

SUNSCREEN INFORMATION SHEET

Sunscreens are meant to be a complementary method of decreasing one's sun exposure. Sunscreens are not perfect. The number on the bottle indicates how much ultraviolet B is blocked. Ultraviolet B is strongest between 10 a.m. and 3 p.m. and causes most skin cancer. However, ultraviolet A can add to the cancer producing qualities. UVA intensity is more constant than UVB throughout the day and the year, and is the wavelength in tanning beds. Ultraviolet A penetrates the skin much more deeply than B and causes a structural damage to the skin, adding to the aging effect of the sun. It is responsible for damaging the collagen and elastic tissue, which supports the skin and superficial blood vessels. So, ultraviolet A causes wrinkling of the skin, and the easy bruising that older people experience. UVA leads to pigment changes in the skin, areas darker or lighter colored, causing a splotchy appearance in sun exposed skin. UVA also affects the immune system. Tanning bed usage increases melanoma risk.

Skin cancer is a concern to all. It is a result of several interactions. First, fair skin increases one's susceptibility because, there is less natural sunscreen. Second, is genetic susceptibility. During sun exposure cellular DNA is damaged. Usually, the immune system recognizes this damaged DNA and repairs it. However, if one is genetically lacking in this ability to repair DNA, damage can go undetected and may eventuate into skin cancer. Thirdly, most of the common skin cancers are from the chronic cumulative effects of the sun and, sunburns are not required. The critical amount of sun exposure varies greatly person to person. Also, sun exposure may suppress the immune system, increasing the chance abnormal cells will be undetected.

Of note, ten minutes of sun exposure every day for 70 years is equal to being in the sun 8 hours a day for around 1 1/2 years.

Melanoma, the most deadly skin cancer, which occurs in 1 in 70 people, is more related to severe blistering sunburns as a child. The presence of melanoma in a close blood relative increases one's own risk. Basal cell carcinoma, occurring in about 1 in 3 people, and squamous cell carcinoma, occurring in 1 in 20 people, are primarily associated with chronic, cumulative sun exposure.

Sunscreens can be compared to wearing a seatbelt in a car. You can decrease the chance you will get into trouble, but it doesn't mean you are immune to damage. Sunscreen should be complemented with proper clothing, hats and sunglasses, and avoidance of sun between 10 a.m. and 3 p.m. Solumbra and Coolibar clothing are special lines of clothing designed to equal an SPF 30 for UVB and UVA. Sunscreens should be at least a 15. Rit Sun Guard is a laundry additive which increases the sun protective factor of clothing to a SPF 30 and is good for 20 machine washes. It is available at the grocery store in the Rit dye section, generally. If water exposure is likely, use a waterproof sunscreen. Men with thicker hair often prefer the sunscreen sprays as they tend not to mat the hair together and feel lighter. If a lighter daily sunscreen is preferred, several facial sunscreens are available, such as Neutrogena moisture and Oil of Olay daily UVB protectant. The sunscreen ingredients which do the best job of blocking UVB and UVA are Parsol, also known as avobenzone, mexoryl, zinc and titanium. Zinc and titanium in a microsized form are cosmetically acceptable and are physical blockers. Examples of these types of sunscreens are the Neutrogena Chemical Free sunscreen for sensitive skin, SolBar Zinc 38 and also the Blue Lizard, pink bottle, sunscreen. Mexoryl, a chemical available in Europe for several years, is now approved in the U.S. Mexoryl is very good in UVA absorption but, is not widely available. People with skin which stings when sunscreen is applied should avoid PABA. Vanicream 30-60 and Blue Lizard sensitive or Baby are usually will tolerated. If possible, apply sunscreen an hour before exposure to allow it to bind to the skin. Apply it heavily and reapply every two hours and after swimming.