Types of Cancer

Skin Cancer

What is skin cancer?

Cancer develops when cells grow out of control. Skin cancer is the most frequently diagnosed type of cancer. Basal and squamous cell skin cancers are most common and are usually treatable. Melanoma is less common but more likely to spread and become life-threatening. Other cancers that affect the skin include Merkel cell carcinoma, some types of lymphoma and Kaposi sarcoma. (See separate Basics pages about melanoma, lymphoma and Kaposi sarcoma.)

Basal and squamous cell skin cancers typically develop in areas exposed to the sun, but they also can occur elsewhere. Squamous cells make up the upper layer of the skin, or epidermis, while basal cells are found further down. As cancer progresses, it may involve the underlying deep layer of the skin, or dermis.

Melanoma affects melanocytes, or pigment-producing cells in the skin. Merkel cell carcinoma involves neuroendocrine cells in the skin. Kaposi sarcoma, a cancer of the lining of blood and lymph vessels, can occur anywhere in the body but often appears as skin lesions.

Who gets skin cancer?

Estimates suggest that more than 3 million people are diagnosed with skin cancer each year in the United States, according to the American Cancer Society. About 80 percent of these cases are basal cell cancers. Basal and squamous cell skin cancers can usually be successfully treated and account for only about 2,000 deaths annually.

Melanoma is less common. About 87,000 people get melanoma, and about 9,700 people die from it annually. Merkel cell carcinoma, lymphomas of the skin and Kaposi sarcoma are rare in the United States.

What are the risk factors for skin cancer?

The primary risk factor for skin cancer is exposure to ultraviolet (UV) radiation from the sun or from tanning beds. People who spend a lot of time outdoors and individuals with pale skin who sunburn easily are at greatest risk. But people with dark skin can also develop skin cancer. Avoiding the sun, wearing clothes that cover the skin and using sunscreen can reduce the risk of developing skin cancer.

Smoking is a risk factor for squamous cell skin cancer, especially on the lips. Individuals with a weakened immune system, such as people with HIV and organ transplant recipients, have a higher risk of skin cancer. Certain types of human papillomavirus (HPV) appear to trigger some skin cancers.

What are the symptoms of skin cancer?

Unusual changes in the skin may be a sign of skin cancer. Signs of squamous and basal cell cancer may include:

- Pale or yellow flat patches that resemble scars
- Red, scaly or itchy patches
- Shiny pink or red or pearly bumps
- Growths with raised edges and a depression in the center
- Open sores with oozing or crusted areas
- Sores that don’t heal or keeping coming back
- Wart-like growths

Some squamous and basal cell cancers are flat and look similar to normal skin. New or changing moles may be a sign of melanoma and should be reported to your doctor.

How is skin cancer diagnosed?

Early detection and treatment of skin cancer—especially melanoma—leads to the best outcomes. Regular self-examination of the skin can find abnormalities that might be cancer. Be sure to include your scalp, ears and back. Report new or unusual spots or sores to your health care provider—a doctor or nurse can often distinguish between those that are benign or harmless and those that are malignant or cancerous.

The process of diagnosis starts with a physical exam and medical history, including family history and how long symptoms have been present. Your doctor will examine suspicious areas of the skin and may feel for enlarged lymph nodes. You may be referred to a dermatologist, or skin specialist, for further examination. A sample of abnormal tissue (a biopsy) may be removed to examine in a laboratory; small abnormalities may be removed completely.

Basal cell cancers usually do not spread beyond the skin. Squamous cell cancers are more likely to spread, but this is still uncommon. Melanoma is most likely to spread to other parts of the body, a process known as metastasis. Imaging scans may be done to see how much the cancer has progressed.

How is skin cancer treated?

Treatment for skin cancer depends on what type of cancer it is, how advanced it is when it is

detected and whether it has spread to other parts of the body.

Surgery: Small and localized skin cancers can often be surgically removed; this is known as resection. Depending on how large and deep the tumor is, it may be possible to remove it in a doctor's office.

Local therapy: Areas of abnormal skin may be destroyed using a variety of methods including cryotherapy (freezing), photodynamic therapy (a drug activated by lasers) or topical medications.

Radiation: Radiation may be used to kill cancer cells that remain after surgery. It may also be used for tumors that are hard to remove or for people who should avoid surgery.

Chemotherapy: Traditional cytotoxic chemotherapy works by killing fast-growing cells, including cancer cells. It can also destroy rapidly dividing healthy cells, such as those in the gut or hair follicles, leading to side effects like nausea and hair loss. Basal cell skin cancer seldom requires systemic chemotherapy, but it may be used to treat squamous cell cancers that have spread.

Targeted therapy: Targeted drugs work against cancers with specific characteristics. For example, they may interfere with signaling pathways that regulate cell growth. Rare cases of advanced basal cell cancer may be treated with a drug that targets the so-called hedgehog pathway.

Immunotherapy: Medications known as immune response modifiers are sometimes applied to skin cancers to boost the immune system's response to them. The newest types of treatment that help the immune system fight cancer, such as checkpoint inhibitors, are generally not used for skin cancers except melanoma.

For more information on skin cancers, see the following resources:

American Cancer Society: Basal and Squamous Cell Skin Cancer

National Cancer Institute: Skin Cancer

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