Skin Cancer

American Cancer Society

Reviewed February 2014

What we'll be talking about

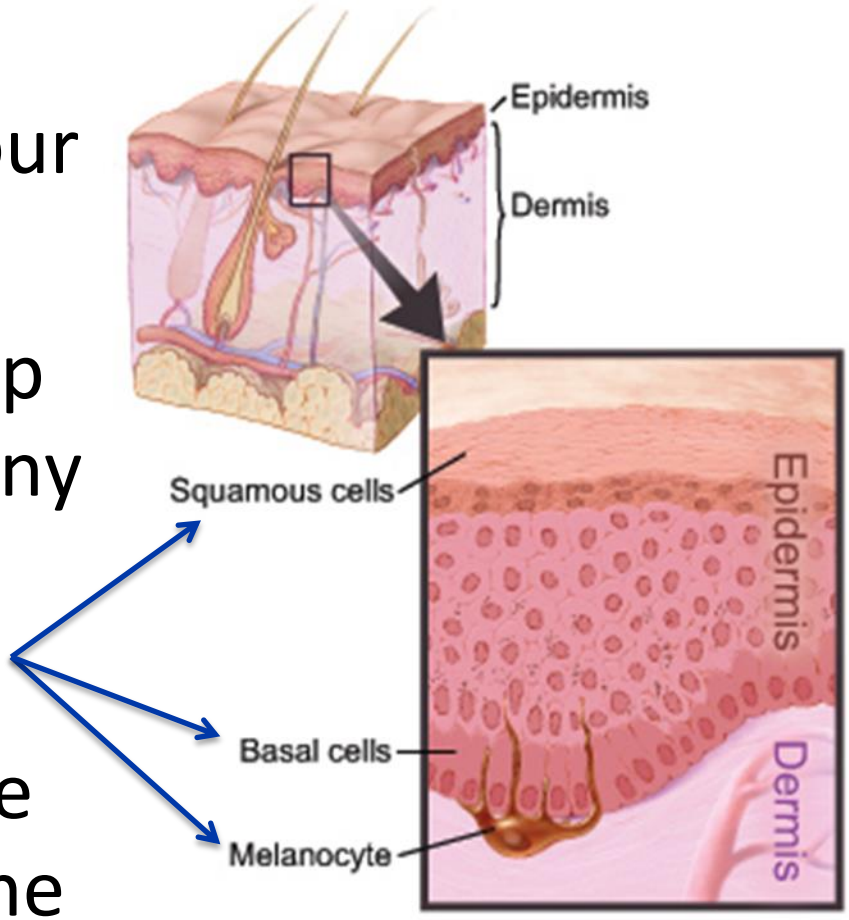
- How common is skin cancer?
- What is skin cancer?
- The 2 main types of skin cancer
- Causes of skin cancer
- What are the risk factors?
- Can skin cancer be prevented?
- What you can do
- More information

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.
- Cases of melanoma have been increasing for many years.

What is skin cancer?

- The skin is the largest organ in your 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.



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

- Melanoma is a cancer that starts in skin cells called melanocytes.
- 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)
  - Legs (women)
  - Neck
  - Face

Melanoma

- Is much less common than basal cell and squamous cell skin cancers, but it's far more dangerous.
- Is almost always curable in its early stages – when it's small and has not spread.
- Is much more likely than basal or squamous cell cancer to spread to other parts of the body if not caught early.

Basal cell skin cancers

- About 8 out of 10 skin cancers are basal cell carcinomas.
- Under the microscope these cancer cells look a lot like the basal cells of the epidermis.
- They usually develop on sun-exposed areas, especially the head and neck.

Basal cell skin cancers

- Once found only in middle-aged or older people, they now are also being seen in younger people.
- Tend to be slow growing
- Rarely spread (metastasize) to nearby lymph nodes or to distant parts of the body.

