



Kansas State University
Agricultural Experiment Station and
Cooperative Extension Service

Fact Sheet

The American Cancer Society states that many of the more than one million skin cancers expected to be diagnosed this year could have been prevented. To a great extent, protection from the sun will prevent development of skin cancer. Helping people understand the danger of sun exposure and simple protective measures they can take will reduce the amount of skin cancer in the next generation. This fact sheet will focus on (1) measures that can be used to prevent sun damage, (2) how to recognize skin cancer and (3) what to do if skin cancer is detected.

FRY NOW, PAY LATER

What is skin cancer?

There are three types of skin cancer: 1) basal cell carcinomas, 2) squamous cell carcinomas, and 3) malignant melanomas. Malignant melanoma is the most serious form of skin cancer; it grows rapidly. Basal cell and squamous cell carcinomas are less lethal, but still dangerous if not treated in time.

Skin cancer is preventable and curable in most cases. The American Cancer Society has stated that up to 90 percent of skin cancers diagnosed could be prevented by protection from the sun's rays. Because skin cancer is visible, it can be detected soon after it begins. Rates of cure are high when the cancer is diagnosed and treated in its early stages.

What genetics or life habits increase chances of developing skin cancer?

The sun is identified as the source of the problem. Overexposure to the sun's ultraviolet radiation causes all three types of skin cancer. Regardless of skin color, all skin can burn. Light-skinned, light-eyed people of North European descent – particularly those with red or blond hair and freckled skin that reddens and burns easily, blisters and peels – are at high risk. Caucasians with dark hair and eyes and more even pigmentation, as well as Hispanics and Asians, are somewhat less susceptible, and blacks rarely develop either carcinomas or melanomas. The rate of melanomas in blacks, though increasing, is only one fiftieth that of whites. The melanomas that develop in blacks appear to be hereditary.

Tanning inflicts a burn on the skin, causing it to grow darker in color, depending upon how much melanin is present. Melanin acts as a defense mechanism against ultraviolet (UV) rays. It darkens the skin as a means of preventing further injury. The darker a person's natural skin coloring, the more melanin pigmentation is present. Individuals who have at birth or who produce more melanin (those with darker skin or who tan easily) have a limited amount of built-in protection. Melanin helps protect the skin from cancer, but not enough is present to eliminate the risk.

How do we avoid getting skin cancer?

If avoiding overexposure to the sun is the primary preventive skin cancer strategy, staying out of the sun will eliminate the risk. But who wants to stay indoors all day? How can we work outdoors, enjoy outside activities, and protect our skin from harmful rays of the sun?

Skin damage from the sun is cumulative, building up over the years. Long periods of daily sun exposure, even if the skin does not burn, add to your risk of skin cancer. The longer the exposure time, the higher the risk, and exposure during childhood and adolescence plays a major role in development of skin cancer in susceptible individuals. One study showed that blistering sunburns between ages 15 and 20 were associated with an increased risk of melanoma (the relative risk 2.2 for five or more burns vs. none).

Although people of all ages should protect themselves from the sun's damaging rays, some may already have damaged their skin and have the early stages of skin cancer. Skin cancer caused by sun damage may not show up for 30 or more years, but early detection is essential to a cure. Get in the habit of examining your body. Once a month look for unusual blemishes, sores, or discolorations. Other things to observe are:

- Spots or new lesions that bleed and do not heal.
- Precancerous spots that are reddish-brown with a scaly crust.
- Any changes in moles: color, shape, size, irritation and bleeding, painful or itchy.

The following are characteristic warning signs of melanoma:

- Asymmetry: One-half of the mole is unlike the other half.
- Border irregularity: The edges of a mole are ragged, notched, or blurred.
- Color: Pigmentation is not uniform. Shades of tan, brown, and black with dashes of red, white, and blue.
- Diameter: Any mole or growth larger than a pencil eraser should be examined.

Skin cancers have many different looks. Report any unusual blemishes, sores, or skin discolorations to your doctor.

Assess Your Health Risk

Checklist: What are your risks of developing skin cancer?

Your susceptibility to developing skin cancer is a combination of lifestyle and genetics. We all should protect ourselves from harmful solar rays. If you spend a great deal of time outdoors, you will experience more sun exposure; but a short vacation resulting in a severe sunburn can be just as harmful. If you have a genetic predisposition to develop skin cancer even more protection is advised. Each of the following situations involves risk. The higher your risk level, the more precautions you should take.

- My eyes are blue or light green.
- My hair is naturally blond, red, or light-colored.
- My skin is very light in color.
- I have many freckles on my body.
- My parents or other close relatives have experienced skin cancer.
- I have worked outside much of my life.
- I seldom use sun protection lotions or wear protective clothing.
- I work or play outdoors without protection on cloudy days.
- I have taken vacations in sunny locations and have experienced several moderate to severe sunburns.
- I have used a tanning bed or booth.
- I have sunbathed with the goal of obtaining a tan.

