



Health Tips why use sunscreen?

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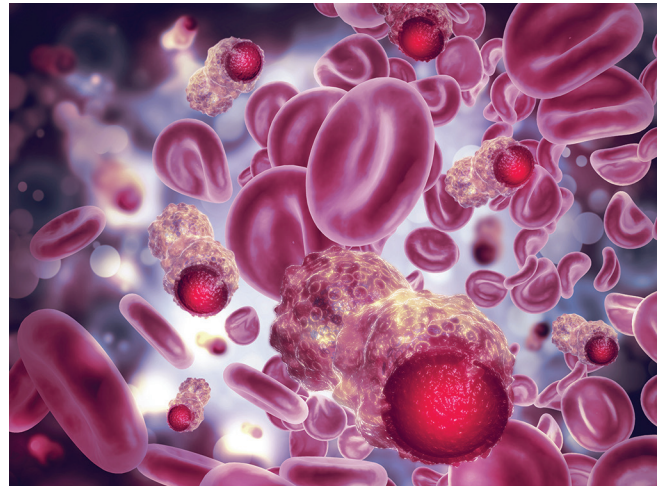
Warmer weather is upon us and everyone is ready to get back outside and enjoy the season! Although it is recommended to use a daily sunscreen throughout the year, now is the time of year to remember to apply additional sunscreen when you go outside for prolonged periods of time. Forgetting sunscreen can increase your chance of getting skin cancer, but can also encourage premature aging of your skin.



Skin cancer makes up one half of all new cancers per year with over one million new cases being diagnosed every year. Skin cancers can affect people of any age, including children and teenagers. The American Academy of Dermatology refers to skin cancer in the U.S. as an unrecognized epidemic.

Sunscreen provides protection against skin cancer by blocking UVB radiation. UVB radiation is responsible for causing damage to the cells DNA (genetic code). This can result in mutations in the cells, which in turn can result in cancerous growth of the cells. Sunscreen helps to form a protective layer on the skin that reflects and absorbs the UV radiation before it can enter the skin cells and damage their DNA.

Unprotected sun exposure is also responsible for premature aging of the skin. As much as 75% of aging changes of the skin can be attributed to sun exposure, including: wrinkles, coarse/leathery skin, pigmentation, irregularities and broken capillaries.



Solar elastosis is a term that is used to describe the loose, sagging skin that results as the sun breaks down the skin's connective tissue – collagen and elastin. UVA radiation exposure enters the skin and causes reactive oxygen species (free radicals) that break down these structural components of the skin. The result is thinning of the skin and laxity appears as fine lines and wrinkles.

It is important to remember that sunscreen does not block 100% of the sun's radiation. Other ways to help protect the skin from the sun's damaging effects include: avoid prolonged sun exposure when the radiation is strongest (11AM to 3PM), wear a

hat with a wide brim guard and wear sunglasses that

provide UVA and UVB protection. UV resistant clothing may be worn as well. Sunscreen should be a broad spectrum (UVA and UVB) water resistant sunscreen with SPF 30 or higher.





How does sun exposure cause premature aging of our skin?

Lambros K. Viennas, MD, FACS

As we enjoy spending time outdoors, the sun's invisible ultraviolet rays affect the health of our skin. Ultraviolet A (UVA) and Ultraviolet B (UVB) penetrate the atmosphere damaging skin and causing wrinkles, small brown spots, rough texture, loss of elasticity, and leathery appearance. This process, termed photoaging, is influenced by skin type, ethnicity, geographic location, extent of sun exposure and sun protective measures.

People who have fair skin and ethnic origin of northern European descent have a higher chance of developing premature aging of the skin due to sun exposure. Although darker skin color is more protective due to increased melanin in the skin, the practice of tanning does not prevent the sun's damaging effects. Geographic location also plays a role in the amount of ultraviolet ray exposure which increases in higher altitudes and present in greater levels near the equator. By using sunscreen, avoiding the sun during peak hours, and wearing protective clothing the cumulative effect of photoaging can be reduced.

UVA is considered the major cause of premature aging, whereas UVB is responsible for sun burn, skin cancer and immunosuppression. UVA penetrates into the deeper skin layers activating cellular factors and mediators that promote collagen breakdown and inhibit collagen synthesis. With repeated sun exposure, the loss of collagen results in photoaging.

Minimally invasive procedures can be used to help reverse some of the photoaging such as topical retinoids to increase collagen, improve texture, and improve fine lines. Chemical peels are employed for skin tightening and to even skin tone. Botox can reduce dynamic wrinkles and fillers are indicated for static lines.

But the best treatment is prevention.



Skin Cancer

Edward Prodanovic, MD

Skin cancer is the uncontrolled growth of abnormal skin cells. It occurs when there is DNA damage to skin cells, most often caused by ultraviolet radiation from sunshine or tanning beds. More people are diagnosed with skin cancer each year in the U.S. than all other cancers combined and 1 in 5

Americans will develop skin cancer by the age of 70.

The most common forms of skin cancer are basal cell carcinoma, squamous cell carcinoma, and melanoma. Each subtype of skin cancer has unique characteristics. Most skin cancers occur on parts of the body that are repeatedly exposed to the sun, such as the head, neck, face, tips of the ears, back, chest, arms and legs. Melanoma can also grow in hidden areas of your body, such as between toes, nails, and on the scalp. It is less common than basal and squamous cell carcinomas, but it is more likely to grow and spread.

Risk factors for forming a skin cancer include exposure to ultraviolet light (including sunlight and tanning beds), a light or fair complexion, those with an easy tendency to burn in the sun, a family history of skin cancer especially melanomas, those with abnormal moles or more than 50 moles, certain genetic conditions, and patients with a weakened immune system.

Most skin cancers can be completely cured with early detection and treatment. Check your skin thoroughly each month. Use a full-length mirror and a handheld mirror to check every inch of your skin, including your private areas and feet. Be familiar with your birthmarks, moles, and blemishes. Check for a sore that doesn't heal or for anything new, such as a change in the size, texture, or color of a mole. Be sure to see your dermatologist each year for a professional skin exam.

Remember that there is no such thing as a safe or healthy tan. In fact, it is a visible sign that some skin damage has occurred because a tan is the body's attempt to protect itself from the sun's harmful rays. Tanning booths are just as dangerous as spending a lot of time in the sun.

Avoiding excessive exposure to ultraviolet radiation can reduce the risk of skin cancer development. This can be achieved by avoiding sunburns, avoiding tanning lamps and beds, avoiding the highest sun intensity between 11 am and 3 pm, wearing sun protective clothing, finding shaded areas, using sunscreen with a minimum sun protection factor (SPF) of at least 30, as recommended by the American Academy of Dermatology, and reapplying every 2 hours and after swimming to maintain adequate protection.

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