

Skin Cancer

What Is Skin Cancer?

Basal cell carcinoma begins in the basal cell layer of the skin. Squamous cell carcinoma begins in the squamous layer of the skin. Melanoma begins in the melanocytes, which are the cells that make melanin, the pigment that gives skin its color.

Skin cancer is the most common form of cancer in the United States. The two most common types of skin cancer—basal cell and squamous cell carcinomas—are highly curable, but can be disfiguring and costly. Melanoma, the third most common skin cancer, is more dangerous and causes the most deaths. The majority of these three types of skin cancer are caused by exposure to UV light.

Ultraviolet Light

UV rays are an invisible kind of radiation that comes from the sun, tanning beds, and sunlamps. UV rays can penetrate and change skin cells.

The three types of UV rays are ultraviolet A (UVA), ultraviolet B (UVB), and ultraviolet C (UVC)

- UVA is the most common kind of sunlight at the earth's surface, and reaches beyond the top layer of human skin. Scientists believe that UVA rays can damage connective tissue and increase a person's risk of skin cancer.
- Most UVB rays are absorbed by the ozone layer, so they are less common at the earth's surface than UVA rays. UVB rays, which help produce vitamin D in the skin, don't reach as far into the skin as UVA rays, but they still can be damaging.
- UVC rays are very dangerous, but they are absorbed by the ozone layer and do not reach the ground.

In addition to sunburn, too much exposure to UV rays can change skin texture, cause the skin to age prematurely, and can lead to skin cancer. UV rays also have been linked to eye conditions such as cataracts.

The National Weather Service and the Environmental Protection Agency developed the UV Index to forecast the risk of overexposure to UV rays. It lets you know how much caution you should take when working, playing, or exercising outdoors.

The UV Index predicts exposure levels on a 1–15 scale; higher levels indicate a higher risk of overexposure. Calculated on a next-day basis for dozens of cities across the United States, the UV Index takes into account clouds and other local conditions that affect the amount of UV rays reaching the ground.

What Are the Risk Factors for Skin Cancer?

People with certain risk factors are more likely than others to develop skin cancer. Risk factors vary for different types of skin cancer, but some general risk factors are having

- A lighter natural skin color.
- Family history of skin cancer.
- A personal history of skin cancer.
- Exposure to the sun through work and play.
- A history of sunburns, especially early in life.
- A history of indoor tanning.
- Skin that burns, freckles, reddens easily, or becomes painful in the sun.
- Blue or green eyes.
- Blond or red hair.
- Certain types and a large number of moles.

Tanning and Burning

Ultraviolet (UV) rays come from the sun or from indoor tanning (using a tanning bed, booth, or sunlamp to get tan). When UV rays reach the skin's inner layer, the skin makes more melanin. *Melanin* is the pigment that colors the skin. It moves toward the outer layers of the skin and becomes visible as a tan.

A tan does not indicate good health. A tan is a response to injury, because skin cells signal that they have been hurt by UV rays by producing more pigment.

People burn or tan depending on their skin type, the time of year, and how long they are exposed to UV rays. The six types of skin, based on how likely it is to tan or burn, are

- I. Always burns, never tans, sensitive to UV exposure.
- II. Burns easily, tans minimally.
- III. Burns moderately, tans gradually to light brown.

- IV. Burns minimally, always tans well to moderately brown.
- V. Rarely burns, tans profusely to dark.
- VI. Never burns, deeply pigmented, least sensitive.

What Are the Symptoms of Skin Cancer?

A change in your skin is the most common sign of skin cancer. This could be a new growth, a sore that doesn't heal, or a change in a mole. Not all skin cancers look the same.

A simple way to remember the signs of melanoma is to remember the A-B-C-D-Es of melanoma

- "A" stands for asymmetrical. Does the mole or spot have an irregular shape with two parts that look very different?
- "B" stands for border. Is the border irregular or jagged?
- "C" is for color. Is the color uneven?
- "D" is for diameter. Is the mole or spot larger than the size of a pea?
- "E" is for evolving. Has the mole or spot changed during the past few weeks or months?

Talk to your doctor if you notice changes in your skin such as a new growth, a sore that doesn't heal, a change in an old growth, or any of the A-B-C-D-Es of melanoma.

What Screening Tests Are There?

The U.S. Preventive Services Task Force (USPSTF) has concluded there is not enough evidence to recommend for or against routine screening (total body examination by a doctor) to find skin cancers early. The USPSTF recommends that doctors

- Be aware that fair-skinned men and women aged 65 and older, and people with atypical moles or more than 50 moles, are at greater risk for melanoma.
- Look for skin abnormalities when performing physical examinations for other reasons.

Although everyone's skin can be damaged by UV exposure, people with skin types I and II are at the highest risk.