Skin Cancer
American Cancer Society
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What we’ll be talking about
- How common is skin cancer?
- What is skin cancer?
- The 2 main types of skin cancer
- Causes of skin cancer
- What are the risk factors?
- Can skin cancer be prevented?
- What you can do
- More information

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Skin cancer: How common is it?
- Skin cancer – including melanoma and basal and squamous cell skin cancers – is the most common of all types of cancer.
- It accounts for at least half of all cancers.

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squamous = skway-mus
What is skin cancer?

The skin is the largest organ in the body.

The skin is made up of 3 layers and many different cells.

Skin cancers are named for the type of cells that become cancer.

The outermost part of the epidermis is made up of dead skin cells that are continually shed as new ones form. The cells in this layer are called squamous cells.

Living squamous cells move up from the lowest part of the epidermis, the basal layer. The cells of the basal layer, called basal cells, continually divide to make new skin cells to replace the older ones that wear off the skin’s surface.

Cells called melanocytes (mel-an-o-sites) are also found in the epidermis. These skin cells make the protective brown pigment called melanin. Melanin is what makes the skin tan or brown. This helps protect the deeper layers of the skin from the harmful effects of the sun.

2 main types of skin cancer

- Cancers that develop from melanocytes, the pigment-making cells of the skin, are called melanomas.
- Skin cancers that are not melanoma are sometimes called non-melanoma skin cancers because they tend to act very differently from melanomas. The 2 most common kinds are:
  - Basal cell carcinoma
  - Squamous cell carcinoma
Melanoma

- Melanomas are usually brown or black, but they can be blue, red, or a combination of colors. They can also have no color.
- Melanomas can grow anywhere on the skin, but are more likely to start in certain locations:
  - Trunk (men)
  - Neck
  - Legs (women)
  - Face
- Having darkly pigmented skin lowers your risk, but it’s not a guarantee that you will not get melanoma.
- Anyone can develop this cancer on the palms of the hands, soles of the feet, and under the nails.
- Melanomas can also form in other parts of your body such as the eyes, mouth, and vagina, but these are much less common than melanoma of the skin.

Melanoma and moles are discussed in a separate American Cancer Society document, *Melanoma Skin Cancer*.

Basal and squamous cell skin cancers

- About 8 out of 10 skin cancers are basal cell carcinomas.
- Squamous cell carcinomas account for about 2 out of 10 skin cancers.
- They usually develop on sun-exposed areas of the body.
- They are less serious than melanoma.
Causes of skin cancer

- Most skin cancers are caused by ultraviolet (UV) radiation exposure to the area of skin that develops the cancer.
- The UV radiation changes the genetic material (DNA) in our cells.

**Bullet #1:** Most of this radiation comes from sunlight, but can also come from man-made sources such as tanning booths/lamps.

Skin cancer risk factors

Risk factors are anything that can increase or decrease a person’s chance of getting a disease, such as cancer.

There are many known risk factors for the more common forms of skin cancer. Some of these cannot be changed, but some can.

Having a risk factor, or even several risk factors, does not mean that you will get the disease. And some people who get the disease may not have any known risk factors. Even if a person with skin cancer has a risk factor, it’s often very hard to know how much that risk factor may have contributed to the cancer.

Still, researchers have found several risk factors that may increase a person’s chance of developing skin cancer.
Skin cancer risk factors
- Ultraviolet (UV) light exposure
  - This is the main risk factor for developing most skin cancers
- Fair skin, freckling, and light hair
  - The risk of skin cancer is much higher for light-skinned people than for those with darker skin

These two risk factors increase your chance of both melanoma and non-melanoma skin cancers.

Melanoma risk factors
- Moles
  - Most moles will never cause any problems, but a person who has many moles is more likely to develop melanoma.
- Family history of melanoma
  - Melanoma risk is greater if 1 or more of your first-degree relatives (mother, father, brother, sister, child) has been diagnosed with melanoma.

Melanoma risk factors
- Personal history of melanoma
  - A person who has already had melanoma has an increased risk of getting it again.
- Immune suppression
  - People who have been treated with medicines that suppress the immune system, such as organ transplant patients, have a higher risk of developing melanoma.
- Gender
  - Before age 40, the risk is higher for women; after age 40 the risk is higher in men.

**Bulletin #3:** In the United States, men have a higher rate of melanoma than women overall, although this varies by age, as noted here.
Basal and squamous cell cancer risk factors

- **Age**: Risk goes up as people get older
- **Gender**: Men are about 2 times as likely as women to have basal cell cancers.
- Men are about 3 times as likely as women to have squamous cell cancers of the skin.
- **Treatment with radiation**: Increases risk in area that was treated.

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Exposure to certain chemicals

- Large amounts of arsenic
- Work exposure to industrial tar, coal, paraffin, and certain types of oil
- **Previous skin cancer**: Increases risk of squamous cell cancer, especially on the lips.

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**Bullet #1**: Arsenic is a heavy metal found naturally in well water in some areas. It’s also used in making some pesticides and certain medicines.

**Bullet #2**: Anyone who has had a skin cancer has a much higher chance of developing another one.

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So what can you do to prevent and beat skin cancer?
Preventing skin cancer

There’s no sure way to prevent skin cancer. But there are things everyone can do to help reduce their risk of both melanoma and non-melanoma skin cancers.

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**Bullet #1:** “Slip! Slop! Slap! ... and Wrap” is a catch phrase that reminds people of the 4 key methods they can use to protect themselves from UV radiation. Slip on a shirt, slop on sunscreen, slap on a hat, and wrap on sunglasses to protect the eyes and sensitive skin around them from ultraviolet light.

