CONDITION

Aging spots - should you be concerned?

Learn what age spots look like, how sun exposure causes them, when a changing spot should be checked, and which treatments may help.

WHAT IT IS
Flat areas of increased skin pigment

BODY SYSTEM
Skin

MAIN SYMPTOMS
Flat tan or brown spots, painless, not itchy, sun-exposed areas

WHAT CAUSES IT
Repeated UV exposure

HOW IT IS DIAGNOSED
Clinical examination, dermoscopy, skin biopsy if uncertain

MAIN TREATMENT
Sun protection, cosmetic lightening treatments or procedures

CAN IT BE CURED?
Sometimes - treatment may remove individual spots

IS IT AN EMERGENCY?
Sometimes - trouble breathing after treatment

LONG-TERM OUTLOOK
Generally harmless, but new spots may develop

Overview

Age spots are flat areas of increased skin pigment. Their medical name is solar lentigines . They are also called sun spots or liver spots, although they are not caused by liver disease.

These spots usually develop on skin that has received years of ultraviolet, or UV, exposure. Common locations include the face, backs of the hands, shoulders, upper chest, and forearms. Sunlight is the main source of UV radiation, but tanning beds and sunlamps can also contribute.

A typical age spot is harmless and does not need treatment. Treatment is usually considered for cosmetic reasons rather than medical necessity.

The important concern is that some skin cancers and precancerous growths can resemble an age spot. A new or changing pigmented area should not automatically be assumed to be

harmless. A clinician can examine a questionable spot and decide whether testing is needed.

Symptoms

Age spots are usually:

Their size varies. Small spots may look like freckles, while neighboring spots may merge into a larger patch. Unlike freckles, age spots generally do not fade much during winter.

An age spot should not form an open sore or repeatedly crust and bleed. It also should not cause ongoing pain. Those features may have another explanation and deserve medical review.

The ABCDE guide can help identify changes that need attention:

Another useful warning sign is the "ugly duckling" pattern. This means one spot looks noticeably different from the other spots on your skin.

These signs do not prove that a spot is cancerous. They mean it should be examined rather than treated at home as an age spot.

- Flat rather than raised
- Tan, brown, or dark brown
- Round, oval, or irregular in outline
- Clearly separated from nearby skin
- Painless and not itchy
- Located in areas with frequent sun exposure
- Present alone or grouped with several other spots
- A - Asymmetry: One half does not match the other.
- B - Border: The edges are irregular, blurred, or notched.
- C - Color: The spot contains several colors, such as brown, black, red, white, or blue.
- D - Diameter: The spot is getting larger. Melanoma can be small, so size alone cannot rule it out.
- E - Evolving: The spot is changing in size, shape, color, elevation, or symptoms.

Causes and risk factors

Skin contains cells called melanocytes, which make the pigment melanin. Melanin gives skin much of its color and helps absorb some UV radiation. With repeated UV exposure, areas of skin may produce or retain extra pigment. This can create a solar lentigo.

Age spots become more noticeable over time because UV damage builds up over many years. Aging itself is not the only cause. A younger person with substantial sun or tanning-bed exposure may also develop them.

Factors associated with age spots include:

People with any skin tone can develop areas of excess pigment. However, the appearance of a spot and the chance of pigment changes after treatment can differ with skin tone.

Age spots are not contagious. They are not caused by an infection, and they cannot spread from one person to another. They also do not result from poor hygiene.

- Years of unprotected sun exposure
- A history of tanning-bed or sunlamp use
- Frequent outdoor work, recreation, or sports
- Skin that burns easily
- Increasing age
- Previous sunburns

Diagnosis

A clinician can often recognize an age spot by examining its color, shape, surface, and location. They may ask when it appeared, whether it has changed, and whether it causes itching, pain, crusting, or bleeding.

A dermatologist may use a dermoscope , a handheld magnifying device with special lighting. It allows the clinician to examine pigment patterns and structures that are difficult to see with the unaided eye.

Several conditions can resemble an age spot. These include freckles, moles, post-inflammatory hyperpigmentation, and seborrheic keratoses. A seborrheic keratosis is a common, noncancerous growth that often has a waxy or "stuck-on" surface.

