

SKIN CANCER

There are three main types of skin cancers.

Basal cell carcinoma, squamous cell carcinoma and melanoma.

Basal cell carcinoma and squamous cell carcinoma (non-melanoma skin cancer) are the most common forms of skin cancer and have substantially better cure rates (prognoses) than the less common, generally more aggressive, melanoma.

Non-melanoma skin cancer is the most commonly occurring cancer in the United States. Its incidence appears to be increasing in some but not all areas of the United States. Overall U.S. incidence rates have likely been increasing for a number of years.

Some of this increase may be attributable to increasing skin cancer awareness resulting in increasing investigation and biopsy of skin lesions. A precise estimate of the total number and incidence rate of non-melanoma skin cancer is not possible because reporting to cancer registries is not required.

It has been estimated that the total number of persons treated for non-melanoma skin cancers in 2006 was about 3.5 million. This would exceed all other cases of cancer estimated by the American Cancer Society for that year which was about 1.4 million.

In 2015, it is estimated that nearly 74,000 individuals in the United States will be diagnosed with melanoma and approximately 9,940 will die of it. The diagnosis of melanoma may follow the five key signs – the ABCDEs. A – Asymmetry, B – Border uneven, C – Color black and brown, D – Diameter usually greater than that of the eraser on the tip of a pencil (1/4 inch), E – Evolving or changing size and shape (see image).

The incidence of melanoma has been increasing for at least 30 years. From 2007 to 2011, incidence rates were stable in men and women younger than 50 years but increased by 2.6% per year in women aged 50 years and older. Mortality rates decreased by 2.6% per year in individuals younger than 50 years but increased by 0.6% per year among those aged 50 years and older.



Risk Factors

Epidemiologic evidence suggests that exposure to ultraviolet (UV) radiation and the sensitivity of an individual's skin to UV radiation are risk factors for skin cancer, although the type of exposure (high-intensity and short-duration vs. chronic exposure) and pattern of exposure (continuous vs. intermittent) may differ among the three main types of skin cancer.

In addition, the immune system may play a role in the development of skin cancers as organ-transplant recipients receiving immunosuppressive drugs are at elevated risk of skin cancers, particularly squamous cell cancers (SCC). Arsenic exposure also increases the risk of SCC.

The incidence of melanoma rises rapidly in Caucasians after age 20 years. Fair-skinned individuals exposed to the sun are at a higher risk.

Individuals with certain types of pigmented lesions (dysplastic or atypical nevi) with several large non-dysplastic nevi, with many small nevi, or with moderate freckling have a twofold to threefold increased risk of developing melanoma.

Individuals with familial dysplastic nevus syndrome or with several dysplastic or atypical nevi are at high (greater than fivefold) risk of developing melanoma.

SKIN CANCER SCREENING

Evidence of Benefits Associated With Screening

More than 90% of melanomas that arise in the skin can be recognized with the naked eye. Very often there is a prolonged horizontal growth phase during which time the tumor expands outwardly beneath the epidermis (skin surface) but does not invade the underlying dermis. This horizontal growth phase may provide lead time for early detection. Melanoma is more easily cured if treated before the onset of the vertical growth phase with its potential to spread (metastasize). The probability of tumor recurrence within 10 years after surgical removal is less than 10% with tumors less than 1.4 mm in thickness. For patients with tumors less than 0.76 mm in thickness, the likelihood of recurrence is less than 1% in 10 years.

A review of skin cancer screening has examined evidence available through mid-2005 and concluded that direct evidence of improved health outcomes associated with skin cancer screening is lacking. However, this does not mean that skin cancers (whether melanoma or non-melanoma) are unimportant or can be neglected without adverse consequences. When neglected, skin cancers can be disfiguring and/or cause death. Skin cancers are easily detected clinically and are often cured by complete removal (excisional biopsy) alone.

Various observational studies exploring the possibility that melanoma screening may be effective have been reported. An educational campaign in western Scotland, promoting awareness of the signs of suspicious skin lesions and encouraging early self-referral, showed a decrease in mortality rates associated with the campaign. In northern Germany, one region that received a skin cancer screening program during 2003 and 2004 was compared with four nearby regions that received no skin cancer screening program. The two-stage skin cancer screening program began with a total-body visual examination of the skin by a general practitioner; if skin cancer was suspected, the patient was re-examined by a dermatologist. Nineteen percent of all those eligible were screened. The melanoma mortality rates were decreased in the years after the screening program in the screened region (1.7 per 100,000 in 1998–1999 to 0.9 per 100,000 in 2008–2009), whereas the melanoma mortality rates either stayed the same or increased in the comparison regions. Because of numerous methodological limitations such as the lack of randomization, lack of an internal control group, and relying on the region-level data rather than individual-level data to assess outcomes, these data provide only weak evidence that the screening program reduced the death rate from melanoma. A thorough consideration of the harms were not provided in the studies, such as the harms associated with false-positive tests and over-diagnosis. Of note, four out of five skin lesions excised in the screening program were found to be harmless (benign).

Evidence of Harm Associated With Screening

Harms have not been well studied or reported. Visual examination of the skin in individuals without symptoms may lead to unavoidable adverse consequences. These include complications of diagnostic or treatment interventions (including extensive surgery) and the psychological effects of being labeled with a potentially fatal disease. Another harmful consequence of screening is over-diagnosis leading to the detection of cancer which may not progress or be harmful and could have gone undetected. The possibility of misdiagnosis of a benign lesion as malignant would lead to unnecessary treatment.