**Bullet #2:** Clothes provide different levels of protection, depending on many factors.

A typical light T-shirt worn in the summer usually provides little protection. Long-sleeved shirts, long pants, or long skirts are the most protective. Dark colors generally provide more protection than light colors. A tightly woven fabric protects better than loosely woven clothing. Dry fabric is generally more protective than wet fabric.

Some companies now make clothing that is lightweight, comfortable, and protects against UV exposure even when wet. The level of protection the garment provides from the sun's UV
rays is on a scale from 15 to 50+. The higher the UPF, the greater the protection from UV rays.

Newer products are also available to increase the UPF value of clothes you already own. Used like laundry detergents, they add a layer of UV protection to your clothes without changing the color or texture.

**Bullet #1:** A hat with at least a 2- to 3-inch brim all around is ideal because it protects areas often exposed to the sun, such as the neck, ears, eyes, forehead, nose, and scalp. A shade cap (which looks like a baseball cap with about 7 inches of fabric draping down the sides and back, as in the second picture from the left) is also good. These are often sold in sports and outdoor supply stores.

A baseball cap can protect the front and top of the head but not the back of the neck or the ears, where skin cancers commonly develop. Straw hats are not recommended unless they are tightly woven.

**Bullet #2:** Broad-spectrum sunscreens and lip balms protect against UVA and UVB rays – both types of rays are known to cause sun damage. Use sunscreen even on hazy days or days with light or broken cloud cover because the UV light still comes through.
Preventing skin cancer

- Do not use sunscreen to stay out in the sun longer
- Wear wrap-around sunglasses that block UVA and UVB light and have at least 99% UV absorption
- Stay in the shade
- Avoid other sources of UV light (tanning beds, tanning lamps, and sun lamps)

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Preventing skin cancer

- Protect children from the sun
  - Kids tend to spend more time outside and burn more easily
  - Make sun safety a habit for your kids!
- Identify abnormal moles and have them removed
  - Some moles→increased risk of developing into a melanoma

**Bullet #2:** Routine removal of many moles is not generally recommended as a way to prevent melanoma. Some melanomas may develop from moles, but most do not. If you have many moles, a careful, routine exam by your doctor or a dermatologist, along with regular skin self-exams may be recommended.
Finding skin cancer early

Skin cancer can often be found early—when it’s small and easier to treat.

- Get your skin checked by a health care professional
  - This should be part of a routine cancer-related check-up
  - Your doctor should be willing to discuss any concerns you might have about this exam.

Any suspicious spots or unusual moles should be seen by your primary doctor or by a dermatologist, a doctor who specializes in skin problems.

Ask your doctor to look at areas that may be hard for you to see.

Finding skin cancer early

- Know your skin
  - Check your own skin, preferably on a regular basis
  - Learn the pattern of moles, blemishes, freckles, and other marks so that you’ll notice any changes.
  - Self-exam is best done in a well-lit room in front of a full-length mirror. A hand-held mirror can be used for areas that are hard to see.
  - Examine all areas, including your palms and soles, scalp, ears, nails, and your back.

You can play an important role in finding skin cancer early.

For instructions on how to do a skin self-exam, see the American Cancer Society’s Skin Self-exam Gallery at www.cancer.org/skinselfexam.

Friends and family members can also help you with these exams, especially for those hard-to-see areas, such as the lower back, scalp, or the back of your thighs.

Finding skin cancer early

- What you should look for
  - A new growth
  - A spot, bump, or mole that has slowly gotten larger (over a few months or 1 to 2 years)
  - A spot or mole that’s changing in shape, feel, or color
  - A sore that doesn’t heal within 3 months

If you have a spot that worries you, see a doctor as soon as you can.

Any unusual sore, lump, blemish, marking, or change in the way an area of the skin looks or feels may be a sign of skin cancer or a warning that it might occur. The skin might become scaly or crusty or begin oozing or bleeding. It may feel itchy, tender, or painful. Redness and swelling may develop.
Finding melanoma early

The ABCD rule can help tell a normal mole from an abnormal mole or a melanoma. Moles that have any of these traits should be checked by a doctor:

- **Asymmetry**: half the mole does not match the other half
- **Border irregularity**: edges of the mole are irregular, ragged, blurred, or notched
- **Color**: mole is not the same color all over. Differing shades of tan, brown, or black may be present, and sometimes patches of pink, red, blue, or white
- **Diameter**: larger than 6 millimeters or about ¼ inch, but melanomas can be smaller than this

Keep in mind that a few melanomas are not dark, and that they can happen other places than the skin, such as in the eyes and under fingernails and toenails.

Some pictures to show you how the ABCD rule can work.

**Point out:**

- **Asymmetry**: One half of the mole does not match the other half.
- **Border irregularity**: The edges of the mole are irregular, ragged, blurred, or notched.
- **Color**: The color of the mole is not the same all over. There may be differing shades of tan, brown, or black, and sometimes patches of pink, red, blue, or white.
- **Diameter**: The mole is larger than 6 millimeters or about ¼ inch, but melanomas can be smaller than this.

**Emphasize that although these are typical, not all melanomas look like this: they can be smaller and even flesh-colored.**
Be sure to show your doctor any area of your skin that concerns you.

More information
- You can get more information on skin cancer on our website, cancer.org/skin
- Call 1-800-227-2345 and speak to one of our cancer information specialists

Thank you!