TerranearPMC Safety Share

Week of July 5, 2016– Skin Cancer and the Sun

Skin cancer is the most common of all human cancers, with 1 million people in the U.S. diagnosed each year with some type of the disease. Cancer occurs when normal cells undergo a transformation and grow and multiply without normal controls. Here are the cancer basics:

- As the cells multiply, they form a mass called a tumor.
- Tumors are cancerous only if they are malignant. This means that they encroach on and invade neighboring tissues (especially lymph nodes) because of their uncontrolled growth.
- Tumors may also travel to remote organs via the bloodstream. This process of invading and spreading to other organs is called metastasis.
- Tumors overwhelm surrounding tissues by invading their space and taking the oxygen and nutrients they need to survive and function.

There are three major types of skin cancers: basal cell carcinoma (BCC), squamous cell carcinoma (SCC), and melanoma. The first two skin cancers are grouped together as non-melanoma skin cancers and make up the vast majority of skin cancers. While malignant, they are unlikely to spread to other parts of the body. They may be locally disfiguring if not treated early.

Carcinoma is a type of cancer that starts in cells that make up the skin or the tissue lining organs, such as the liver or kidneys. Like other types of cancer, carcinomas are abnormal cells that divide without control. While they are able to spread to other parts of the body, this doesn't always happen. "Carcinoma in situ" stays in the cells where it started.

Not all cancers are carcinoma. Other types of cancer that aren't carcinomas invade the body in different ways. Those cancers begin in other types of tissue, such as bone, blood vessels, immune system cells, brain and spinal cord.

Squamous cell carcinoma (squamous is a word derived from Latin meaning "covered with scales") is a common form of skin cancer that develops in the thin, flat squamous cells that make up the outer layer of the skin. Squamous cell carcinoma of the skin is usually not life-threatening, though it can be aggressive in some cases.

The other, non-melanoma carcinoma, basal cell carcinoma, is a cancer that grows on parts of your skin that receives a lot of sun ("Basal" originates from the Greek, meaning base or foundation). This cancer is unlikely to spread from your skin to other parts of your body, but it can move nearby into bone or other tissue under your skin. It is the least risky type of skin cancer. As long as you catch it early, you can be cured. The tumors start off as small shiny bumps, usually on your nose or other parts of your face. But you can get them on any part of your body, including your trunk, legs, and arms. If you've got fair skin, you're more likely to get this skin cancer. Basal cell carcinoma usually grows very slowly and often doesn't show up for many years after intense or long-term exposure to the sun. You can get it at a younger age if you're exposed to a lot of sun or use tanning beds.

A small but significant number of skin cancers are *malignan*t melanomas. Malignant melanoma is a highly aggressive cancer that tends to spread to other parts of the body. These cancers may be fatal if not treated early.

Like many cancers, skin cancers start as precancerous lesions. These precancerous lesions are changes in skin that are not cancer, but could become cancer over time. Medical professionals often refer to these changes as *dysplasia*. Some specific dysplastic changes that occur in skin are as follows:

- Actinic keratosis is an area of red or brown, scaly, rough skin, which can develop into squamous cell carcinoma.
- A nevus is a mole, and abnormal moles are called dysplastic nevi. These can potentially develop into melanoma over time.
- Moles are simply growths on the skin that rarely develop into cancer. Most people have 10 to 30 moles on their body that can be identified as flat or raised, smooth on the surface, round or oval in shape, pink, tan, brown or skin-colored, and no larger than a quarter-inch across. If a mole on your body looks different from the others, consult with a physician.
- Dysplastic nevi, or abnormal moles, are not cancer, but they can become cancer. People sometimes have as many as 100 or more dysplastic nevi, which are usually irregular in shape, with notched or fading borders. Some may be flat or raised, and the surface may be smooth or rough ("pebbly"). They are often large, at a quarter-inch across or larger, and are typically of mixed color, including pink, red, tan, and brown.

Recent studies show the number of skin cancer cases in the U.S. growing at an alarming rate. Fortunately, increased awareness on the part of Americans and their health care providers has resulted in earlier diagnosis and improved outcomes.

There is no secret in what we can do to reduce the risk of skin cancer. Since its inception in 1979, The Skin Cancer Foundation has always recommended using a sunscreen with a sun protection factor (SPF) of 15 or higher as one important part of a complete sun protection regimen. Nowadays, it is recommended that a sunscreen with a SPF of 30 be applied. However, sunscreen alone is not enough. Below is a list of steps to take to help prevent skin cancer due to sun exposure.

- Stay out of the sun between 10 AM and 4 PM.
- Never “burn” your skin (i.e. over exposure).
- Avoid tanning and UV tanning beds.
- Cover up with clothing, including a broad-brimmed hat and UV-blocking sunglasses.
- Use a broad spectrum (designed to protect against UVA and UVB rays) sunscreen with an SPF of 30 every day. Many sunscreen are now water-resistant so it will not wash off when playing in a pool or lake.
- Apply 1 ounce (2 tablespoons) of sunscreen to your entire body 30 minutes before going outside. Reapply every two hours or immediately after swimming or excessive sweating.
- Keep newborns out of the sun. Sunscreens should be used on babies over the age of six months.
- Examine your skin head-to-toe every month.
- See your physician every year for a professional skin exam.

Life begins at the end of your comfort zone! Anonymous