



# Melanoma

## What is melanoma?

Melanoma is an uncontrolled, abnormal growth of cells that starts in skin cells called melanocytes. It is a type of skin cancer. Melanocytes are pigmented cells in the skin.

The skin has two main layers, the outer epidermis and the inner dermis. Melanocytes are in the lower part of the outer epidermis. These cells make melanin, the pigment that colors the skin, hair, and iris of the eye.

Melanoma is the most deadly form of skin cancer. Early detection is important because melanoma may spread to other parts of the body.

## How does it occur?

Excess sun exposure, especially early in life, is usually the cause of melanoma. Research has shown that people with certain risk factors are more likely than others to develop melanoma. You may have a higher risk for melanoma if:

- You have a fair complexion, naturally red or blonde hair, and light-colored eyes.
- You have had or have a lot of exposure to the sun or artificial sources of UV rays, such as sunlamps or tanning booths.
- You have a history of sunburns, especially one or more severe sunburns before you were 18.
- You have many (more than 50) ordinary moles.
- You have had melanoma or another type of skin cancer.
- You have a family history of melanoma.
- You have a type of moles called dysplastic nevi. These moles are larger than ordinary moles and have irregular and indistinct borders. The moles are often a mixture of colors. They may range from pink to dark brown. Many people have a few of these abnormal moles. Your risk of melanoma is higher if you have a large number of them.
- You have a weakened immune system because of another cancer, drugs used for an organ transplant, or HIV (human immunodeficiency virus) infection.

## What are the symptoms?

Melanoma usually develops on areas of skin exposed to the sun, but it may occur anywhere on the body, including under the nails and in the eye. In men, melanoma tends to develop on the trunk (between the shoulders and hips), the head, or the neck. Women tend to get melanoma more on the lower legs. Melanoma in black people and other

people with dark skin is rare. When it occurs, it usually is under the fingernails or toenails, or on the palms and soles of the feet.

The most common symptom in the early stages of melanoma is a change in the size, shape, color, or feel of an existing mole. Many melanomas have a black or blue-black area. It may also show up as a new mole. It may be black, abnormal, or ugly looking.

Think of the letters A, B, C, and D to remember the guidelines for checking for abnormal moles:

- **Asymmetry:** The shape of one half of the mole does not match the other.
- **Border:** The edges are often ragged, notched, blurred, or irregular. The pigment may spread into the surrounding skin.
- **Color:** The color is uneven. Shades of black, brown, and tan may be present. Even white, grey, red, pink, or blue may be seen.
- **Diameter:** There is a change in size. Melanomas are usually bigger than the eraser of a pencil (1/4 inch or 5 millimeters).

Melanomas vary greatly in how they look. It is important to examine your skin regularly and to have skin exams by your healthcare provider at routine checkups.

## How is it diagnosed?

Your healthcare provider will:

- Examine you and record the size and color of the mole or growth.
- Order a biopsy if you have a suspicious molelike growth. A biopsy is a procedure where the suspicious growth is removed and examined in the lab to see if melanoma is present.

If melanoma is found, you may have other tests. Your provider will do a careful physical exam to look for:

- affected areas at other places on your skin
- enlarged lymph nodes.

Some tests you may have are:

- chest X-ray to examine the lungs
- blood tests
- scans of the liver, bones, and brain.

## How is it treated?

Surgery is the usual treatment. The entire melanoma, including a wide border of healthy tissue around it, is removed to ensure that no cancerous tissue remains. In some cases, you may have a skin graft (skin from another part of the body is used to replace the skin that was removed).

You may have another procedure to see if cancer has spread to your lymph nodes. This is called a sentinel node biopsy. It is done by injecting a special dye into the skin around the melanoma and then removing only the lymph nodes affected by the dye (usually 1 to 3 nodes). If cancer is found, then an operation called node dissection may be done to remove all of the lymph nodes in the area of the melanoma.

If the melanoma has spread to other parts of your body, treatment may include chemotherapy, radiation, biological therapy (immunotherapy), or surgery.

## How can I take care of myself?

Follow your healthcare provider's recommended schedule for regular checkups to increase the chance of early detection of a recurring or new melanoma. This is especially important if you have dysplastic nevi and a family history of melanoma. X-rays, blood tests, and scans of the chest, liver, bones, and brain may be a part of your checkups, depending on the thickness of the melanoma or if it has spread to other tissue.

Perform self skin exams monthly using the ABCD guidelines.

Things you can do to help your treatment and recovery include:

- Exercise according to your provider's advice.
- Get plenty of rest.
- Eat a healthy diet.
- Discuss with your healthcare provider or a mental health professional the stresses in your life. Ask for help in developing ways to cope with stress.

For more information on cancer, contact:

- American Cancer Society, Inc.  
800-ACS-2345 (800-227-2345)  
<http://www.cancer.org> ▶▶
- AMC Cancer Research Center and Foundation  
800-525-3777  
<http://www.amc.org> ▶▶
- Cancer Information Service  
800-4-CANCER (800-422-6237)  
<http://cis.nci.nih.gov> ▶▶

## How can I help prevent melanoma?

Protect yourself from exposure to the sun:

- Wear a broad-brimmed hat and long sleeves when you are outdoors.
- Always use protective skin lotion with paraaminobenzoic acid (PABA) or other proven ingredients such as cinnamate. Use a sunscreen with an SPF (sun protection factor) of at least 15.
- Stay out of the sun from 11 AM until 2:30 PM. These are the hours of strongest sunlight.

- Examine your skin every month or two using the ABCD guidelines.
  - Be aware of any signs or symptoms and report them to your provider promptly.
  - Know your family history of skin cancer.
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