

# Skin Cancer

Revised by Sonja Koukel<sup>1</sup>

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Skin cancer is the most common type of cancer in the United States. According to the American Academy of Dermatology (www.aad.org), one in five Americans will develop skin cancer in their lifetime.



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## HOW SKIN CANCER FORMS

The skin is the largest organ of the body. The skin is waterproof and guards the body against extreme high and low temperatures, overexposure to sunlight, and chemicals that are present all around us (National Geographic Society, n.d.).

Cancer begins in the cells. Cells are the building blocks for the body tissues that make up the skin. The body continually makes new cells to replace cells that die because they grow old or become damaged. This system works very well the majority of the time. However, sometimes new cells form and are not needed by the body, or the old or damaged cells do not die. In both of these situations, a buildup of extra cells results. The extra cells can then form a mass of tissues known as a “growth” or “tumor.”

Not all growths or tumors are cancerous. Benign (not cancer) growths are rarely a threat to life. The common mole is a type of a benign growth. Common moles are smaller than the size of a pea, have an even color (pink, tan, or brown), and have a smooth oval or round shape.

Malignant (cancer) growths can be a threat to life. These cells can damage body organs and tissues, and can spread to other parts of the body (USDHHS, n.d.).

This publication provides information on three types of skin cancer, how to do skin self-examinations, and risk factors. The publication ends with a list of steps recommended to help protect against skin cancer occurrence.

## THREE TYPES OF SKIN CANCER

Three types of skin cancer make up more than 99% of all skin cancers. The cancers are named based on the type of skin cell they develop from:

<sup>1</sup>Associate Professor/Extension Community and Environmental Health Specialist, Department of Extension Family and Consumer Sciences, New Mexico State University.

1. **Basal cell carcinoma (BCC)** from the basal cell,
2. **Squamous cell carcinoma (SCC)** from the squamous cell, and
3. **Melanoma** from the melanocytes.

BCC and SCC are also called non-melanoma skin cancers. These types of cancers mostly occur on areas of the body that are exposed to the sun, such as the:

- arms
- back
- ears
- face
- hands
- lower lip
- neck
- nose
- shoulders
- scalp

For all of these skin cancers, the cure rate is always higher when detected and treated early. Also, early treatment is much simpler, less destructive to the body, and less expensive than surgery or other necessary medical treatments.

Photos of types of skin cancers are available at <http://www.skincancer.org/skin-cancer-information>.

### Basal Cell Carcinoma (BCC)

This is the most common type of skin cancer. BCC makes up about 8 of every 10 diagnosed skin cancer cases ([www.cancer.org](http://www.cancer.org)). Death from basal cell cancers is uncommon. It rarely spreads to other parts of the body. However, BCC can damage and disfigure surrounding skin.

#### Warning signs for BCC:

- **Open sore**—An open sore that bleeds, oozes, or crusts and remains open for a few weeks. It may heal and then bleed again. This is a very common sign of an early BCC.
- **Reddish patch/irritated area**—Very often occurs on the face, chest, shoulders, arms, or legs. The patch sometimes forms a crust and may itch or hurt. Sometimes there is no discomfort associated with the formation.
- **Small, raised bump**—A shiny bump that is clear or has a pearly look. Often the bump is pink, red, or white in color. In dark-haired people the bump can be tan, black, or brown. These bumps can be confused with common moles.
- **Small, pink growth**—May resemble a crater with a raised, rolled border and a crusted indentation in the center. As it grows in size, tiny blood vessels may develop on the skin surface.
- **Scar-like area**—White, yellow, or waxy area with edges that are not defined. The skin looks shiny and tight. Areas such as these may indicate a larger problem not evident on the skin surface.

### Squamous Cell Carcinoma (SCC)

This is the second most common type of skin cancer. In the U.S., rates of SCC have increased up to 200% in the past 30 years. In addition to showing up on sun-exposed areas of the skin (refer to previous list), SCC can occur on other parts of the body, including mucous membranes, genitals, and inside the mouth. SCC can spread and become fatal. Immediately see a doctor if an open sore fails to heal or if there are any changes to an existing skin growth ([www.skincancer.org](http://www.skincancer.org)).

