



Malignant melanoma

Malignant melanoma is a type of skin cancer. It is the leading cause of death from skin disease. Unlike most other types of skin cancer, malignant melanoma can *metastasize* (spread) through the lymph system and the bloodstream. Therefore, it is very important that this type of skin cancer be detected in the earliest possible stage. More than 90 percent of people with early stage melanoma can be cured. However, the prognosis is not as favorable for people who are diagnosed and treated in more advanced stages. Other factors that influence the outcome of treatment include age and general health.

One of the main risk factors for melanoma, as well as all other types of skin cancer, is exposure to ultraviolet radiation, primarily from sunlight. Therefore, one way to avoid this potentially fatal illness is to protect the skin from sun exposure and any other sources of ultraviolet radiation. People living in sunny climates are at higher risk, as are people with fair skin, freckles, blond or red hair, or blue eyes. However, melanoma can also occur in people with dark skin.

Most people have a few moles, which are *benign* (non-cancerous) growths with pigmented cells in them (melanocytes). People with a lot of moles or unusual moles (*dysplastic nevi*) are at increased risk of developing melanoma, however, since these moles may contain abnormal cells that increase the risk for cancerous changes. These moles are usually larger than normal moles and may have an irregular shape and color. The tendency to have this condition usually runs in families. All abnormal moles should be watched closely for changes. Genetic factors play a role in melanoma, and people with a family history of melanoma are at increased risk for developing this type of cancer.

Note your symptoms

Melanoma starts without causing any symptoms. Therefore, it is extremely important to be aware of the signs, especially in people with known risk factors. Regular screening is very important for early detection. Everyone should examine his or her skin on a regular basis. The hallmark sign of melanoma is a change in size, color or shape of an existing mole. In nearly half of all cases, melanoma first appears as a new mole. Medical professionals advise using an “ABCD” method for identifying the four basic signs of possible melanoma:

- **Asymmetry:** The shape of one-half of a mole does not match the other.
- **Border:** The edges are ragged, notched, or blurred.

- **Color:** The color is uneven and shades of black, brown or tan are present. Areas of white, red, purple or blue may also be seen.
- **Diameter:** There is a change in a mole's size; it may be raised or flat, round or oval.

Other signs include a mole that becomes scaly, oozes, bleeds, or changes in the way it feels. Some moles will become hard, lumpy, itchy, swollen, or tender. New growths (*satellite lesions*) may appear next to a spot that looks suspicious. A spot on the iris (colored portion of the eye) or visual changes may be an early sign of melanoma; your eyes should be examined regularly by your healthcare provider and any time changes are noted. In people with dark skin, moles may appear in less obvious places than they do in people with lighter skin. Black or brown spots or streaks in the fingernails or toenails, or moles on the palms of the hands and soles of the feet may appear, especially among African Americans. There may also be melanomas "hidden" in the mucous membranes of the nose, mouth, urinary tract or genital areas.

What your doctor may do

Your doctor may recommend that a mole (or other unusual skin lesion) be watched closely for changes, or opt to remove it to be safe. If a mole looks suspicious, a skin *biopsy* (tissue sample taken for examination under a microscope) is often performed using the mole tissue for analysis. This can usually be done in the doctor's office under local anesthesia. Biopsy is the only definitive test for melanoma.

Treatment

If a skin biopsy is positive for melanoma, the stage of the cancer will need to be determined, which will dictate the type of treatment necessary. Most people with melanoma will be treated by surgery. Skin grafts may be needed if the amount of tissue removed is extensive. Some scarring will probably occur. Additional cosmetic surgery for repair may be an option.

If the cancer has or may have already spread, *chemotherapy* (medications that kill cancer cells) may be recommended following surgery; this is called *adjuvant* therapy. Traditional chemotherapeutic drugs may be administered, along with *biotherapy*, which employs natural or synthesized substances to boost the body's immune system. Regardless of the regimen you and your doctor select, it is very important to follow your doctor's treatment recommendations.

Radiation therapy is not used as a primary treatment for melanoma but may be used to help control pain if the disease has spread. Radiation therapy is also often used to treat melanoma in the eye (*intraocular melanoma*).

What you can do

As with many cancers, the best approach to melanoma is prevention:

- Limit exposure to the sun-especially if you have fair skin, a history of sunburns, or a history of skin cancer. This is especially important between 10 a.m. and 4 p.m., when the sun's rays are strongest.
- If you cannot avoid sun exposure, protect your skin and eyes by:
 - Always using sunscreen that protects against both UVA and UVB rays. Use it on all skin surfaces that are exposed to sunlight
 - Wearing protective clothing (wide-brimmed hats, long-sleeved shirts, UV protective sunglasses, etc.)
 - Remembering the slogan, "Slip-Slop-Slap: slip on a shirt, slop on sunscreen, slap on a hat."
- Avoid the use of tanning beds, since these provide intense exposure to harmful UV rays and significantly increase your risk of developing skin cancer.
- Some medications can greatly increase the likelihood of sunburn. Check all prescription and over-the-counter (OTC) medications and herbal supplements for precautions about sun exposure.
- Make sure children are adequately protected from the sun. This is especially important because exposure during childhood is a significant risk factor for developing melanoma later in life.

A wide variety of personal and practical concerns need to be addressed by people with cancer, especially metastatic cancer. Find out what resources are available in your area; the nearest office of the American Cancer Society will be listed in your telephone book. An illustrated pamphlet called "What you need to know about skin cancer" is available free of charge from the National Cancer Institute (NCI) by calling 1-800-4-CANCER.

Final note

Melanoma is a dangerous form of skin cancer that can often be survived if it is detected soon enough. While anyone can get it, people with fair skin and light-colored eyes, or who have a high number of moles are at highest risk. Be sure to avoid prolonged exposure to the sun, regardless of your skin type. When sun exposure cannot be avoided, apply a sunscreen with a high SPF.