
Diseases and Conditions

Moles

By Mayo Clinic Staff

Moles are a common type of growth on the skin. They often appear as small, dark brown spots and are caused by clusters of pigmented cells. Moles generally appear during childhood and adolescence. Most people have 10 to 45 moles, almost all of which appear before age 40. Some moles may fade or disappear as you age.

Most moles are harmless. Rarely, they become cancerous. Monitoring moles and other pigmented patches is an important step in detecting skin cancer, especially malignant melanoma.

The medical term for moles is nevi.

The typical mole is a brown spot. But moles come in a wide variety of colors, shapes and sizes:

- **Color and texture.** Moles can be brown, tan, black, red, blue or pink. They can be smooth, wrinkled, flat or raised. They may have hair growing from them.
- **Shape.** They can vary in shape from oval to round.
- **Size.** Moles are usually less than 1/4 inch (about 6 millimeters) in diameter — the size of a pencil eraser. Rarely, moles present at birth can be much bigger, covering wide areas of the face, torso or a limb.

Moles can develop anywhere on your body, including your scalp, armpits, under your nails, and between your fingers and toes. Most people have 10 to 45 moles. Most of these develop by age 40. Moles may change in appearance over time — some may even disappear with age. Hormonal changes of adolescence and pregnancy may cause moles to become darker, larger and more numerous.

Unusual moles that may indicate melanoma

This ABCDE guide can help you determine if a mole or a spot may be melanoma:

- **A is for asymmetrical shape.** One half is unlike the other half.
- **B is for border.** Look for moles with irregular, notched or scalloped borders.

- **C is for color.** Look for growths that have changed color, have many colors or have uneven color.
- **D is for diameter.** Look for new growth in a mole larger than 1/4 inch (about 6 millimeters).
- **E is for evolving.** Watch for moles that change in size, shape, color or height, especially if part or all of a mole turns black.

Cancerous (malignant) moles vary greatly in appearance. Some may show all of the features listed above. Others may have only one or two.

When to see a doctor

See your doctor if you have a mole that:

- Is painful
- Itches or burns
- Oozes or bleeds
- Shows any of the ABCDE characteristics listed above
- Grows back after having been removed before
- Is new and you're over 30 years old

If you're concerned about any mole, see your doctor or ask for a referral to a doctor who specializes in skin conditions (dermatologist).

Moles are caused when cells in the skin, called melanocytes, grow in clusters or clumps. Melanocytes are distributed throughout your skin and produce melanin, the natural pigment that gives your skin its color.

Melanoma is the main complication of moles. Some people have a higher than average risk of their moles becoming cancerous and developing into melanoma. Factors that increase your risk of melanoma include:

- **Being born with large moles.** These types of moles are called congenital nevi. On an infant, such moles are classified as large if they're more than 2 inches (5 centimeters) in diameter. Even a large mole seldom becomes cancerous and almost never before the child reaches puberty.
- **Having unusual moles.** Moles that are bigger than a common mole and irregular in shape are known as atypical (dysplastic) nevi. They tend to be hereditary. And they often have dark brown centers and lighter, uneven borders.
- **Having many moles.** Having more than 50 ordinary moles on your body indicates an increased risk of melanoma. Two recent studies add to the evidence that the number of your moles predict cancer risk. One showed that people with 20 or more moles on their arms are at increased risk of melanoma. Another showed a relationship between the number of women's moles and breast cancer risk.
- **Having a family history of melanoma.** Some types of atypical moles lead to a

genetic form of melanoma.

If you have a mole that concerns you, your family doctor can usually let you know if it's normal or needs further investigation. He or she may then refer you to a doctor who specializes in skin disorders (dermatologist) for diagnosis and treatment.

It's a good idea to arrive for your appointment well-prepared. Here's some information to help you get ready.

What you can do

- **List any changes you've noticed or any new symptoms you're experiencing.** Include any that may seem unrelated to the reason for which you scheduled the appointment.
- **Bring a list of all medications,** vitamins or supplements that you're taking.
- **If you've had a melanoma or a mole removed in the past,** note the location of the lesion and also the date of removal. If you have the biopsy report, bring it with you to the appointment.
- **Don't wear makeup or opaque nail polish to your appointment.** These products make it difficult for your doctor to perform a thorough skin exam.
- **List questions to ask** your doctor.

Your time with your doctor is limited, so preparing a list of questions can help you make the most of your time together. List your questions from most important to least important in case time runs out. For moles, some basic questions to ask your doctor include:

- Do you think this mole might be cancerous?
- What's the most appropriate course of action?
- How can I tell if a mole needs to be looked at?
- Can I prevent more moles from developing?
- Do you have any brochures or other printed material that I can take home with me? What websites do you recommend?

