhood appear to set the stage for high rates of skin cancers later in life. Depletion of the ozone layer, which provides a protective filter against UV radiation, may further aggravate the problem. Other chronic skin changes due to UV radiation include injuries to skin cells, blood vessels and fibrous tissue, better known as skin ageing.

A long-term effect of UV radiation exposure of the eye causes different eye diseases. The immune system is vulnerable to modification by environmental agents such as UV radiation, which appears to diminish the effectiveness of the immune system.

To be continued.....

Wishing you a great week ahead!

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