Why You Should Know about Melanoma
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Each year, more than 2 million Americans are diagnosed with skin cancer, the most common form of cancer. Of these, more than 75,000 people will be diagnosed with melanoma, the most serious type of skin cancer.

There are 3 main types of skin cancer. Most are either basal cell or squamous cell cancers. These seldom become life threatening. Melanoma is a less common but more serious cancer. When found early, melanoma can be cured. You need to know about melanoma because it’s important to notice any skin changes and tell a doctor about them right away.

These next few pages describe risk factors and important tips for finding melanoma early – while it’s small and before it has spread.
What is melanoma?

Melanoma is a cancer that starts in melanocytes. These are the cells that make the skin coloring or protective pigment called melanin. Melanin helps protect the deeper layers of the skin from the harmful effects of the sun. When exposed to sunlight, the melanin in your skin increases, and your skin darkens.

Melanoma cells usually still produce melanin. This is why these cancers may have mixed shades of tan, brown, blue, or black.

Basal cell and squamous cell carcinomas of the skin do not commonly spread to other parts of the body. But melanoma can spread if not found and treated at an early stage. Once melanoma cells reach vital organs and grow, they are hard to treat and much less likely to be cured.

Melanoma may start on the skin without warning. It may also start in or near a mole or other dark spot in the skin. That’s why it’s important to know the color, size, and location of the moles on your body, so you’ll notice any changes that may take place.

What causes melanoma?

Ultraviolet (UV) rays are a major risk factor for melanoma. UV rays can damage DNA, the genetic material in your cells. Sometimes this damage changes the genes that control how and when cells grow and divide. If these genes don’t work the way they should, the affected cells may form a melanoma.

Most UV rays come from the sun, but they can also come from artificial sources, such as tanning booths.
Sometimes UV exposure and cell damage may lead to the start of cancer within a few years. But it can also be many years before the damage causes problems. Children and young adults often get a lot of intense sun exposure that may not lead to cancer until they are much older.

Melanoma also runs in some families. In these families, gene changes that increase the risk of melanoma are passed from one generation to the next.

Although most moles never turn into a melanoma, some do. DNA changes can cause the cells of a mole to change into melanoma cells. But it’s still not known why some moles become cancer or why having many moles or unusual moles increases a person’s risk of getting melanoma.

**Who is likely to get melanoma?**

No one is entirely free from the risk of getting melanoma.

People who have the highest risk of melanoma have many moles, irregular moles, or large moles. Those with close blood relatives who have had melanoma and those who have had melanoma themselves are also at higher risk. This can be caused by a family lifestyle of frequent sun exposure, having fair skin, inheriting a gene mutation, or a combination of these factors. Some dermatologists (skin doctors) recommend that those with a history of melanoma in a first-degree relative (mother, father, sister, son, etc.) have a skin exam and talk to a doctor about their risk of melanoma.

People who have fair skin that burns and freckles easily, as well as naturally red or blond hair, are also at higher
risk for melanoma. The same is true of people who have had sunburns as a child or young adult or other types of cancerous or pre-cancerous spots on their skin at any age.

As with most other cancers, the chance of developing melanoma increases as a person gets older. Still, melanoma is one of the most common cancers in younger people.

Melanoma is less common in people with darker skin who rarely get sunburned, but no one is risk-free. When melanoma develops in people whose untanned skin color is brown, it most often starts on the palms, soles of the feet, and under the nails.

**Is there any way to prevent melanoma?**

You can reduce your risk by limiting your time in intense sunlight. This is especially true for fair-skinned people, those with many moles or unusual moles, and those who are at increased risk for any other reason. Seek shade when the sun is high in the sky. Wear protective clothing, sunglasses, and a hat. Use a broad spectrum sunscreen (which protects against different types of UV rays) with a sun protection factor (SPF) of 30 or higher. Remember, sunscreen doesn’t provide total protection from UV rays, but it does help. For the best effect, you will need to put on sunscreen before you go out and again about every 2 hours or after swimming or sweating a lot. Do not use indoor sunlamps and tanning beds.
Check your skin thoroughly once a month.

