

# SUN PROTECTION

Now that we all know that the sun damages our skin, what are we doing about it? Brown spots, lines, scaly growths, precancerous skin lesions and skin cancers frequently appear on sun exposed surfaces and, once established, these changes are difficult to reverse. While skin cancers can appear at any age, they usually start showing up in the 50's or 60's, after much damage has been done. Some simple precautions are the best way to keep your skin looking young and cancer free.

Proper clothing is the first line of defense. Unlike sunblock and sunscreen, clothing is essentially chemical free and provides all day protection. Broad rimmed hats, long sleeve shirts, long pants and special swim wear protect most of the skin surface. Broad rimmed hats are superior to ball caps and visors because they help protect the neck and ears. Long sleeved crew neck shirts prevent sun damage on the arms and the "V" area of the chest. Cotton is a good fabric for fall through spring and synthetic blends work well in the summer. As with long sleeved shirts, long pants come in a variety of fabrics suited for each season. Finally, swim shirts are an excellent option for water sports.

Physical sunblocks are the next best choice after sun protective clothing. These products contain zinc and titanium dioxide. Zinc and titanium are opaque, and together, work by reflecting both UVA and UVB. These compounds are relatively inert and, because they have fewer and simpler chemicals, they are better than chemical sunscreens for people with sensitive skin. Physical sunblocks complement protective clothing by protecting exposed areas such as the face, neck and hands.

Chemical sunscreens contain various UV screening compounds such as octocrylene (UVB), ethylhexyl methoxycinnamate (UVB), oxybenzone (UVA2/UVB), avobenzone (UVA1/UVA2), homosalate (UVB). Combinations of these compounds may absorb ultraviolet radiation in the form of UVA1, UVA2, UVB, or all three and dissipate this energy as heat. In this group, select a sunscreen that effectively protects against both UVA and UVB. Protecting only against the sunburning UVB permits excessive exposure to the carcinogenic and skin damaging effects of UVA.

There have been reports that not all sunscreens or sunblocks have been living up to the manufacturers SPF ratings. Check the labels on your sunscreen and verify that it contains the ingredients needed to protect your skin against UVA and UVB. Remember that a face or body moisturizer with sunscreen will not resist water and sweat. Additionally, sunscreens are not as effective if not enough is applied. The average sized person should apply 30 ml (two tablespoons) of sunscreen for maximum effect.

It is likely that lack of exposure to sunlight will lead to low levels of vitamin D. Vitamin D is needed for bone maintenance and may have other beneficial effects. How much supplemental vitamin D is needed is a subject of uncertainty but can easily be determined by a blood test. While the current minimum daily guidelines recommend about 600-800 IU of vitamin D daily, the actual amount may be closer to 1000-2000 IU daily or more. As vitamin D is a fat soluble vitamin, too much vitamin D can accumulate in the body tissues and could theoretically be harmful as well.

What is SPF? The SPF number stands for the number of hours of sun exposure with the sunscreen that would equal the amount of sun exposure obtained after one hour of exposure without any sunscreen. In other words, staying in the sun for thirty hours with an SPF 30 sunscreen is equivalent to staying in the sun for one hour without any sunscreen. I recommend looking for the highest SPF sunblock or sunscreen with the simplest necessary ingredients, proven effectiveness, reasonable cost and cosmetic elegance.

Written August 7, 2016 by Seth J. Cohen, M.D.  
[www.hendersonvilledermatology.com](http://www.hendersonvilledermatology.com) 828-697-1170