In addition to the questions that you've prepared, don't hesitate to ask questions during your appointment.

What to expect from your doctor

Your doctor is likely to ask you a number of questions, such as:

- When did you first notice this mole?
- Have you always had it, or is it new?
- Have you noticed any changes in this mole, such as its color or shape?
- Have you had other moles surgically removed in the past? If so, do you know if they were unusual (atypical) or malignant?

- Do you have a family history of atypical moles, melanoma or other cancers?
- Have you had peeling sunburns or frequent exposure to ultraviolet radiation, such as from tanning beds?

Your doctor can identify moles by visually inspecting your skin. You may choose to make a skin examination a regular part of your preventive medical care. Talk to your doctor about a schedule that's appropriate for you. During a skin exam, your doctor inspects your skin from head to toe.

If your doctor suspects that a mole may be cancerous, he or she may take a tissue sample (biopsy) and submit it for microscopic examination.

Treatment of most moles usually isn't necessary. If your doctor thinks a mole is suspicious, he or she may take a tissue sample of it and have it tested to determine if it's cancerous.

Mole removal

If your mole is cancerous, your doctor will do a surgical procedure to remove it. If you have a mole in the beard area, you may want to have it removed by your doctor because shaving over it repeatedly may cause irritation. You may also want to have moles removed from other parts of your body that are vulnerable to trauma and friction.

Mole removal takes only a short time and is usually done on an outpatient basis. The procedure may leave a permanent scar. Options for mole removal include:

- **Surgical excision.** In this method, your doctor numbs the area around the mole and cuts out the mole and a surrounding margin of healthy skin with a scalpel or a sharp punch device. Then he or she closes the wound with sutures.
- **Surgical shave.** In this method, your doctor numbs the area around the mole and uses a small blade to cut around and beneath it. This technique is often used for smaller moles and doesn't require sutures.

If you notice that a mole has grown back, see your doctor promptly.

Cosmetic care

If you're self-conscious about a mole, these methods may help conceal it:

- **Makeup.** Various products are available for concealing blemishes and moles. You may need to try several before you find one that works for you.
- **Hair removal.** If you have a hair growing from a mole, you might try clipping it close to the skin's surface or plucking it. Or talk with your dermatologist about permanently removing the hair and the mole.

Anytime you cut or irritate a mole, keep the area clean. See your doctor if the mole doesn't heal.

The following measures can help limit the development of moles and the main

complication of moles — melanoma.

Watch for changes

Become familiar with the location and pattern of your moles. Regularly examine your skin carefully to look for skin changes that may signal melanoma. Ideally, do self-exams once a month, especially if you have a family history of melanoma.

Do a head-to-toe check, including your scalp, palms and fingernails, armpits, chest, genital area, feet (the soles, toenails and between the toes), and between the buttocks. If necessary, use a hand-held mirror along with a wall mirror to scan hard-to-see places, such as your back.

If you have many moles or unusual-looking moles, you may want to have a full-body mole check by a dermatologist.

To detect melanomas or other skin cancers, use this ABCDE skin self-examination guide:

- **A is for asymmetrical shape.** Look for moles with irregular shapes, such as two very different-looking halves.
- **B is for border.** Look for moles with irregular, notched or scalloped borders.
- **C is for color.** Look for growths that have changed color, have many colors or have uneven color.
- **D is for diameter.** Look for new growth in a mole larger than 1/4 inch (about 6 millimeters).
- **E is for evolving.** Watch for moles that change over weeks or months.

Protect your skin

Take measures to protect your skin from ultraviolet (UV) radiation, such as from the sun or tanning beds. UV radiation has been linked to increased melanoma risk. And children who haven't been protected from sun exposure tend to develop more moles.

- **Avoid peak sun times.** It's best to avoid overexposure to the sun. If you must be outdoors, try to stay out of the sun from 10 a.m. to 4 p.m., when UV rays are strongest.
- **Use sunscreen year-round.** Apply sunscreen about 30 minutes before going outdoors, even on cloudy days. Use a broad-spectrum sunscreen with an SPF of at least 15. Apply it generously and reapply every two hours — or more often if you're swimming or sweating. The American Academy of Dermatology recommends using a broad-spectrum, water-resistant sunscreen with an SPF of at least 30.
- **Cover up.** Sunglasses, broad-brimmed hats, long sleeves and other protective clothing can help you avoid damaging UV rays. You might also want to consider clothing that's made with fabric specially treated to block UV radiation.
- **Avoid tanning beds.** Tanning beds emit UV rays and can increase your risk of skin cancer.

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