



Feeling the Heat

Insight about sun damage.

by Dr. Ariel Ostad

Most people like to get some sun. Its warmth and light can relax our spirits, and the rays tan the skin.

But the benefits come with dangerous trade offs. Each year more than 1 million cases of skin cancer are diagnosed in the United States, over 90 percent of which are caused by the sun's ultraviolet rays. It is known through medical research that the majority of skin cancers are due to sun exposure during the early teenage years, as well as in ones 20s. Similarly, most of the skin damage we associate with aging, such as wrinkles, sagging, leathering and discoloration, is sun-related. This damage is cumulative. Therefore, whenever you venture out in the sun, be smart about it. To enjoy what the sun has to offer without risking your health, follow these simple rules.

1. Seek the shade, especially between 10am and 4pm, when the sun's rays are usually strongest. If you are outside, try to find the shade or remain under a sun umbrella. Also try to be outdoors in the early morning and late afternoon, when the sun's rays aren't as strong as mid-day.
2. Don't burn. Even a single sunburn increases your risk of developing melanoma later on in life. (Melanoma is the deadliest form of skin cancer.) Research shows that suffering five or more sunburns doubles your lifetime risk of developing skin cancer. When you see or feel your skin beginning to turn red, seek shade. And avoid spending long periods of time in the sun. Again, it is during your teens and tweens when the sunburn that occurs results in the majority of skin cancers later on in life.
3. Resist tanning and ultraviolet tanning booths. A tan is never safe, whether you acquire it on the beach or in the salon. Tanning salon operators may state that new bulbs are safe and that exposure is good for vitamin D production, however, neither statement is true. In general, it is possible to obtain vitamin D through vitamin D-rich foods such as salmon, fortified milk and orange juice. Besides, the sunlamps used in tanning salons emit ultraviolet ray doses that are 15 times stronger than the sun. When unprotected skin is overexposed to ultraviolet radiation, your DNA is damaged; a tan is the skin's attempt to prevent further damage by creating a wall of darker pigment. This damage that has already occurred can lead to changes or mutations in your skin's DNA, which can lead to skin cancer down the line.
It has been shown that people who use tanning booths are much more likely to develop squamous cell carcinoma and basal cell carcinoma, which are the most common forms of skin cancers. Young people including teenagers and tweens are especially sensitive to the ultraviolet rays emitted from tanning booths. Research has revealed that even occasional sun bed use almost triples the chance of developing melanoma.
4. Cover up with clothing including a broad-brimmed hat and UV-blocking sunglasses. Clothing can be your most effective form of sun protection, so make the most of it. The more skin you cover the better. Choose long sleeves and long pants whenever possible. Glasses that block sun's ultraviolet rays effectively shield both eyes and the surrounding skin, helping to prevent serious conditions like cataracts and melanomas.
5. Use sunscreen with a sun protection factor (SPF) of 15 or higher every single day. SPF measures how much longer skin with sunscreen can be exposed to the sun's ultraviolet B rays before burning compared to how long it takes to burn without protection. If you correctly use sunscreen with an SPF of 15, it would prevent sunburn 15 times longer than not using sunscreen. However, the high SPF alone is not enough. SPF measures protection against ultraviolet B, but not against the sun's ultraviolet A rays. Research has shown that ultraviolet A penetrates the skin more deeply than B rays and can cause more damage and result in aging of the skin. Look for sunscreens that offer broad-spectrum protection including against ultraviolet A and ultraviolet B rays. Remember to use sunscreen daily in every

kind of weather, because sunlight reflects off of snow, ice and water. It has also been shown that on overcast days, 70-80 percent of the sun's rays travels through clouds.

People who are vulnerable to sun damage are people who have fair skin, blond hair and blue-green eyes. Getting out to exercise is good for everyone, but it is important to protect your skin and eyes from the sun, no matter what activities you enjoy. Make sure you apply sunscreen liberally to your entire body and reapply it every two hours, as well as after swimming or sweating.

A board-certified dermatologist and dermatologic/mohs surgeon, Dr. Ariel Ostad is currently a clinical assistant professor in the Department of Dermatology at New York University Medical Center, is a course instructor for the American Academy of Dermatology, and is frequently called on to lecture about laser surgery and skin cancer. Dr Ostad's office is located at 897 Lexington Ave. in New York City. To make an appointment, call (212)517-7900.