Take Steps to Prevent Skin Cancer

With summer here, and COVID restrictions loosening up, you may be planning for fun in the sun. Being outdoors can be joyful, but remember that the ultraviolet (UV) rays in sunlight can cause several skin cancers, including the most deadly kind, melanoma.

“Too much exposure to ultraviolet rays does lasting damage to your skin and increases your risk for skin cancer, no matter what your skin type is,” says Anna Nichols, M.D., Ph.D., a dermatologist at Sylvester Comprehensive Cancer Center.

“People with light skin that becomes red or burns easily, who have blonde or red hair, and green or blue eyes, are at greater risk than others,” she says. But even if your skin and your eyes are dark, protect your skin. People of all ethnic backgrounds can and do develop skin cancer.

Read on to learn about skin cancer prevention, and don’t even think about indoor tanning. Going to a tanning salon is paying for trouble.

How sunlight causes cancer

In your skin, UV rays can create molecules called “free radicals.” These unstable, harmful oxygen molecules disrupt your skin cells’ functioning. They cause inflammation and alter the cell’s DNA.

The damaged DNA causes changes in your genes called mutations. And these changes cause cancer.
Your skin’s three-level structure

Your skin has three layers, and cancer can start in any of them.

The top layers consist of thin, flat squamous cells. The squamous layer resides underneath that top layer.

Next, deeper down, comes the basal layer. It contains melanocytes, which hold pigment that gives your skin its color.

Cancers originating in the basal and squamous layers occur most often. About 5.4 million basal cell and squamous cell cancers are diagnosed yearly in the United States.

“These two kinds of cancer are usually curable,” Dr. Nichols says. “But even so, the treatment can leave a person with scars, and it can be expensive and time-consuming.”

Deadly melanomas are on the rise

Only about one percent of skin cancers are melanomas, the form of the illness that causes the most skin cancer deaths.

About 63,000 men and 44,000 women will be diagnosed with melanomas in 2021, according to the American Cancer Society. And this year, about 7,200 people will probably die of this disease.

Melanoma rates have been rising rapidly in recent decades, with risk increasing as people age. “Generally, melanoma occurs more often in men. But when you consider only people who are under age 50, melanoma rates are higher in women than in men,” Dr. Nichols points out.
Sun sense for people of color

Dr. Nichols says that deeply pigmented skin is simply no guarantee you won’t get skin cancer.

Having dark skin lowers the risk of the deadliest form of skin cancer, melanoma, at the more common sites, like the legs, back, and chest. But anyone can develop it on the palms of the hands, soles of the feet, and under the nails. In fact, melanomas in these areas account for more than half of all melanomas in African Americans but fewer than 1 in 10 melanomas in whites.

“If you have dark skin, be sure to check your skin monthly, and include the soles of your feet, your palms, nail beds and genitals,” says Dr. Nichols.

To learn about your specific skin type, and how to protect yourself, visit skcin.org. It gives detailed information about six different skin types, from palest to darkest.

An extremely common problem

“Skin cancer is the most common kind of cancer in the US and in the world,“ says Dr. Nichols. According to the Skin Cancer Foundation, one in five Americans develops skin cancer by the age of 70. In the US, more than 9,500 people receive a diagnosis of skin cancer daily, and two people die of the disease every hour.

As bad as these statistics sound, what’s worse is the fact that the rates of skin cancer have been increasing rapidly in recent decades. Several factors appear to play a role in the more frequent occurrence of skin cancers.

Today’s customs and conditions promote skin cancer

“Years ago, people dressed differently,” says Dr. Nichols. “They covered up more, while today people spend hours outside wearing much less clothing.”
Also, the ozone layer of the atmosphere, found about 6 to 25 miles above ground, which functions to protect life on Earth by soaking up harmful UV rays, has gone through changes in recent years. These changes, which seem to be caused by air pollution, have reduced its ability to act as a shield.

“The sun is probably more intense now than it ever was in the past,” says Dr. Nichols.

**Clothing and timing are better than sunblock**

Nobody enjoys slathering themselves with sunblock and then reapplying it if they stay out for a long time. But if you cover up sufficiently and time your activities carefully, you will need much less of the goo.

Stay indoors as much as you can during hours of intense sunshine. “During the spring and summer, when it’s daylight savings time, avoid the sun from 10 to 4,” says Dr. Nichols. “During standard time, in the fall and the winter, avoid it from 9 to 3.”

Another way to monitor sun intensity is to download a weather app that includes a UV index reading. When that index is three or higher, stay indoors as much as possible. If you must go outside at those hours, dress and use sunblock to protect your skin. “Short exposures to the sun, which we call incidental sun exposure, can add up over time,” Dr. Nichols says. “So don’t forget to protect your skin even if you are not going to be in the sun for a prolonged period.”

**Choose your clothing carefully.**

“Wear long sleeves, long pants, a hat with a wide brim that covers your ears, and sunglasses,” Dr. Nichols says. Choose tightly woven, dark fabrics, which are most protective, over loosely woven, light-colored fabrics. Also, when you’re swimming or
boating, remember that wet clothing offers less protection than dry clothing.

