



Doctor, Please tell me about Skin Cancer

The skin is the largest organ in our body. It provides protection against heat, cold, light, and infection. The skin is made up of two major layers (epidermis and dermis) as well as various types of cells (see figure). The top (or outer) layer of the skin—the epidermis—is composed of three types of cells: flat, scaly cells on the surface called squamous cells; round cells called basal cells; and melanocytes, cells that provide skin its pigment or color and protect against skin damage. The inner layer of the skin—the dermis—is the layer that contains the nerves, blood vessels, and sweat glands.

What Is Skin Cancer?

Skin cancer is a disease in which cancer (malignant) cells are found in the outer layers of your skin. There are several types of cancer that originate in the skin. The most common types are basal cell carcinoma (70 percent of all skin cancers) and squamous cell carcinoma (20 percent). These types are classified as nonmelanoma skin cancer.

Melanoma (5 percent of all skin cancer) is the third major type of skin cancer. It is less common than basal cell or squamous cell skin cancer, but potentially much more serious. Other types of skin cancer are rare.

Basal Cell Carcinoma

Basal cell carcinoma (figure) is the most common type of skin cancer. It typically appears as a small raised bump that has a pearly appearance. They are most commonly seen on areas of the skin that have received excessive sun exposure. These cancers may spread to the skin around the cancer but rarely spread to other parts of the body.

Squamous Cell Carcinoma

Squamous cell carcinoma (figure) is also seen on the areas of the body that have been exposed to excessive sun (nose, lower lip, hands, and forehead). Often this cancer appears as a firm red bump or ulceration of the skin that does not heal. Squamous cell carcinomas can spread to lymph nodes in the area.

Melanoma

Melanoma is a skin cancer (malignancy) that arises from the melanocytes in the skin. These cancers typically arise as pigmented (colored) lesions in the skin with an irregular shape, irregular border, and multiple colors (figure). It is the most harmful of all the skin cancers because it can spread to other sites in the body. Fortunately, most melanomas have a very high cure rate when identified and treated early.

Who Gets Skin Cancer?

Skin cancer is a disease that has shown a steady increase over the last 20 years. Fortunately, with early diagnosis and treatment it remains a very curable disease. A variety of factors have been identified which place a person at a higher risk to develop skin cancer (see “Am I at risk?”



How Is Skin Cancer Diagnosed?

The most important first step is early diagnosis. The vast majority of skin cancers can be cured if diagnosed and treated early. Aside from protecting your skin from sun damage, it is important to recognize the early signs of skin cancer:

- Skin sores that do not heal
- Bumps or nodules in the skin that are enlarging
- Changes in existing moles (size, texture, color)

If you notice any of the factors listed above see your doctor right away. If you have a spot or lump on your skin, your doctor may remove the growth and examine the tissue under the microscope. This is called a biopsy. A biopsy can usually be done in the doctor's office after numbing the skin with a local anesthetic. Examination of the biopsy under the microscope will tell the doctor if the skin lesion is a cancer (malignancy).

How Is Skin Cancer Treated?

There are varieties of treatments available (including surgery, radiation therapy, and chemotherapy) to treat skin cancer. Treatment for skin cancer depends on the type and size of cancer, your age, and your overall health.

Surgery is the most common form of treatment. This generally consists of an office or outpatient procedure to excise the lesion and check edges to make sure all the cancer was removed. In many cases, the site is then repaired with simple stitches (primary closure). In larger skin cancers, your doctor may take some skin from another body site to cover the wound and promote healing. This is termed skin grafting. In more advanced cases of skin cancer radiation therapy or chemotherapy (drugs that kill cancer cells) may be used in conjunction with surgery to improve cure rates. Your overall treatment will be individualized based on the type and size of skin cancer, your age, and your overall health.

How Can I Lower My Risk?

The single most important thing you can do to lower your risk of skin cancer is to avoid direct sun exposure. Sunlight produces ultraviolet (UV) radiation that can directly damage the cells (DNA) of our skin. People who work outdoors (farmers, construction, boating, outdoor sports) are at the highest risk of developing a skin cancer. The sun's rays are the most powerful between 10 am and 2 pm, so you must be particularly careful during those hours.

If you must be out during the day, wear clothing that covers as much of your skin as possible including a wide-brimmed hat to block the sun from your face, scalp, neck, and ears. In addition to protective clothing, the use of a sunscreen can reflect light away from the skin and provide protection against UV radiation. When selecting a sunscreen, choose one with a Sun Protection Factor (SPF) of 15 or more. Sunscreen products do not completely block the damaging rays but they do allow you to be in the sun longer without getting sunburn.



In addition to being sun-smart, it is critical to recognize early signs of trouble on your skin. The best time to do self-examination is after a shower in front of a full-length mirror. Note any moles, birthmarks, and blemishes. Be on the alert for sores that do not heal or new nodules on the skin. Any mole that changes in size, color, or texture should be carefully examined. If you notice anything new or unusual, see your physician right away. Catching skin cancer early can save your life.

Am I at risk?

People with any of the factors listed below have a higher risk of developing skin cancer and should be particularly careful of sun exposure.

- Long term sun exposure
- Fair skin (typically blonde or red hair with freckles)
- Place of residence (increased risk in more Southern climates)
- Presence of moles particularly if you notice irregular edges, uneven coloring, and increase size >6 mm
- Family history of skin cancer
- Use of indoor tanning devices
- Severe sun burns as child
- Non-healing ulcers or nodules in the skin