#### Warning signs for SCC:

- **Open sore**—Does not heal. The sore bleeds and crusts.
- **Raised growth with a depression in the center**—Can bleed on occasion. May rapidly increase in size.
- **Scaly, red-patched area**—An area with irregular borders that does not go away. Sometimes the area will crust or bleed.
- **Wart-like growth**—The area looks crusty and may bleed.

### Melanoma

This is the third most common and the most dangerous type of skin cancer. The majority of skin cancer deaths are from melanoma. On average, one American dies from melanoma every hour ([www.aad.org](http://www.aad.org)). An increased survival rate is directly related to early detection and treatment. When not treated early, the cancer can advance and spread to other parts of the body where it becomes hard to treat. Not all melanomas are sun-related, so they can develop on parts of the body not exposed to the sun.

The **A-B-C-D-E** warning signs of melanoma ([www.skincancer.com](http://www.skincancer.com)):

- **A—Asymmetry.** How to determine if a mole (growth) is asymmetrical: If you draw a line through the middle of the mole and the two sides match, then the mole is **symmetrical**. If the two halves do not match, then the mole is **asymmetrical** and should be checked by a physician immediately.
- **B—Border.** A **noncancerous** mole has a smooth, even border. When the borders are uneven, or have a scalloped or notched appearance, this could be an early melanoma.
- **C—Color.** **Noncancerous** moles are usually all one color, such as a single shade of brown. Different shades of brown, tan, or black could be a warning sign. Melanomas may also become red, white, or blue.
- **D—Diameter.** Melanomas are usually larger than common moles. For reference, a melanoma is larger around (diameter) than the eraser on a pencil.
- **E—Evolving.** You see what appears to be a common mole beginning to change (evolve) in any way—in

size, shape, or color, or becoming elevated. Any new symptom, such as bleeding, itching, or crusting, requires a visit to the doctor.

## HOW TO DO A SKIN SELF-EXAMINATION

The Skin Cancer Foundation ([www.skincancer.org](http://www.skincancer.org)) provides step-by-step instructions on how to perform a self-examination. The guidelines are replicated here.

The best time to do a monthly self-exam is after a shower or bath. What you'll need:

- bright light
  - full-length mirror
  - hand mirror
  - two chairs or stools
  - hair blow-dryer
1. Examine your face, especially your nose, lips, mouth and ears—front and back. Use one or both mirrors to get a clear view.
  2. Thoroughly inspect your scalp, using a blow-dryer and mirror to expose each section to view. Get a friend or family member to help, if you can.
  3. Check your hands carefully: palms and backs, between the fingers, and under the fingernails. Continue up the wrists to examine both the front and back of your forearms.
  4. Standing in front of the full-length mirror, begin at the elbows and scan all sides of your upper arms. Don't forget the underarms.
  5. Next, focus on the neck, chest, and torso. Women should lift breasts to view the undersides.
  6. With your back to the full-length mirror, use the hand mirror to inspect the back of your neck, shoulders, upper back, and any part of the back of your upper arms you could not view in Step 4.
  7. Still using both mirrors, scan your lower back, buttocks, and backs of both legs.
  8. Sit down. Prop each leg in turn on the other stool or chair. Use the hand mirror to examine the genitals. Check the front and sides of both legs, thigh to shin, as well as ankles, tops of feet, between toes, and under toenails. Examine soles of feet and heels.

By checking your skin on a monthly basis, you will become familiar with what is normal. If you find anything unusual, see your doctor right away. Remember, the earlier skin cancer is found, the better the chance for cure.

## RISK FACTORS FOR SKIN CANCER

Some people are at higher risk for developing skin cancer than are others. Some general risk factors are having:

- A lighter natural skin color.
- A family history of skin cancer.

- A personal history of skin cancer.
- Exposure to the sun through work and play.
- A history of sunburns, especially early in life.
- A history of indoor tanning.
- Skin that burns, freckles, reddens easily, or becomes painful in the sun.
- Blue or green eyes.
- Blond or red hair.
- Certain types and a large number of moles ([www.cdc.gov](http://www.cdc.gov)).

