

*Each year, about a million people in the United States learn that they have skin cancer.*

Research has led to better methods of diagnosing and treating this disease. It is encouraging to know that skin cancer is now almost 100 percent curable if found early and treated promptly.

## Types of Skin Cancer

The two most common kinds of skin cancer are basal cell carcinoma and squamous cell carcinoma. (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.

Melanoma occurs when melanocytes become malignant. The disease also may be called cutaneous melanoma or malignant melanoma. (Another type of melanoma, ocular melanoma, develops in the eye; it is not discussed in this booklet.)

Melanoma can occur on any skin surface. In men, it is often found on the trunk (the area from the shoulders to the hips) or the head and neck. In women, melanoma often develops on the lower legs or the trunk. Melanoma is rare in black people and others with dark skin. When it does develop in dark-

skinned people, it tends to occur under the fingernails or toenails or on the palms or soles. Melanoma affects people of all age groups, but the chance of developing this disease increases with age.

## Signs and Symptoms of Melanoma

People who have had melanoma have a high risk of developing a new melanoma. Also, those who have relatives who have had this disease have a higher-than-average risk. It is especially important for these people to check their skin regularly and to have frequent medical exams. Some people have certain abnormal-looking moles, called dysplastic nevi or atypical moles, that may be more likely than normal moles to develop into melanoma. Most people with dysplastic nevi have just a few of these abnormal moles; others have many. They and their doctor should examine these moles regularly for changes.

Dysplastic nevi often look very much like melanoma. Doctors with special training in skin diseases are in the best position to decide whether an abnormal-looking mole should be closely watched or should be removed and checked for cancer.

In some families, many members have a large number of dysplastic nevi, and some have had melanoma. Members of these families have a very high risk for melanoma. It is important for them to have frequent checkups (every 3 to 6 months) so that any problems can be detected early. The doctor may take pictures of a person's skin to help in detecting any changes that occur.

## Causes, Risk Factors, and Prevention

Doctors can seldom explain why one person gets melanoma and another doesn't. However, we do know that this disease is not contagious; no one can "catch" cancer from another person.

The number of people who develop melanoma is increasing. Researchers are trying to learn what may cause it. They believe that the number of melanomas may be increasing mainly because people are spending more time in the sun. They know that ultraviolet (UV) radiation from the sun causes skin damage that can lead to melanoma. Artificial sources of UV radiation, such as sunlamps and tanning booths, also can cause skin damage.

Scientists have observed that certain factors increase a person's risk of developing melanoma. Having two or more close relatives who have had this disease is a risk factor because melanoma sometimes runs in families. In fact, about 10 percent of all patients with this disease have family members who also have had melanoma. When melanoma runs in a family, the family members should be checked regularly by a doctor.

Having dysplastic nevi (atypical moles) is another risk factor for melanoma. Dysplastic nevi are more likely than ordinary moles to become cancerous. Many people have only a few of these abnormal moles; the risk of melanoma is greater for people who have a large number of dysplastic nevi. It is highest for people who have a family history of both dysplastic nevi and melanoma.

People who have had one or more severe, blistering sunburns as a child or teenager are at increased risk for melanoma. Because of this, doctors advise protecting children's skin from the sun, which they hope will help prevent melanoma later in life.

Melanoma occurs more frequently in people who have fair skin that burns or freckles easily (these people also usually have red or blond hair and blue eyes) than in people with dark skin. White people get melanoma far more often than do black people, probably because light skin is more easily damaged by the sun. In addition, this disease is more common in people who live in an area that gets high levels of UV radiation from the sun. In the United States, for example, melanoma is more common in Texas than it is in Minnesota, where the sun is not as strong.

To help prevent melanoma, 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 saving time) whenever possible. Another simple rule is to protect yourself from the sun when your shadow is shorter than you are. Wearing a hat and long sleeves offers protection. Also, lotions or creams that contain sunscreens help prevent sunburn. Doctors believe sunscreen may help prevent melanoma, especially those that block both types of ultraviolet radiation. Sunscreens are rated in strength according to a sun protection factor (SPF), which ranges from 2 to 15 and higher. Those rated 15 or higher give the best protection.

## 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.

## How To Do a Skin Self-Exam

You can improve your chances of finding melanoma easily by performing a simple skin self-exam regularly. If your doctor has taken photos of your skin, you can use these pictures when looking for changes.

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 yourself from head to toe. Don't forget to check all areas of the skin, 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 fingernails, palms, forearms (including the undersides), and upper arms.
3. **Examine** the back, front, and sides of your legs. Also look between your buttocks and around the genital area.
4. **Sit** and closely examine your feet, including the toenails, the soles, and the spaces between the toes.
5. **Look** at your face, neck, ears, and scalp. You may want to use a comb or a blow dryer to move hair so that you can see better. You may also want to have a relative or friend check through your hair, because this is difficult to do yourself.

By checking your skin regularly, you will become familiar with what is normal for you. It may be helpful to record the dates of your skin exams and to write notes about the way your skin looks. If you find anything unusual, see your doctor right away. Remember, the earlier a melanoma is found, the better the chance is for a cure.