

Skin Cancer and Sun Screen

By Martha Hunt, MA, CAMF

Health Promotions Coordinator, Robert E. Bush Naval Hospital

Your skin is the largest organ of your body and it is constantly renewing itself throughout your life. Skin protects us from heat, light, injury, and infection and stores water and fat. It keeps itself moist and intact to the best of its ability but sun, heat, dryness and chemical exposure works against your skin to damage it and dry it out. We need some exposure to sunlight for Vitamin D production, however, over exposure to the sun leads to skin cancer, premature aging of the skin and wrinkling. Also, over the age of 50 our skin doesn't make as much vitamin D as it used to, putting us at risk for vitamin D deficiency.

Skin cancer is the most common form of cancer with over one million Americans every year being diagnosed with skin cancer and almost 10,000 dying from it. Half of all Americans who live to age 65 will be diagnosed with some form of skin cancer. UVA & B radiation from the sun is the leading cause of skin cancer, however UVC radiation from sun lamps and tanning booths also cause skin cancer. Cases of skin cancers are more likely to occur where there is brighter and stronger sunlight such as nearer the equator or at high altitudes. In other words, here in the high desert!

Ninety percent of all skin cancers develop on the face, neck and arms where sun exposure is the greatest. Those individuals at highest risk for skin cancer are those who have light skin, hair and eyes, a family history of skin cancer, chronic exposure to the sun, a history of bad sunburns early in life, or have lots of moles or freckles. However, everyone is at risk of skin cancer, no matter how dark ones' skin or hair.

Skin cancer growths occur when normally dividing skin cells begin to grow abnormally. UV rays damage the DNA of skin cells and causes them to reproduce abnormally. Once a cells' DNA is damaged, the damage is permanent and is replicated over and over until an abnormal patch of cells is seen on the surface of the skin. There are over 100 different types of skin cancer, depending on what layer of the skin they are found and what types of skin cells are affected.

In fact, the damage to your skin only needs to be 1 mm deep or the size of this “-“ to cause damaged cells which then find their way into your blood stream. Once these skin cancer cells find their way to your blood stream you can develop skin cancers in any organ of your body.

What to look for -

- * Patches of skin that tend to bleed or ooze,
- * Open sores that don't heal,
- * Patches that have an irregular shape or edges to them,
- * Patches that have varied colors in their pigmentation,

- * Growths larger than the width of a pencil eraser,
- * Patches that have a scaly, crusty or bumpy appearance to the surface of them, or
- * Growths that itch or are tender and painful.

Sun screen works by blocking out some, but not all, of the UV A and B rays. Sun screen does not protect against UV C radiation. The higher the SPF value, the greater the protection from burning. Use a sun screen that blocks both UVA and UVB radiation as they both cause skin cancer and burning. UVA rays cause damage deep into the skin while UV B rays damage the surface layers. Exposure to UVA and UVB radiation has also been associated with non-Hodgkin's Lymphoma and with eye cancers, specifically on the cornea and the conjunctiva (the white part).

If you will be in the sun more than 15 minutes, wear sun screen with an SPF value of 20 or greater. Older adults should always use a sun screen with an SPF of 30 or higher. Apply sun screen at least 30 minutes before going out into the sun and re-apply every 2 to 3 hours.

Since sun screen alone is not 100% effective against the damage produced by UV rays, take other protective measures as well. When outdoors in the sun, wear hats, sunglasses, light colored, loose fitting clothing, full length pants and socks to reflect the heat and allow your skin to breathe. Check all areas of your skin surfaces regularly for any changes. If you can't see a certain area of your skin, use mirrors or get a friend to check for you. Call your doctor if you have patches of skin or growths on your skin that bleed or change shape or color. If you have a family history of skin cancer, alert your doctor and watch your skin carefully for changes.

Drink plenty of water and other replenishing liquids (not alcohol or caffeine) to help your skin sweat and cool itself. Avoid the sun between 10 am and 3 p.m. whenever possible as the sun's rays are the most damaging. You can burn even on a cloudy day as 80% of the sun's rays still penetrate through clouds.

Teach your kids early about the dangers of the sun as most skin damage occurs before the age of 20. Never use sun screen on infants less than 6 months of age as the chemicals in sun block are absorbed directly into their body and may irritate their skin. Rather keep them out of direct sun and always make sure they are covered with hats and baby sunglasses..

Damage from the sun is cumulative over your life span and builds up over time. The DNA damage you received from that sun burn when you were a teen is still with you and will never go away. The best protection from skin cancer is to avoid direct exposure of your skin to the sun. When that is not possible, use sun screen to help reduce the absorption of UV rays and the DNA damage that results. You only have one skin, wear it well.