

Howard Talks Tech

You don't have to be a mole & live in a hole to stay safe in the sun.

My title is a quote by Dr. Susan Weinkle, Asst. Clinical Professor of Dermatology at the University of S. Florida & introduces the protective value of clothing against UV rays.

Excessive UV radiation weakens the body's immune system as well as causing cancer. The American Cancer Society, says that skin cancer is the most common form of cancer in the US - about 1 million non-melanoma cases annually. Most skin cancer cases, up to 90%, are sun related. Individuals with skin types 1 & 2 should add UPF clothing to their wardrobe.

Table of Classification of Skin Types			
Type	Natural Skin Color	UV Sensitivity & Tendency to Burn	Skin Cancer Risk
1	Very fair, pale white, often freckled	Highly sensitive. Always burns, never tans.	Greatest risk of skin cancer.
2	Fair, white skin	Very sensitive. Burns easily, tans minimally.	High risk of skin cancer.
3	Light brown	Sensitive. Burns moderately, usually tans.	High risk of skin cancer.
4	Moderate brown	Less sensitive. Burns minimally, tans well.	At risk of skin cancer.

UPF is like SPF (Sun Protection Factor), the system used for sunscreen products. UPF gauges a fabric's effectiveness against both (UVA) & UVB light. SPF pertains only to a sunscreen's effectiveness against UVB rays, the sunburn-causing segment of the UV light spectrum.

The higher the UPF number, the greater degree of UV protection a garment offers. Basically, a UPF of 50 indicates the fabric of a garment will allow only 1/50th (roughly 2%) of available UV radiation to pass through. Clothing rated UPF 25 permits roughly 4% (1/25th) UV transmission. Nations including the USA followed Australia by adopting the UPF standards and labels for consumer awareness.

Protection Category	UPF Rating	% UV radiation Blocked
Good	UPF 15 - 24	93.3 - 95.9
Very Good	UPF 25 - 39	96.0 - 97.4
Excellent	UPF 40 - 50+	97.5 - 99+

Environmental influences including laundering, humidity, wetness, and degree of stretching play a major role in fabric ability to provide protection. **Note:** that fabrics are significantly less protective when wet. Synthetic fibers such as polyester, nylon, & acrylic can be more protective than natural fibers. Shiny fabrics provide higher levels of sun protection. An overall UV protection strategy includes the use of sunscreen, wearing UV-protective clothing and limiting the amount of time you expose yourself to UV (Sunlight) radiation. Tanning beds provide similar exposures.

These talks are distributed with the hope that they spark some dialog. Feel free to use them as the basis for a toolbox talk with your colleagues, clients, safety committee members or employees. HTT #: 61