

Sun Safety and Skin Cancer Prevention

By Howard Woodwind Morningstar, MD

The skin is the border of the physical self. It protects us from heat and cold, from harmful chemicals and radiation, and from invasion by disease causing micro-organisms, literally keeping our physical bodies together and distinct from the external environment.

The skin is much more than a passive barrier. It's an interface that determines what we let in to our bodies and what we let out, how we touch and are touched, how we heal and are healed. As the body's major sensory organ, the skin is closely linked to the mind. As a result, symptoms that manifest in the skin are almost always expressions of inner imbalance or emotional upset.

The skin actively regulates body temperature through perspiration. It excretes unwanted waste through its pores, working together with kidneys, lungs and the digestive tract to maintain a healthful inner environment. It produces our hair, nails and a variety of protective substances that allow us to function in harsh conditions. One of these, the pigment melanin, is produced by specialized skin cells called melanocytes. Its role is to help protect us from the sun's harmful ultraviolet radiation.

In the right dose sunlight is vital for physical and spiritual well being. For example, it is needed for the skin to convert inactive vitamin D in food to its active form. In newborns, sunlight helps transform potentially harmful bilirubin to its inert form. Sunlight also contributes to a general feeling of well-being. In many people, lack of sun can cause the syndrome called Seasonal Affective Disorder, which is a tendency towards depression in the dark winter months.

However, as in all things, balance in sun exposure is crucial in maintaining health. Excessive sun exposure will cause immediate health consequences, such as sunburn and sunstroke. In the long term, over exposure to the ultraviolet radiation in sunlight is strongly associated with lifelong risks of developing cataracts and skin cancers.

Mother Earth has provided us and other living beings with a protective layer of ozone to prevent these potentially devastating illnesses. Sadly, environmental pollution with aerosolized chlorofluorocarbons (CFCs) and other chemicals is resulting in ongoing depletion of this protective layer. This ongoing injury to our planet's ability to take care of us is accelerating the current global epidemic of skin cancer.

There are three major types of skin cancer. The most common are basal cell and squamous cell carcinoma. Most of these are easily curable if treated early. Malignant melanoma is more deadly, as it tends to spread throughout the body. Ironically, it's caused by uncontrolled growth of the same melanocytes cells that protect us from sun induced skin damage.

Despite these risks, with a little common sense we can and should continue to enjoy the wonderful benefits of sunlight, while minimizing our risk of harmful exposures and skin cancer.

First: Know your skin type. Fair skinned people with light colored hair and eyes, and those who freckle and burn easily are at the highest risk for skin damage and cancer. Those who have darker hair, eyes and skin color, indicating more protective melanin have a decreased risk.

Next: Avoid sunburn. You should tan gradually, allowing your protective melanocytes to produce more melanin and build up resistance to sun burn. It's best to avoid sun exposure between 10 AM and 3 PM, when the sun is most intense. Cover up and protect yourself with a wide brim hat and loose cotton clothing that blocks ultraviolet light. Wear sunglasses that filter ultraviolet light, as this reduces your risk of losing your vision from cataracts. It's especially important to protect your childrens' eyes and skin.

Be aware of your sun exposure. You can burn more on days with light overcast clouds, as they let burning ultraviolet rays pass through, but you don't feel the heat. Working or playing at high altitudes, as in the clear air of our beautiful mountains will increase exposure. Water, sand and snow reflect ultraviolet radiation extremely well and can double your exposure.

Use sunscreen products with an "SPF" (sun protection factor) sufficient for your skin type and intended exposure. For example, if you are fair skinned and are out in bright sun that would ordinarily cause a burn in 16 minutes, a properly applied sunscreen with an SPF rating of 15 would give you 15 times 16 minutes, or 240 minutes before you burn. Apply sunscreen at least 30 minutes before sun exposure, and reapply it throughout the day. Be especially aware of burn-prone areas, such as the lower lip, nose, ears and back of the neck.

In addition to your skin type, other factors can influence your risk of sun induced skin damage and skin cancer. If you have an immune disorder, such as lupus or AIDS, or a family or personal history of skin cancer, your risk is increased. Also, certain common medications can increase your skin's susceptibility to sun damage. These include sulfa and tetracycline antibiotics, some antihistamines, birth control pills, certain pain medicines, barbiturate sedatives, antidepressants, diabetes pills and some types of fluid pills. In addition, certain foods and herbs can increase your skin's photosensitivity. These include some citrus fruits (so eat them in winter, when they are fresh), vitamin A derivatives and supplements, and herbs such as parsnips, fennel, dill and St. John's Wort.

In addition to avoiding sunburn, proper diet and a healthful lifestyle can help reduce your risk of skin cancer. A diet that is high in antioxidant nutrients, such as vitamin A rich vegetables, including carrots and sweet potatoes is helpful. Cruciferous vegetables such as broccoli, cabbage and kale, along with vitamin E rich foods, such as leafy greens, wheat germ and asparagus also have cancer preventing properties. Rose Hips and other sources of vitamin C and supplementation with the trace mineral Selenium may also be beneficial.

If you do get sunburned, know how to help your body repair the damage and restore a healthful balance to your skin. In first degree sunburns, your skin becomes red, warm and painful after sun exposure. Treat these by applying fresh Aloe Vera juice, Calendula and St. John's Wort salve, or Comfrey leaf poultices. Rest, cool baths and drinking plenty of water and Chamomile

tea are also helpful. Of course, avoid any further sun exposure until completely healed.

Second degree and more severe sunburns with significant blisters, tissue swelling or systemic symptoms such as high fever or delirium are usually best treated in consultation with a knowledgeable health care professional.

Finally, it's important to know and screen your own skin for changes that could indicate developing skin cancer. Check your skin regularly with a friend or partner's help (for those hard to see areas). Look for any unusual or changing discolorations or scaly irritated area. You should be particularly aware of any new moles, especially if they are growing, have irregular borders and are multicolored. Any of these, or any blemishes that don't heal should be professionally evaluated.

This overview is presented for educational purposes only. The mindful use of herbal medicines creates a greater harmony between human culture and Mother Earth. Ultimately, it is this partnership that brings success to all healing endeavors.

This article originally appeared in ***Sentient Times***.

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