If you do head outside during the sunniest hours, don’t count on clothing to fully protect you. Use sunblock underneath it because the effectiveness of clothing as a shield varies widely -- even if the clothing claims to offer ultraviolet protection.

**A tan is NEVER healthy**

Despite the sun’s tremendous power to injure our skin, many people still think of a tan as looking healthy, explains Dr. Nichols. “We have to convince patients on a daily basis that any amount of tan or darkening of their skin is damage,” she says.

It’s especially troubling, she says, when people say, as they often do, that they want their children to get a little bit of tan. “When you’re younger, your skin is more vulnerable to sun damage,” she notes.

When parents let their kids get tan, the children think of a suntan a healthy and attractive. This wrongheaded mindset can set them up to experience a much greater risk of skin cancer later in life.

**Who is at extra risk for skin cancer?**

People who have had bad sunburns as kids or teenagers are more than twice as
likely to develop skin cancer than people who only burned as adults. “If you’ve had five or more blistering burns when you were young, you’re at the highest risk,” says Dr. Nichols.

That kind of history doubles your risk for melanoma.

“Anyone who has abnormal moles or a lot of moles is also at extra risk for skin cancer,” she says.

**Be sunblock-smart**

Use sunblock correctly to maximize its protective effects.

Follow these tips from Dr. Nichols:

- **Understand the purpose of sunblock.** “People often think that the point of using sunblock is to be able to stay outside longer,” says Dr. Nichols. “That’s not true! The point is to avoid burning.” Try to avoid exposure during the most sun-intense hours, she says.

- **Put on plenty.** “People usually don’t use enough sunblock. It takes more than you would think to protect you,” she says. Also, reapply it as directed on the package.

- **Check its properties.** Ensure it blocks both UVA and UVB rays and has a sun protection factor (SPF) of at least 30.

- **Wear it in the car.** You can get a lot of sun exposure while driving.

Studies have shown that in England, where the steering wheel of a vehicle is on the left side, truck drivers usually develop skin cancer on the left side of their faces. They develop skin cancer more often on the right side in the US, which takes the most sun through the truck’s windows.
Remember that sunblock isn’t mean to be a solo act in your quest to prevent skin cancer. For it to work best, combine sunblock with other measures to protect your skin.

**Plant Foods versus skin cancer**

Eat lots of colorful fresh fruits and vegetables daily to prevent skin cancer and heart disease, diabetes, and lots of other illnesses. “Your diet can help protect you from the sun if you focus on whole, plant-based foods,” says Dr. Nichols.

Such foods contain loads of antioxidants. These helpful chemicals can undo some of the damage caused by the free radicals that the sun’s UV rays give rise to in your skin.

Dr. Nichols follows a 95% plant-based diet herself, with the other 5% including some dairy products, such as cheese and eggs.

**Go for a skin check**

“Everybody, especially people living in sunny places, ought to get total body skin exams regularly,” says Dr. Nichols.

If you’ve never had one, schedule a skin check with a board-certified dermatologist. At your first appointment, the doctor will take your history of risk factors. They will also get a baseline idea of your skin condition and identify spots or moles that need to be monitored.

Yearly skin exams are essential if you:

- have had severe sunburns that blistered
- have used tanning beds
- have members of your immediate family who have had skin cancer
- have lots of moles
- spend lots of time outside, or live in a sunny place
- have received an organ transplant
- have already had some form of skin cancer or have a precancerous lesion

Monitor your skin too

“You can also check your own skin, and your partner’s or family member’s skin, for trouble signs,” says Dr. Nichols. A handy ABCDEF mnemonic can help you remember what to look for in terms of moles or spots that may be cancers:

A for “asymmetrical”
They are oddly shaped or have irregular edges.

B is for “borders”
Their borders are irregular or jagged.

C is for “color”
An irregular or uneven color may indicate the presence of cancer.

D is for “diameter”
They are bigger than ¼ inch across.

E is for “enlargement”
The lesion is growing.

F is for “funny looking”
The lesion or spot looks different than your other spots.
Seek medical attention if you have a lesion or sores that do any of these things:

- feels itchy or bleeds
- doesn’t heal within a few weeks or disappears and then reappears in the same spot.
- changes appearance over time, growing bigger or shrinking, or shifting in shape or color.

**There are good treatments**

Most skin cancers are treated with surgery to completely remove the cancer cells. “We also have a special form of surgery, called Mohs micrographic surgery, which we often use on the face,” Dr. Nichols says. The Mohs technique lets the doctor remove less tissue than a regular excision, to minimize scarring.

“We can sometimes treat basal cell or squamous skin cancers topically, without surgery by prescribing chemotherapy creams,” Dr. Nichols says.

Now, test your skin cancer knowledge with this quiz.

And remember, being sun-smart does demand some effort, but it’s always effort well spent to prevent skin cancer.

Milly Dawson is a contributing writer for UMiami Health News.
What is hyperpigmentation?

It’s the term used when you have patches of skin that are darker than the rest. Some people call these sunspots or age spots, and they’ll sprout anywhere your skin is exposed. While their size and shape can vary, they’re typically flat with a light to medium brown color. Read more.

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