Basal cell skin cancers

- If not treated can grow into nearby areas and invade the bone or other tissues beneath the skin.
- After treatment, basal cell carcinoma can recur (come back) in the same place on the skin.

Squamous cell skin cancers

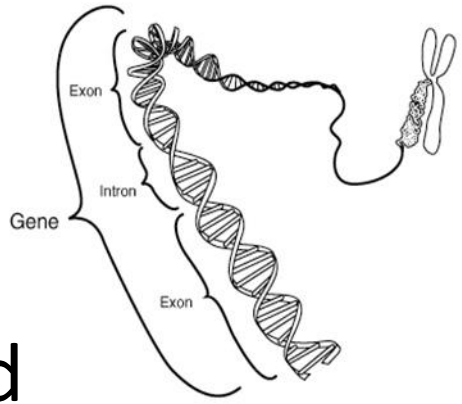
- Squamous cell carcinomas account for about 2 out of 10 skin cancers.
- They commonly appear on sun-exposed areas of the body such as the face, ears, neck, lip, and back of the hands.
  - They can also develop in scars, chronic skin sores, or in a pre-cancerous lesion called an actinic keratosis.
  - Less often, they form in the skin of the genital area.

Squamous cell skin cancers

- Tend to be more aggressive than basal cell cancers.
- They are more likely to invade fatty tissues just beneath the skin, and are more likely to spread to lymph nodes and/or distant parts of the body, but this is uncommon.

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.



- In some families with inherited melanomas, genetic changes that greatly increase the risk of melanoma are passed from one generation to the next.

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.

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

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.
  - About 10% of all people with melanoma have family members 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 an increased risk of developing melanoma.
- Gender
  - Before age 40, the risk is higher for women; after age 40 the risk is higher in men.

Melanoma risk factors

- Age
  - Melanoma is less related to aging than most cancers, but it's still more likely to occur in older people.
  - Still, this is one of the few cancers that's also found in younger people.
    - Melanoma is one of the most common cancers in people younger than 30.
    - Melanoma that runs in families may occur at a younger age (such as in children).

Basal and squamous cell cancer risk factors

- Older age
  - The risk of basal and squamous cell skin cancers grows 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.

Basal and squamous cell cancer risk factors

- Exposure to certain chemicals
  - Large amounts of arsenic
  - Work exposure to industrial tar, coal, paraffin, and certain types of oil
- Treatment with radiation → increased risk in area that was treated
- Previous skin cancer
- Long-term or severe skin inflammation or injury

Basal and squamous cell cancer risk factors

- Psoriasis treatment
- Certain rare inherited skin conditions
  - Xeroderma pigmentosum (XP)
  - Basal cell nevus syndrome
- Smoking
- HPV infection
- Reduced immunity

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

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Preventing skin cancer

There's no sure way to prevent skin cancer.

But there are things everyone can do to reduce their risk of both melanoma and non-melanoma skin cancers.

Preventing skin cancer

- Limit ultraviolet (UV) exposure
  - Sun safety
  - “Slip! Slop! Slap!® … and Wrap”
  - Do not use tanning beds or sun lamps

- Protect your skin with clothing
  - Be aware that covering up doesn’t block out all UV rays.
  - Some sun-protective clothes have a label listing the ultraviolet protection factor (UPF) value.

Preventing skin cancer

- Wear a hat

- Use a broad-spectrum sunscreen that's at least SPF 30
  - Put it on about 20 to 30 minutes before you go outside.
  - Reapply at least every 2 hours
- Do not use sunscreen to stay out in the sun longer

Preventing skin cancer

- Wear sunglasses
  - Wrap-around sunglasses
  - At least 99% UV absorption
  - Block UVA and UVB light

- Stay in the shade
  - Especially during the hottest part of the day (often 10 a.m. to 4 p.m.)
  - Shadow test: If your shadow is shorter than you, the sun's rays are the strongest—stay inside or be extra careful.

