

## Safeguarding the Body's Sentry: Q&A with Joel Baumgartner, MD

By Yadira Galindo | May 07, 2015



Skin is the largest and fastest growing organ in the human body. It envelopes all of our other organs, muscles and bones. It is our first line of defense against invasive pathogens. It helps regulate body temperature. It facilitates your sense of touch. Given such vital roles, it's critical to safeguard the protector from sun damage, not just during the coming summer months, but year-round.

Skin cancer makes up almost half of all cancers in the United States. According to the American Cancer Society, 3.5 million cases of basal and squamous cell skin cancer are diagnosed nationally each year. Approximately 73,000 new cases of melanoma, the most serious type of skin cancer, are expected to be diagnosed in 2015.

**Joel M. Baumgartner, MD**, a UC San Diego Moores Cancer

Center surgical oncologist with expertise in cancers of the gastrointestinal tract and melanoma, offers a few simple tips for reducing the risk of skin cancer.

**Question:** Most moles on most people are harmless. When should a mole be examined by a medical expert?

**Answer:** It's true that most moles are harmless and will never develop into a cancer. However, there are certain features that a mole may have that should prompt further evaluation – the so-called ABCDE criteria. Moles that are Asymmetric, have an irregular Border, have Color variation, have a Diameter greater than 5 millimeters or are Evolving (changing) should be seen by a medical expert. Another high risk feature is the “ugly duckling” sign, in which one mole looks markedly different from the others. These should also be further evaluated.

**Q:** What type of sunscreen is best to prevent skin cancer?

**A:** Different sunscreens contain a variety of compounds which act as filters to block or reflect ultraviolet (UV) radiation. The specific filter used is not as important as the spectrum of UV protection. Sunscreens that are labeled “broad spectrum” block UVA and UVB radiation, and should be used over those that only block UVB, as UVA is also thought to contribute to skin cancer. For daily use, sun protection factor (SPF) 15 is sufficient for most individuals, while SPF 30 should be used for outdoor activities in sunny conditions. Sunscreen should be applied liberally (one ounce for the entire body) to sun-exposed areas 15 to 30 minutes prior to activities in the sun, and it should be re-applied at least every two hours.

**Q:** Is there anything else besides sunscreen people can use to prevent skin cancer?

**A:** In addition to sunscreen, other UV protection measures include avoiding the sun during peak hours of the day (10 am to 3 pm) and using sun-protective clothing, such as hats and tightly-woven, dark-colored clothing.

**Q:** Are only young people who use tanning beds or layout at the beach at risk of skin cancer?

**A:** It is true that UV exposure is a major risk factor for developing skin cancer. It is also true that heavy UV exposure in the young is especially risky because skin cells are damaged early in life and have many decades to become cancerous. However, most people have only accumulated about 25 percent of their total lifetime UV exposure by age 18, so UV protection measures as an adult can still help reduce the risk of UV-related skin cancers. It is also important to remember that UV exposure is only one risk factor for skin cancers, as genetics and other environmental factors play a role as well. However, UV protection is the one risk factor that can be modified. So one should know one’s family history of skin cancer and do self-skin checks, in addition to practicing UV protection.

**Q:** Sun exposure is an important source of vitamin D, but how much unprotected sun is okay?

**A:** Vitamin D must be acquired by oral intake (diet) or by sun exposure of the skin. Sunscreen does reduce the amount of vitamin D created in the skin. However, in no studies of real-life sunscreen use have individuals been found to have vitamin D deficiency from sunscreen. The amount of vitamin D created in the skin varies by region and skin type. In San Diego, for individuals with no oral vitamin D intake, the amount of sunlight exposure without sunscreen required for sufficient vitamin D synthesis is as little as five minutes per day.

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