



## To Skin Cancer Prevention

Each year, about a million people in the United States learn that they have skin cancer. Cancer is a group of more than 100 diseases. Although each type of cancer differs from the others in many ways, every cancer is a disease of some of the body's cells.

Healthy cells that make up the body's tissues grow, divide, and replace themselves in an orderly way. This process keeps the body in good repair. Sometimes, however, normal cells lose their ability to limit and direct their growth. They divide too rapidly and grow without any order, too much tissue is produced, and tumors begin to form. Tumors can be benign or malignant.

- **Benign tumors** are not cancer. They do not spread to other parts of the body and are seldom a threat to life. Often, benign tumors can be removed by surgery, and they are not likely to return.
- **Malignant tumors** are cancer. They can invade and destroy nearby healthy tissues and organs. Cancer cells also can spread, or metastasize, to other parts of the body and form new tumors.

### Types of Skin Cancer

The two most common kinds of skin cancer are basal cell carcinoma and squamous cell carcinoma. Basal cell carcinoma is cancer that begins in the cells that cover or line an organ. Basal cell carcinoma accounts for more than 90 percent of all skin cancers in the United States. It is a slow-growing cancer that seldom spreads to other parts of the body. Squamous cell carcinoma also rarely spreads, but it does so more often than basal cell carcinoma. However, it is important that skin cancers be found and treated early because they can invade and destroy nearby tissue. Basal cell carcinoma and squamous cell carcinoma are sometimes called nonmelanoma skin cancer. Another type of cancer that occurs in the skin is melanoma, which begins in the melanocytes.

### Cause and Prevention

Skin cancer is the most common type of cancer in the United States. According to current estimates, 40 to 50 percent of Americans who live to age 65 will have skin cancer at least once. Although anyone can get skin cancer, the risk is greatest for people who have fair skin that freckles easily - often those with red or blond hair and blue or light-colored eyes. Ultraviolet (UV) radiation from the sun is the main cause of skin cancer. UV radiation is invisible rays that are part of the energy that comes from the sun. UV radiation also comes from sun lamps and tanning beds. UV radiation can damage the skin and cause melanoma and other types of skin cancer. UV radiation that reaches the Earth's surface is made up of two types of rays, called

UVA and UVB rays. UVB rays are more likely than UVA rays to cause sunburn, but UVA rays pass deeper into the skin. Scientists have long thought that UVB radiation can cause melanoma and other types of skin cancer. They now think that UVA radiation also may add to skin damage that can lead to skin cancer and cause premature aging. For this reason, skin specialists recommend that people use sunscreens that reflect, absorb, or scatter both kinds of UV radiation.

The risk of developing skin cancer is affected by where a person lives. People who live in areas that get high levels of UV radiation from the sun are more likely to get skin cancer. In the United States, for example, skin cancer is more common in Texas than it is in Minnesota, where the sun is not as strong. Worldwide, the highest rates of skin cancer are found in South Africa and Australia, areas that receive high amounts of UV radiation.

In addition, skin cancer is related to lifetime exposure to UV radiation. Most skin cancers appear after age 50, but the sun's damaging effects begin at an early age. Therefore, protection should start in childhood to prevent skin cancer later in life.

Whenever possible, people should avoid exposure to the midday sun (from 10 a.m. to 2 p.m. standard time, or from 11 a.m. to 3 p.m. daylight savings time). Keep in mind that protective clothing, such as sun hats and long sleeves, can block out the sun's harmful rays. Also, lotions that contain sunscreens can protect the skin. Sunscreens are rated in strength according to a sun protection factor (SPF), which ranges from 2 to 30 or higher. Those rated 15 to 30 block most of the sun's harmful rays.

## **Symptoms**

The most common warning sign of skin cancer is a change on the skin, especially a new growth or a sore that doesn't heal. Skin cancers don't all look the same. For example, the cancer may start as a small, smooth, shiny, pale, or waxy lump. Or it can appear as a firm red lump. Sometimes, the lump bleeds or develops a crust. Skin cancer can also start as a flat, red spot that is rough, dry, or scaly.

Both basal and squamous cell cancers are found mainly on areas of the skin that are exposed to the sun - the head, face, neck, hands, and arms. However, skin cancer can occur anywhere.

Actinic keratosis, which appears as rough, red or brown scaly patches on the skin, is known as a precancerous condition because it sometimes develops into squamous cell cancer. Like skin cancer, it usually appears on sun-exposed areas but can be found elsewhere.

Changes in the skin are not sure signs of cancer; however, it is important to see a doctor if any symptom lasts longer than 2 weeks. Don't wait for the area to hurt - skin cancers seldom cause pain.

## **Detection**

The cure rate for skin cancer could be 100 percent if all skin cancers were brought to a doctor's attention before they had a chance to spread. Therefore, people should check themselves

regularly for new growths or other changes in the skin. Any new, colored growths or any changes in growths that are already present should be reported to the doctor without delay. (See the How to do a Skin Self-Exam) section for a simple guide on how to do a skin self-exam.)

Doctors should also look at the skin during routine physical exams. People who have already had skin cancer should be sure to have regular exams so that the doctor can check the skin - both the treated areas and other places where cancer may develop.

## **Diagnosis**

Basal cell carcinoma and squamous cell carcinoma are generally diagnosed and treated in the same way. When an area of skin does not look normal, the doctor may remove all or part of the growth. This is called a biopsy. To check for cancer cells, the tissue is examined under a microscope by a pathologist or a dermatologist. A biopsy is the only sure way to tell if the problem is cancer.

Doctors generally divide skin cancer into two stages: local (affecting only the skin) or metastatic (spreading beyond the skin). Because skin cancer rarely spreads, a biopsy often is the only test needed to determine the stage. In cases where the growth is very large or has been present for a long time, the doctor will carefully check the lymph nodes in the area. In addition, the patient may need to have additional tests, such as special x-rays, to find out whether the cancer has spread to other parts of the body. Knowing the stage of a skin cancer helps the doctor plan the best treatment.

## **Treatment Planning**

In treating skin cancer, the doctor's main goal is to remove or destroy the cancer completely with as small a scar as possible. To plan the best treatment for each patient, the doctor considers the location and size of the cancer, the risk of scarring, and the person's age, general health, and medical history.

It is sometimes helpful to have the advice of more than one doctor before starting treatment. It may take a week or two to arrange for a second opinion, but this short delay will not reduce the chance that treatment will be successful.

For more information see UA Extension Factsheet FSHEL 15 Skin Cancer

## How To Do a Skin Self-Exam

You can improve your chances of finding skin cancer promptly by performing a simple skin self-exam regularly.

The best time to do this self-exam is after a shower or bath. You should check your skin in a well-lighted room using a full-length mirror and a hand-held mirror. It's best to begin by learning where your birthmarks, moles, and blemishes are and what they usually look like. Check for anything new - a change in the size, texture, or color of a mole, or a sore that does not heal.

Check **all** areas, including the back, the scalp, between the buttocks, and the genital area.

1. Look at the front and back of your body in the mirror, then raise your arms and look at the left and right sides.
2. Bend your elbows and look carefully at your palms; forearms, including the undersides; and the upper arms.
3. Examine the back and front of your legs. Also look between your buttocks and around your genital area.
4. Sit and closely examine your feet, including the soles and the spaces between the toes.
5. Look at your face, neck, and scalp. You may want to use a comb or a blow dryer to move hair so that you can see better.

By checking your skin regularly, you will become familiar with what is normal. If you find anything unusual, see your doctor right away. Remember, the earlier skin cancer is found, the better the chance for cure.

Source: National Cancer Institute



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