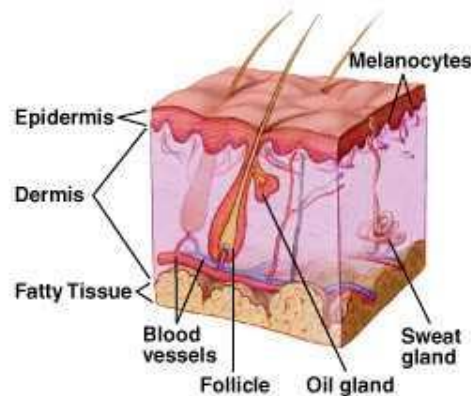


## May is National Melanoma Detection and Prevention Month

### What is Melanoma?

Melanoma is a type of skin cancer. It begins in the cells of the skin (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.



The **skin** is the body's largest organ. It protects against heat, sunlight, injury, and infection. It helps control body temperature, stores water and fat, and produces vitamin D. It has two main layers: the outer epidermis and the inner dermis.

The **epidermis** is mostly made up of flat, scale-like cells called squamous cells. Round cells called basal cells lie under the squamous cells in the epidermis. The lower part of the epidermis also contains melanocytes. The **dermis** contains blood vessels, lymph vessels, hair follicles, and glands. Some of these glands produce sweat, which helps control body temperature. Other glands produce oils that help keep the skin from drying out. Sweat and oils reach the skin's surface through tiny openings called pores.

**Melanocytes** produce melanin, the pigment that gives skin its natural color. When skin is exposed to the sun, melanocytes produce more pigment, causing the skin to tan, or darken. Sometimes, clusters of melanocytes and surrounding tissue form non-cancerous growths called moles or nevi. Moles are very common. Most people have between 10 and 40 moles. Moles may be pink, tan, brown, or a color that is very close to the person's normal skin tone. People who have dark skin tend to have dark moles. Moles can be flat or raised. They are usually round or oval and smaller than a pencil eraser. They may be present at birth or may appear later on, usually before age 40. They tend to fade away in older people. When moles are surgically removed, they normally do not return.

## What are the Key Statistics about Melanoma?

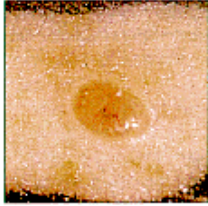
- Cancer of the skin is the most commonly diagnosed of all cancers.
- More than 1 million cases of basal cell or squamous cell cancers occur every year. Most of these forms of skin cancer are curable.
- It is estimated that there will be about 104,930 new cases of skin cancer (excluding basal & squamous) in this country in 2023. 97,610 of these cases will be melanoma.
- About 7,990 people will die of melanoma this year.

## Who's at Risk for Melanoma?

Research has shown that people with certain risk factors are more likely to develop melanoma. The risk factors for melanoma are:

- **Dysplastic nevi.** These are larger than normal moles that have irregular borders. They are usually flat but part of the mole is raised above the skin surface. 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.
- **Personal history of melanoma or skin cancer.** People who have already had melanoma or nonmelanoma skin cancers run a greater risk of developing melanoma in the future.
- **Family history of melanoma.** Melanoma sometimes runs in families. 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 have their skin checked regularly.
- **Weakened immune system.** People whose immune systems are weakened due to medical conditions or medications such as by certain cancers, by drugs given following organ transplants, or by HIV are at an increased risk of developing melanoma.
- **Severe, blistering sunburns.** People who have had at least one 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.** UV radiation from the sun causes premature aging of the skin and skin damage. Being exposed to natural sunlight or artificial sunlight (such as from tanning beds or sunlamps) over long periods of time is a risk factor for melanoma.

## What are Signs and Symptoms of Melanoma?



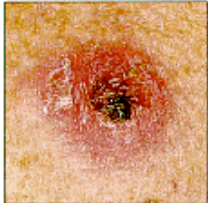
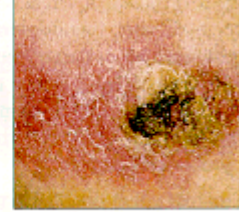
Small, smooth, shiny, pale, or waxy lump



Firm, red lump



A flat, red spot that is rough, dry or scaly



A lump that bleeds or develops a crust

Photos courtesy of NCI's Dermatology Branch

Warning signs for all skin cancers include: changes in size, shape, or color of a mole or skin lesion, new skin growth, or a sore that doesn't heal.

