Strang Cancer Prevention Institute

Dedicated to promoting cure by early detection and research to prevent cancer since 1933

Skin Cancer Screening and Prevention

Risk Factors

- Individuals with Fitzpatrick skin phototype I – III should be screened routinely. People with darker skin have a lower incident of skin cancer. However, people of color have a lower survival compared to whites when melanoma occurs, perhaps due to later diagnosis. Most melanomas in people of color occur on the palms of the hands, soles of the feet, under a nail (subungual) or in the nail areas. Mucosal melanoma, occurring in the moist linings of areas such as the sinuses, nasal passages, oral cavity, vagina or anus, make up a larger proportion of melanomas in in people of color compared to whites. So, people with Fitzpatrick skin phototype IV – VI should also be screened.
    - Fitzpatrick skin classifications:
        - I: Pale white skin, blue/hazel eyes, blond/red hair
            - Always burns, does not tan
        - II: Fair skin, blue eyes
            - Burns easily, tans poorly
        - III: Darker white skin
            - Tans after initial burn
        - IV: Light brown skin
            - Burns minimally, tans easily
        - V: Brown skin
            - Rarely burns, tans darkly easily
        - VI: Dark brown or black skin
            - Never burns, always tans darkly
- Family history of melanoma
- Familial atypical multiple mole melanoma (FAMMM) syndrome CDKN2A gene mutation.
- A personal history of skin cancer
- A personal history of dysplastic or abnormal moles
- Exposure to the sun through work and play
- A history of blistering sunburns, especially at a young age.
- A history of indoor tanning
- BRCA 2 gene mutation carriers
- History of breast or pancreatic cancer
- More than 50 moles
- New pigmented streaks in the fingernails or toenails
- History of a spot that bleeds, comes and goes or does not heal after 3 weeks

Screening Guidelines

Skin exams are used to screen for skin cancer – specifically basal cell, squamous cell and melanoma – and should be performed by a board certified dermatologist.

Regular exams of the skin by both the doctor and patient increase the chance of finding skin cancer at an early stage. If detected and treated early, skin cancer is curable.

If an area of skin is concerning or looks abnormal, the physician will perform a biopsy for diagnosis. The area is numbed with local anesthetic while the patient is awake and the specimen is sent to a pathologist specializing in skin for evaluation.

2. **Cancer Prevention**

- Shade – avoid being in the sun during peak UV hours (10 – 3 pm)
- Clothing – tight weave cotton clothing is more protective
    - Loose cotton pants or long sleeve shirts are best
    - There are many companies now marketing clothing with "ultraviolet protection factor (UPF) ratings, analogous to SPF, that quantify the protection of the garments. UPF of 50 or more is commonly recommended. These vendors are easily found on the internet.
- Hats – make sure the hat has a broad brim to cover the tops of the ears
- Sunglasses – UVA & UVB protection. These may help protect against cataract formation.
- Sunscreen – use at least an SPF of 30. Apply liberally and re-apply every 2 hours
- Avoid indoor tanning

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

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

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

As mentioned above, special fabrics are available with high UPF values from several vendors.

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

Sunglasses

Sunglasses 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

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 2 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

How sunscreen works. Most sun protection products work by absorbing, reflecting, or scattering sunlight. 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.

Recently, it has become apparent that some sunscreen chemicals can be found in blood in very small quantities after application to the skin. Some of these chemicals have hormone disrupting effects. The significance of this has been debated, although there is a history of long use of these agents. If there is concern about this, sunscreens using titanium dioxide and/or zinc oxide as ultraviolet radiation blocking agents can be used as these are not absorbed.

SPF. Sunscreens are assigned a sun protection factor (SPF) number that rates their effectiveness in blocking UV rays. The highest SPF that is available is 50+. Use a sunscreen with at least SPF 30 that is labeled as broad spectrum

Reapplication. Sunscreen wears off. Put it on again if there is sun exposure exceeding three hours, and after swimming or activities that cause sweating

Expiration date. Check the sunscreen's expiration date. 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 high temperatures

Cosmetics. Some make-up and lip balms contain some of the same chemicals used in sunscreens. If they do not have at least
SPF 15, do not use them by themselves

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)

Strang Cancer Prevention Institute has developed and updates guidelines for cancer screening and best practices for cancer prevention using guidelines of the National Cancer Institute (NCI), the National Consortium of Cancer Centers Network (NCCCN) and the American Cancer Society (ACS). Strang is synonymous with cancer screening and prevention. Strang was the first medical facility to introduce the Pap test into clinical practice which has saved millions of women's lives worldwide. Strang was opened by first lady Eleanor Roosevelt in 1933.