## SUN EXPOSURE: THE LEADING CAUSE OF SKIN CANCER

Overexposure to the sun's ultraviolet (UV) rays damages skin cells and is the leading cause of skin cancer. Therefore, it is critically important to protect yourself from increasing exposure to the sun.

New Mexico has factors that increase exposure to UV rays, such as high elevation, clear skies, and a high, reflective desert. The state's year-round warm climate increases exposure to the sun with people spending more time outdoors and wearing less clothing than at other times of the year. On a mid-summer day, a fair-skinned person can get sunburned within nine minutes! There are steps you can take to protect yourself from the sun's UV rays, such as always using a sunblock or a broad-spectrum sunscreen.

- **Sunblock.** These products work by reflecting the sun's rays and blocking them from reaching your skin. Zinc oxide and titanium dioxide are common types of sunblock. They are highly effective in protecting against sunburn and skin cancer. The products often appear white on the skin (News Medical Life Sciences, 2007).
- **Broad-spectrum sunscreen.** Sunscreen products should have a sun protection factor (SPF) of 30. This information is provided on the product label. Note: An SPF higher than 30 lasts the same amount of time as one with a lower SPF. A higher SPF does not mean you can stay in the sun longer without reapplying. A higher SPF may also increase the product's cost, which is an unnecessary expense.
  - Sunscreens are less visible on the skin than is sunblock.
  - Apply generous amounts. A generous amount is about 1 ounce—enough to fill a shot glass. You may need more or less depending on your body size.
  - Apply generous amounts often. Generally, sunscreen ingredients break down after several hours of sunlight exposure. Also, sunscreens are not waterproof or sweat-proof. Reapply after swimming or other exercise.
  - Use sunscreen even on cloudy days.
  - Make sure the sunscreen has not expired. Check

the expiration date stamped on the container. If no date is found, use a permanent marker and write the month and year the product was purchased directly on the container. Sunscreen stored at room temperature should be good for up to three years after purchase ([www.skincancer.org](http://www.skincancer.org)). Sunscreen that is expired or exposed to high temperatures loses effectiveness in protecting skin from harmful UV rays.

- Apply lip balms that contain SPF. Some cosmetics contain sunscreen. Check the product label.

- Wear a wide-brimmed hat that protects your scalp, eyes, ears, face, and neck.
- Wear wrap-around sunglasses that provide 100% UV protection.
- Limit your time in the sun when rays are strongest—between 10 a.m. and 4 p.m.
- Seek shade. To test the strength of the UV rays, use the shadow test: If your shadow is shorter than you are tall, the sun's rays are the strongest and it's important to protect yourself ([www.cancer.org](http://www.cancer.org)).
- Take care of your skin: Avoid getting sunburned, avoid deliberate tanning in the sun, and avoid using tanning beds and sunlamps because these emit UV radiation.
- Wear protective clothing. These include fabrics with a tight weave, long-sleeved shirts, long pants or skirts, and dark colors. Hold the fabric up to a light, if you can see through the fabric, UV rays can get through as well. Clothing with a UV protection factor (UPF) is now available. The higher the UPF (on a scale from 15–50+), the higher the protection.
- Children should wear hats and protective covering, limit their time in the sun, and apply sunscreen often. Use extra care to protect babies younger than 6 months ([www.cancer.org](http://www.cancer.org); [www.aad.org](http://www.aad.org); News Medical Life Sciences, 2007).

## PREVENTION AND EARLY DETECTION

Decrease the risk of skin cancer by using the information contained within this guide. Protect yourself and young children against the harmful effects of UV rays.

Also crucial is early detection of signs of skin cancer. See a dermatologist immediately if you recognize any possible signs of skin cancer. If you are diagnosed with skin cancer, a follow-up with your doctor as recommended.

## SOURCES

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*Original authors: Bruce Jacobs, Extension Health Specialist; and Robert J. Segal, Fellow, American Academy of Dermatology.*



*Sonja Koukel is an Associate Professor and Extension Community and Environmental Health Specialist in the Department of Extension Family and Consumer Sciences. She earned her B.S. at NMSU and her M.S. and Ph.D. at Texas Tech University. Her Extension programs focus on health and wellness—physical, mental, spiritual, and environmental.*

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