Warning signs of the most common type of melanoma follow the ABCDE rule:

- A is asymmetry (one half of the mole does not match the other half)
- B is irregularity (edges are ragged, notched, or blurred)
- C is color (not uniform in color)
- D is diameter (greater than 6 mm)
- E is evolution (mole changes over time)

Other warning signs include:

- A sore that doesn't heal
- Spread of pigment from the border of a spot into surrounding skin
- Redness or a new swelling beyond the border of the mole
- Change in sensation, such as itchiness, tenderness, or pain
- Change in the surface appearance of a mole

## Can Melanoma be Found Early?

When caught early, melanoma may be highly curable. People should check themselves monthly for new growths or other changes in the skin. By checking your skin regularly, you will become familiar with what is normal. You should tell your healthcare provider about any new, colored growths or any changes in growths that are already present. People who have already had skin cancer or are at a high risk of skin cancer should see a dermatologist at least annually for a full skin exam.

How to do a skin self-exam:

- Looking at the mirror, examine your face, ears, neck, chest, and stomach. Women should remember to examine under their breasts. Use a comb to help examine your scalp.
- Carefully examine your fingers and hands, palms, arms, underarms. Be sure to look carefully at the fronts, backs, and sides of each arm.
- While sitting, examine the front of your legs, the top and bottom of each foot, toes, and your toenails. Use a hand mirror to look at the sides and back of each leg.
- Continuing to use your hand mirror, examine your lower back, buttocks, and groin region. It may be helpful to use a combination of a full length and hand mirror.

## **Can Melanoma be Prevented?**

Below are some 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.).
- Wear long sleeves, long pants, and a hat with a wide brim when outside.
- Wear sunglasses that block UV rays. The label should specify that the lenses block at least 99 percent of UVA and UVB rays. Sunglasses can protect both the eyes and the skin around the eyes.
- Protect yourself from UV rays that can penetrate light clothing, windshields, and windows.
- Protect yourself from UV rays reflected by sand, water, snow, and ice.
- Help protect your skin by using a lotion, cream, or gel that contains sunscreen. Sunscreens with broad spectrum protection (against both UVA and UVB rays) and with sun protection factor (SPF) values of 30 or higher are recommended.
- Avoid tanning beds and sunlamps.

## **Cancer Prevention Trials at Rutgers Cancer Institute of New Jersey**

If you would like information about clinical trials for preventing cancer, please call Rutgers Cancer Institute of New Jersey's Office of Human Research Services at 732-235-7356. For additional information about nationwide cancer prevention trials, you can call the National Cancer Institute at 1-800-4 CANCER or visit their website at [www.cancer.gov](http://www.cancer.gov).

## **Where Can I Find Further Information?**

The Resource and Learning Center

732-235-9639

[www.cinj.org/rlc](http://www.cinj.org/rlc)

Provides reliable, relevant and current information about all aspects of cancer.

The American Cancer Society

1-800-ACS-2345

[www.cancer.org](http://www.cancer.org)

American Institute for Cancer Research

1-800-843-8114

[www.aicr.org](http://www.aicr.org)

National Cancer Institute  
1-800-4-CANCER  
[www.cancer.gov](http://www.cancer.gov)

National Center for Chronic Disease Prevention and Health Promotion  
800-232-4636  
[www.cdc.gov/chronicdisease/index.htm](http://www.cdc.gov/chronicdisease/index.htm)

National Institute of Health  
301-496-4000  
[www.nih.gov](http://www.nih.gov)

The Melanoma Research Foundation  
800-673-1290  
[www.melanoma.org](http://www.melanoma.org)

Environmental Working Group  
[ewg.org](http://ewg.org)



RLC website QR code. Scan with your smartphone or device.