More importantly, lentigo maligna and other forms of melanoma may look like a flat brown patch. Lentigo maligna is an early form of melanoma that often develops on chronically sun-damaged skin.

If the diagnosis is uncertain, the clinician may recommend a skin biopsy . During a biopsy, all or

part of the spot is removed after the area is numbed. A laboratory specialist examines the tissue under a microscope. Biopsy is the reliable way to determine whether a suspicious pigmented spot contains cancer cells.

Avoid applying a lightening cream or attempting to freeze or burn off a questionable spot before it is assessed. Changing its appearance may delay an accurate diagnosis.

Treatment and management

A confirmed age spot does not require medical treatment. Some people choose to leave it alone. Others want to make it less noticeable for cosmetic reasons.

Sun protection is the foundation of management. It may help prevent additional spots, reduce further darkening, and protect treated skin.

Helpful measures include using broad-spectrum, water-resistant sunscreen with an SPF of at least 30 on exposed skin. Follow the product label and reapply when needed, especially after swimming or sweating. Shade, long sleeves, a wide-brimmed hat, and avoiding indoor tanning provide added protection.

Several treatments can fade or remove age spots, but results vary. No option guarantees permanent removal, and new spots may develop with continued UV exposure.

Topical treatments

A dermatologist may recommend or prescribe a pigment-lightening cream. Depending on the person and the spot, this may contain hydroquinone, a retinoid such as tretinoin, or another pigment-reducing ingredient.

These products usually work gradually. Irritation, dryness, peeling, or uneven skin color can occur. Stronger products should be used under professional supervision, particularly on the face or in people prone to dark marks after inflammation.

Some unregulated skin-lightening products have contained mercury or undeclared ingredients. Mercury can cause serious harm. Products without a clear ingredient list or from an uncertain source should be avoided.

Procedures

A dermatologist may offer a procedure when faster or more noticeable improvement is desired. Options include:

Procedures may cause temporary redness, swelling, crusting, or discomfort. Possible longer-term effects include scarring and skin that becomes lighter or darker than the surrounding area. Post-treatment darkening can be more noticeable in darker skin tones.

Choosing a clinician experienced with the procedure and with your skin tone may reduce risk. Eye protection is essential for light- or laser-based treatment near the eyes.

Do not attempt to remove spots with household acids, bleach, cutting, or unsupervised freezing products. These methods can cause burns, infection, scarring, and delayed diagnosis of a skin cancer.

- Cryotherapy: Liquid nitrogen freezes pigment-producing cells in the spot.
- Laser or intense pulsed light treatment: Concentrated light targets excess pigment.
- Chemical peel: A chemical solution removes controlled layers of surface skin.
- Dermabrasion or microdermabrasion: The skin surface is mechanically resurfaced.

Complications

Age spots themselves do not become cancerous and generally do not cause physical complications. The main medical concern is mistaking a cancerous or precancerous lesion for a harmless spot.

Treatment can cause complications. These may include irritation, burns, infection, scarring, or permanent changes in skin color. Treated areas can also darken again, especially without continued sun protection.

Pigmented spots may also affect confidence or cause worry about appearance. It is reasonable to discuss these concerns with a clinician, even when treatment is optional.

Follow up

A spot that has been examined and confirmed as harmless usually needs only routine observation. Check it occasionally for changes, and continue sun protection. Taking a clear photograph with the date may make gradual changes easier to recognize.

Arrange a routine appointment if you are unsure what a spot is, if you want cosmetic treatment, or if a treatment causes persistent irritation.

Request a prompt medical assessment if a spot:

These changes usually do not require an emergency department visit, but they should not be postponed for months. A dermatologist or primary care clinician can determine how quickly the area needs evaluation.

Emergency care is rarely needed for an age spot. Seek emergency help after a treatment if you

develop trouble breathing, swelling of the face or throat, a serious eye exposure, or signs of a severe burn affecting a large area.

- Is new and looks different from your other spots
- Changes in shape, color, size, or height
- Develops an irregular border or several colors
- Itches persistently, becomes painful, or feels tender
- Crusts, bleeds, or does not heal
- Returns after treatment or changes within a scar

Sources

- American Academy of Dermatology Association. Age spots (liver spots): Overview and Age spots: Diagnosis and treatment . AAD public education resources.
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