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!
- Avoid other sources of UV light
  - Tanning beds
  - Tanning lamps
  - Sun lamps

Preventing skin cancer

- Identifying abnormal moles and having them removed
  - Certain types of moles have an increased risk of developing into a melanoma.
  - Routine removal of many moles is not generally recommended as a way to prevent melanoma.

A word about vitamin D

- Sun exposure and vitamin D
  - Vitamin D is needed to build bone.
  - Vitamin D is made naturally by your skin when you are in the sun.
  - It's best to protect your skin from the sun and get Vitamin D by mouth (from your diet or a vitamin supplement)

Examples of amounts of Vitamin D in foods:

3 oz salmon = 447 IU

1 glass (8 oz) of vitamin D fortified orange juice = 137 IU

1 glass (8 oz) of vitamin D fortified milk = 120 IU

Skin cancer early detection

Skin cancer can often be found early – when it's small, has not spread, and is easier to treat.

Finding skin cancer early

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

Finding skin cancer early

- Know your skin
  - Check your own skin, preferably once a month
  - 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. Use a hand-held mirror for areas that are hard to see.
  - Examine all areas, including your palms and soles, scalp, ears, nails, and your back.

Finding skin cancer early

- What you should look for
  - Skin cancers can look like a variety of marks on the skin
  - Key warning signs:
    - 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

Finding skin cancer early

- Normal moles
  - Evenly colored brown, tan, or black spot
  - Can be either flat or raised
  - Can be round or oval
  - Generally less than about ¼ inch across (about the width of a pencil eraser)
  - Can be present at birth or appear later
  - Many moles can appear at the same time, especially on areas of the skin exposed to the sun.

Finding skin cancer early

- Normal moles, cont.
  - Once a mole has developed, it will usually stay the same size, shape, and color for many years
  - Over time moles may fade away in older people
  - Most people have moles, and almost all moles are harmless
  - **It's important to recognize any changes in a mole that can suggest a melanoma may be developing and see a doctor right away.**

Finding melanoma early

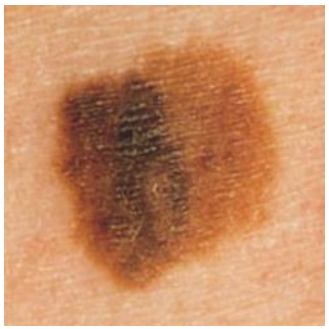
The *ABCD rule* can help tell a normal mole from an abnormal mole or a melanoma. Moles that have any of these traits should be checked by a doctor:

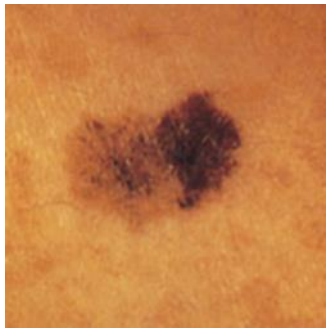
- **A**symmetry: half the mole does not match the other half
- **B**order irregularity**:** edges of the mole are irregular, ragged, blurred, or notched
- **C**olor: mole is not the same color all over. Differing shades of tan, brown, or black may be present, and sometimes patches of pink, red, blue,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

Melanoma

A normal mole →

melanoma





Be sure to show your doctor any area of your skin that concerns you.

More information

You can get more information about skin cancer on our web site, cancer.org, or call 1-800-227-2345 and talk with one of our Cancer Information Specialists. Some of our titles include:

- A Parent's Guide to Skin Protection
- Melanoma Skin Cancer: Detailed Guide
- Skin Cancer - Basal and Squamous Cell: Detailed Guide
- Skin Cancer Prevention and Early Detection
- Why You Should Know About Melanoma

All are also available in Spanish.

Thank you!

American Cancer Society®

We **save lives** and create more birthdays
by helping you stay well, helping you get well,
by finding cures, and by fighting back.

cancer.org | 1.800.227.2345