Get to know your skin and your own pattern of moles, freckles, and birthmarks. Be alert to changes in the number, size, shape, or color of spots on your skin. The best way to do this is to look at your skin. It may also be helpful to have someone else who can check your back, scalp, and other places that may be hard to look at. See your doctor if you find any new or changing skin growths.

How to examine your skin

The best time to do this simple monthly exam is after a bath or shower. Use a full-length mirror and a hand mirror so you can check any moles, blemishes, or birthmarks from the top of your head to your toes. Note anything new – a new skin growth; a change in the size, shape, or color of an existing mole; or a sore that does not heal.

Face the mirror:

1. Check your face, ears, neck, chest, and belly. Use a comb or hair dryer to part your hair so that you can check your scalp.
2. Check the underarm areas, both sides of your arms, the tops and palms of your hands, in between your fingers, and your nails.

**Sit down:**

3. Check the front of your thighs, shins, the tops of your feet, in between your toes, and your toenails.

4. Use a hand mirror to look at the bottom of your feet, your calves, and the backs of your thighs.
Stand up:

5. Use the hand mirror to check your buttocks, genital area, lower and upper back, and the back of your neck and ears.

It may be helpful to look at your back in a wall mirror by using the hand mirror.

If you look at your skin regularly, you will know what’s normal for you. See a dermatologist or other health care professional if you find something new or different.
What is the difference between a melanoma and an ordinary mole?

An ordinary mole is an evenly colored brown, tan, or flesh-colored spot in the skin. It’s either flat or raised. Its shape is round or oval, and it has sharply defined borders. Moles are generally less than 6 millimeters (about 1/4 inch) across. A mole may be present at birth, or it may show up later, usually in the first few decades of life. Sometimes many moles appear at about the same time, especially on areas of the skin exposed to the sun. Once a mole has fully developed, it normally stays the same size, shape, and color for many years. Most moles fade as you get older.
Warning signs

The most important warning sign of melanoma is a new or changing skin growth. This could be a new growth or a change in the size, shape, or color of a spot on your skin.

Most of us have spots on our skin. A non-cancerous growth may sometimes look like a skin cancer. Almost everyone has moles, and most moles are harmless. But a change in the way a mole looks is a sign that you should see your doctor. Here’s the simple ABCD rule to help you remember.

A. Asymmetry: One half of the spot does not match the other half.

B. Border: Normal moles are round or oval in shape and have sharply defined borders. The borders of a melanoma may be uneven, blurred, or notched.

C. Color: Common moles are usually one color throughout. Melanomas may have several colors or an irregular pattern of colors.

D. Diameter: Common moles are generally less than $\frac{1}{4}$ inch across (the diameter of a pencil eraser). Melanomas are often larger, but they can also be smaller than this.

Use this guide to measure spots on your skin.

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\begin{array}{ccc}
\text{1/2”} & \text{1/4”} & \text{1/8”} \\
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Although these are useful warning signs, some melanomas and other skin cancers do not have the ABCD signs.

**Other warning signs of melanoma**

Other warning signs may be:
- A sore that does not heal
- The spread of pigment from the border into nearby skin
- A change in sensation – itchiness, tenderness, or pain
- A change in the surface of a mole – oozing, bleeding, or a new bump or nodule
• A mole that stands out or looks really different from your other moles
• A brown or black streak or spot underneath a nail

How is melanoma diagnosed?

If your doctor suspects that a change in your skin may be melanoma, a sample of the area is removed. This procedure is called a biopsy. It can usually be done quickly and easily in the doctor’s office. The sample is then sent to a pathology lab to be looked at under a microscope to see if it contains cancer cells.

Can melanoma be treated?

Surgery is the best way to treat early melanomas. More advanced melanomas may need other kinds of treatment. Again, the best weapon against melanoma is finding it and removing it early.
This booklet tells you more about melanoma – what it is, what causes it, and what you can do to decrease your risk of ever having it. Anyone can get this serious skin cancer; that’s why you need to know about it.

For cancer information, answers, and support, call your American Cancer Society 24 hours a day, 7 days a week at 1-800-227-2345, or visit our Web site at www.cancer.org.