

Melanoma Skin Cancer

The National Cancer Institute (<http://www.cancer.gov/>), lists melanoma skin cancer as one of 13 common causes of cancer and provides the following information.

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Understanding Cancer

Cancer begins in cells, the building blocks that make up *tissues*. Tissues make up the organs of the body. Normally, cells grow and divide to form new cells as the body needs them. When cells grow old, they die, and new cells take their place.

Sometimes this orderly process goes wrong. New cells form when the body does not need them, and old cells do not die when they should. These extra cells can form a mass of tissue called a growth or *tumor*.

Not all tumors are cancer. Tumors can be *benign* or *malignant*.

Benign tumors are not cancer:

- Benign tumors are rarely life-threatening.
- Usually, benign tumors can be removed, and they seldom grow back.
- Cells from benign tumors do not spread to tissues around them or to other parts of the body.

Malignant tumors are cancer:

- Malignant tumors generally are more serious than benign tumors. They may be life-threatening.
- Malignant tumors often can be removed, but they can grow back.
- Cells from malignant tumors can invade and damage nearby tissues and organs. Also, cancer cells can break away from a malignant tumor and enter the bloodstream or lymphatic system. That is how cancer cells spread from the original cancer (*primary tumor*) to form new tumors in other organs. The spread of cancer is called *metastasis*.

Melanoma

Melanoma is the most serious type of cancer of the skin. Each year in the United States, more than 53,600 people learn they have melanoma.

In some parts of the world, especially among Western countries, melanoma is becoming more common every year. In the United States, for example, the percentage of people who develop melanoma has more than doubled in the past 30 years.

The National Cancer Institute (NCI) has written the booklet (NIH Publication No. 02-1563) to help people with melanoma and their families and friends better understand this disease. We hope others will read it as well to learn more about melanoma. This booklet discusses risks and prevention, symptoms, diagnosis, treatment, and followup care. It also has information about resources and sources of support to help patients cope with melanoma.

What Is Melanoma?

Melanoma is a type of skin cancer. It begins in *cells* in the skin called *melanocytes*. To understand melanoma, it is helpful to know about the skin and about melanocytes—what they do, how they grow, and what happens when they become cancerous.

Melanoma: Who's at Risk?

No one knows the exact causes of melanoma. Doctors can seldom explain why one person gets melanoma and another does not.

However, research has shown that people with certain *risk factors* are more likely than others to develop melanoma. A risk factor is anything that increases a person's chance of developing a disease. Still, many who do get this disease have no known risk factors.

Studies have found the following risk factors for melanoma:

- ***Dysplastic nevi***: Dysplastic nevi are more likely than ordinary moles to become cancerous. Dysplastic nevi are common, and many people have a few of these abnormal moles. The risk of melanoma is greatest for people who have a large number of dysplastic nevi. The risk is especially high for people with a family history of both dysplastic nevi and melanoma.
- **Many (more than 50) ordinary moles**: Having many moles increases the risk of developing melanoma.
- **Fair skin**: 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.
- **Personal history of melanoma or skin cancer**: People who have been treated for melanoma have a high risk of a second melanoma. Some people develop more than two melanomas. People who had one or more of the common skin cancers (*basal cell carcinoma* or *squamous cell carcinoma*) are at increased risk of melanoma.
- **Family history of melanoma**: Melanoma sometimes runs in families. Having two or more close relatives who have had this disease is a risk factor. About 10 percent of all patients with melanoma have a family member with this disease. When melanoma runs in a family, all family members should be checked regularly by a doctor.
- **Weakened immune system**: People whose immune system is weakened by certain cancers, by drugs given following organ *transplantation*, or by *HIV* are at increased risk of developing melanoma.
- **Severe, blistering sunburns**: People who have had at least one severe, blistering sunburn as a child or teenager are at increased risk of melanoma. Because of this, doctors advise that parents protect children's skin from the sun. Such protection may reduce the risk of melanoma later in life. Sunburns in adulthood are also a risk factor for melanoma.
- **Ultraviolet (UV) radiation**: Experts believe that much of the worldwide increase in melanoma is related to an increase in the amount of time people spend in the sun. This disease is also more common in people who live in areas that get large amounts of UV radiation from the sun. In the United States, for example, melanoma is more common in Texas than in Minnesota, where the sun is not as strong. UV radiation from the sun causes premature aging of the skin and skin damage that can lead to melanoma. Artificial sources of UV radiation, such as sunlamps and tanning booths, also can cause skin damage and increase the risk of melanoma. Doctors encourage people to limit their exposure to natural UV radiation and to avoid artificial sources.

Doctors recommend that people take steps to help prevent and reduce the risk of melanoma caused by UV radiation:

- Avoid exposure to the midday sun (from 10 a.m. to 4 p.m.) whenever possible. When your shadow is shorter than you are, remember to protect yourself from the sun.
- If you must be outside, wear long sleeves, long pants, and a hat with a wide brim.
- Protect yourself from UV radiation that can penetrate light clothing, windshields, and windows.
- Protect yourself from UV radiation reflected by sand, water, snow, and ice.
- Help protect your skin by using a lotion, cream, or gel that contains sunscreen. Many doctors believe sunscreens may help prevent melanoma, especially sunscreens that reflect, absorb, and/or scatter both types of ultraviolet radiation. These sunscreen products will be labeled with “broad-spectrum coverage.” Sunscreens are rated in strength according to a sun protection factor (SPF). The higher the SPF, the more sunburn protection is provided. Sunscreens with an SPF value of 2 to 11 provide minimal protection against sunburns. Sunscreens with an SPF of 12 to 29 provide moderate protection. Those with an SPF of 30 or higher provide the most protection against sunburn.
- Wear sunglasses that have UV-absorbing lenses. The label should specify that the lenses block at least 99 percent of UVA and UVB radiation. Sunglasses can protect both the eyes and the skin around the eyes.

People who are concerned about developing melanoma should talk with their doctor about the disease, the symptoms to watch for, and an appropriate schedule for checkups. The doctor's advice will be based on the person's personal and family history, medical history, and other risk factors.

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