

Preface
Sunscreens



Zoe Diana Draelos, MD
Guest Editor

Any area of medicine, including dermatology, focuses on the diagnosis and treatment of active disease and the prevention of either disease relapse or future new disease. In dermatology, few medications are more important in preventing serious disease than sunscreens. Sunscreens scatter or reflect ultraviolet (UV)-B or -A radiation from the sun. The same sun that gives the earth life, also damages DNA-producing actinic keratoses and causes precancerous growths indicative of mild DNA damage, and basal cell or squamous cell carcinomas, cancerous growths indicative of more severe DNA damage. UV radiation, in addition to other factors, also has been implicated in the most serious form of skin cancer, malignant melanoma.

The realization that sun exposure causes skin cancer through photoimmunosuppression and photo-damage, however, has escaped many generations of young people who worship the sun wearing scant clothing in mid-day sun. The warming, energizing effect of the sun and the joy of frolicking outside on a sunny day cannot be ignored. Sunscreens provide a method of enjoying the sun in a safer manner. They are not meant to replace common sense in the selection of the time for outdoor activities or the use of protective clothing, but they are the only mechanism available for decreasing the chance of developing skin cancer at a later date.

Sunscreens have been somewhat controversial recently, as some argue that sunscreen use actually increases the risk of skin cancer by encouraging people to increase the amount of time they spend in the sun. This is not the intent of sunscreens. They are intended for use while in the sun for protection, not to extend sun exposure. Further controversy has been generated by nondermatologists who believe people are becoming vitamin D-deficient because of sunscreen use. If only sunscreens were so effective as to block out all of the UV radiation. Although this argument is certainly valid, it is not a major concern, because the erratic application of sunscreens does not confer this degree of UV protection.

The need for an improved understanding of sunscreens, including how they work, how they are formulated, and how they are used, formed the impetus to put together this issue. Sunscreens are unique in that they are classified as over-the-counter drugs. This means that they only can contain ingredients that have been approved and monographed by the US Food and Drug Administration. This has hampered the introduction of new sunscreen ingredients in the United States; the variety of sunscreens is much greater in Asia, Europe, and South America. This issue will focus on sunscreens as they are marketed and regulated in the United States with an eye to the future as to what new technologies might be expected.

Sunscreens are the most important part of the preventative armamentarium of the dermatologist. Even though sunscreens are not prescription drugs, they do represent important drugs, and demand understanding. It is the goal of this issue to impart that understanding in a concise, thorough manner.

Zoe Diana Draelos, MD
Department of Dermatology
Wake Forest University School of Medicine
Winston-Salem, NC, USA
E-mail address: zdraelos@northstate.net