The Strang Cancer Prevention Cookbook

Reduce your Risk for Cancer by Eating a Healthy Diet!

Healthy Tuna Salad 4 Servings

1 7- oz. can white packed tuna in water
3/4 cup shredded carrot (about 2 medium carrots)
1 cup broccoli florets (3 ounces blanched if desired)
1/2 small red onion (about 2 ounces) diced fine
1 medium celery rib (about 2 ounces) diced
2 teaspoons fresh lemon juice
1 teaspoon grated lemon zest
1/2 cup 1% cottage cheese, pureed in a food processor if desired or low-fat sour cream
2 tablespoons low-fat mayonnaise
Freshly ground pepper to taste

Drain the tuna. In a medium bowl mix it with the remaining ingredients

Calories 120, protein 17 g, carbs 6 g, fat 3 g, cholesterol 16 mg, dietary fiber 2 g, saturated fat 1 g

MAJOR SOURCES OF POTENTIAL CANCER FIGHTERS

Phytochemicals: allium compounds, glucosinolates, omega-3 fatty acids, plant polyphenols (flavonoids) plant sterols, terpenes, carotenoids, monoterpenes, limonene, triterpenes)

Recipe by Laura Pensiero, R.D. Owner Gigi Trattoria, Rhinebeck, New York



SKIN CANCER PREVENTION * The 10 Do's and Don'ts

Avoid Skin Exposure to Sunlight Protection from ultraviolet (UV) radiation is important all year round, not just during the summer or at the beach. UV rays from the sun can reach you on cloudy and hazy days, as well as bright and sunny days. UV rays also reflect off of surfaces like water, cement, sand, and snow. Indoor tanning (using a tanning bed, booth, or sunlamp to get tan) exposes users to UV radiation and has been shown to significantly increase the risk of skin cancer including melanoma.

Seek out Shade Reduce your risk of skin damage and skin cancer by seeking shade under an umbrella, tree, or other covered area. Protect your skin with sunscreen or wear protective clothing when you're outside—even when you're in the shade.

Wear Appropriate Clothing Loose-fitting long-sleeved shirts and long pants made from tightly woven fabric offer the best protection from the sun's UV rays. A wet T-shirt offers much less UV protection than a dry one. Darker colors offer more protection than lighter colors. If wearing this type of clothing isn't practical, at least a T-shirt or a beach cover-up should be worn. Keep in mind that a typical white cotton T-shirt has an SPF of 4, so use other types of protection as well. Some fabrics have an SPF in excess of 100.

Wear Hats For the most protection, a hat with a brim all the way around that shades your face, ears, and the back of your neck should be worn. A tightly woven fabric, such as canvas, works best to protect skin from UV rays. Avoid straw hats with holes that let sunlight through. If you wear a baseball cap, you should also protect your ears and the back of your neck by wearing clothing that covers those areas, using sunscreen with at least SPF 30, or by staying in the shade.

Wear Sunglasses Sun glasses protect the eyes from UV rays and reduce the risk of cataracts. They also protect the tender skin around your eyes from sun exposure and protect the eyes from developing melanoma (especially important for people with light colored eyes). Sunglasses that block both UVA and UVB rays offer the best protection. Most sunglasses sold in the United States, regardless of cost, meet this standard. Wrap-around sunglasses work best because they block UV rays from entering from the side.

Use Sunscreen The sun's UV rays can damage the skin in as little as 15 minutes. Apply sunscreen before going outside, even on slightly cloudy or cool days. Use a golf ball or ping pong ball size amount to cover the entire body. Get help for hard-to-reach places like the back and don't forget areas like the tops of the feet, the ears and the back of the neck. Make sure your sunscreen is broad spectrum, and if you are playing water sports, make sure to re-apply after excessive sweating or water exposure. Regardless of how active you are, sunscreen should be re-applied every 3 hours. For children under 6 months of age, it is important to keep them in shade and protected with hats and clothing. It is not recommended to use sunscreen on infants under the age of 6 months. Most sun protection products work by absorbing, reflecting, or scattering sunlight. Even though sunscreen contains chemicals, the US Food and Drug Administration has shown that these chemicals do not get absorbed by the body. There are however, some people who are allergic to some sunscreen ingredients. If you develop a reaction to sunscreen, contact your physician for recommendations for an alternative. Sunscreens are assigned a sun protection factor (SPF) number that rates their effectiveness in blocking UV rays. The highest SPF that will be available is 50+. Use a sunscreen with at least an SPF 30 that is labeled as broad spectrum!

Reapply Sunscreen Sunscreen wears off. Re apply if there is sun exposure exceeding three hours as well as after swimming or activities that cause sweating.

Do not Use Outdated Sunscreen Sunscreen without an expiration date has a shelf life of no more than three years, but its shelf life is shorter if it has been exposed to warm temperatures.

Use Cosmetics with a High Sun Protection Factor Some make-up, lip sticks and lip balms contain some of the same chemicals used in sunscreens. If they do not have at least an SPF 15 then do not use them by themselves; you need to apply sunscreen.

Avoid Indoor Tanning Using a tanning bed, booth, or sunlamp to get tan is called "indoor tanning". Indoor tanning has been linked with skin cancers including melanoma (the deadliest type of skin cancer), squamous cell carcinoma, and cancers of the eye (ocular melanoma).

Source: National Institutes of Health: National Cancer Institute

For further information visit www.strang.org



May is National Skin Cancer Awareness Month



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