CONDITION

Liver spots

Liver spots are harmless, flat areas of increased skin pigment caused mainly by long-term ultraviolet light exposure.

WHAT IT IS
Flat areas of increased skin pigment

BODY SYSTEM
Skin

MAIN SYMPTOMS
Flat brown spots, painless, sharply defined edges

WHAT CAUSES IT
Long-term ultraviolet light exposure

HOW IT IS DIAGNOSED
Skin examination; dermoscopy or biopsy when uncertain

MAIN TREATMENT
Sun protection, fading creams, or skin procedures

CAN IT BE CURED?
Sometimes - individual spots can be removed

IS IT AN EMERGENCY?
No - changing spots need prompt assessment

LONG-TERM OUTLOOK
Harmless, often persistent, with new spots possible

Overview

Liver spots are flat, brown or gray-brown marks that usually develop on skin exposed to the sun. Their medical name is solar lentigines . A single mark is called a solar lentigo.

Despite the name, liver spots have nothing to do with the liver or liver disease. The name comes from their color. They are also commonly called age spots or sun spots.

Liver spots are a harmless change in skin pigment. They often appear on the face, backs of the hands, forearms, shoulders, upper chest, and other areas that have received repeated ultraviolet, or UV, exposure. UV radiation comes from sunlight and tanning devices.

The spots matter mainly because some skin cancers can resemble them. A stable liver spot is not cancerous, but a new or changing mark should not automatically be assumed to be a liver

spot. A healthcare professional can examine a spot when its identity is uncertain.

Treatment is not medically necessary for a confirmed liver spot. Some people choose treatment because they do not like its appearance. Treatment can fade or remove an individual spot, but it cannot erase all previous sun damage or prevent every new spot.

Symptoms

Liver spots are usually:

They may appear alone or in groups. Several spots can join together, creating a larger patch of darker skin. They are usually more noticeable on areas that receive frequent sun exposure.

Unlike many freckles, liver spots tend not to fade much during winter. They may slowly become darker or more numerous over the years.

A typical liver spot does not bleed, crust, form an open sore, or cause pain. These symptoms can have many causes, but they are reasons to arrange a medical assessment rather than assuming the mark is harmless.

- Flat rather than raised
- Tan, brown, dark brown, or gray-brown
- Round, oval, or irregular in shape
- Clearly separated from the surrounding skin
- Painless and not itchy

Causes and risk factors

Liver spots develop after repeated exposure to UV radiation. UV light stimulates the skin to make melanin, the pigment that gives skin its color. Over time, pigment-producing cells can become more active in particular areas, causing lasting flat spots.

They are associated with cumulative exposure, meaning the UV exposure that builds up over years. Age itself is not the direct cause, although the spots become more common and noticeable as the effects of past exposure accumulate.

Factors that make liver spots more likely include:

People of any skin tone can develop solar lentigines. Their color and contrast with the surrounding skin may differ across skin tones.

Liver spots are not caused by an infection, poor hygiene, food, or a problem with the liver. They

are not contagious.

- Regular exposure to sunlight
- Past sunburns or extensive unprotected sun exposure
- Use of tanning beds or sunlamps
- Having skin that burns easily
- An individual or family tendency to develop pigmented spots

Diagnosis

A healthcare professional can often identify a liver spot by looking at it and asking how long it has been present. They may examine the rest of your sun-exposed skin as well.

A clinician may use a dermatoscope , a handheld magnifying device with a light. It allows pigment patterns and other structures beneath the skin surface to be seen more clearly. This can help distinguish a liver spot from a mole, a harmless scaly growth, or a possible skin cancer.

If the appearance is unusual or the diagnosis remains uncertain, a skin biopsy may be recommended. During a biopsy, a small sample or the entire spot is removed after the area is numbed. A laboratory then examines the tissue under a microscope.

Blood tests and liver tests do not diagnose liver spots. Photographs may be useful for monitoring a spot over time, but a photograph or phone app cannot confirm the diagnosis.

Treatment and management

A confirmed liver spot does not need treatment. Sun protection can help limit further darkening and reduce the chance of new spots, but it usually does not make an established spot disappear.

Cosmetic camouflage, such as concealer, is the least invasive option. If you want a spot faded or removed, a dermatologist can explain which approaches are suitable for its location, color, and your skin tone.

Possible treatments include:

Improvement may be gradual, and more than one treatment session may be needed. No treatment guarantees complete removal. A treated spot can return, and unrelated new spots can develop elsewhere.

Possible side effects include irritation, blistering, scarring, or skin becoming lighter or darker

than the surrounding area. Lasting pigment changes may be especially noticeable in darker skin tones. Experience in treating your skin type is therefore important when choosing a procedure.

Avoid scraping, burning, or applying strong acids to a spot yourself. These methods can injure the skin and may delay the diagnosis of a mark that is not actually a liver spot.

Skin-lightening products bought online may contain undeclared or unsafe ingredients. Regulations differ between countries. In the United States, the Food and Drug Administration states that over-the-counter hydroquinone skin-lightening products are not approved and warns against products containing mercury. A pharmacist or dermatologist can help you check a product before use.

- Prescription fading creams: These reduce pigment production or speed skin-cell turnover. Hydroquinone and retinoid medicines are examples used in some settings.
- Cryotherapy: Liquid nitrogen freezes the pigmented area so it can heal with less visible pigment.
- Laser or intense pulsed light treatment: Concentrated light targets pigment within the spot.
- Chemical peels: A chemical solution removes controlled layers of surface skin.
- Other resurfacing procedures: These remove or renew part of the outer skin layer.

Complications

Liver spots themselves usually cause no physical complications. They are benign, meaning non-cancerous, and they are not considered a precancerous growth.

The main medical concern is mistaken identity. Melanoma and other skin cancers can sometimes look like an age spot, particularly early on. A changing mark or one that looks different from your other spots needs professional assessment.

Treatment can also cause complications. These include inflammation, infection, scarring, and either excess pigment or loss of pigment. Picking at healing skin can increase these risks.

Some people feel self-conscious about visible spots. This is a valid reason to discuss cosmetic options, although treatment is a personal choice rather than a medical requirement.

Prevention

It is not always possible to prevent liver spots completely. Past UV exposure, natural skin

characteristics, and aging all influence whether they develop. However, reducing UV exposure can lower the chance of new spots and help stop existing ones from darkening.

Helpful measures include:

Sunscreen should not be used as a way to extend time in strong sun. Combining it with shade and clothing gives broader protection.

These measures also reduce other effects of UV exposure, including sunburn, early skin aging, and skin cancer risk. They will not usually remove liver spots that are already present.

- Seeking shade when sunlight is strong
- Wearing a hat, long sleeves, and other protective clothing
- Using broad-spectrum, water-resistant sunscreen with SPF 30 or higher
- Applying sunscreen generously to exposed skin
- Reapplying after swimming, sweating, and at least every two hours outdoors
- Avoiding tanning beds and sunlamps

Living with it and what to expect

Liver spots generally remain for months or years unless they are treated. They may slowly darken, enlarge, or increase in number as UV exposure continues. They do not usually cause pain or affect physical health.

Once a mark has been confirmed as a liver spot, it does not normally require repeated medical visits. You can include it in your regular skin checks and watch for changes. Taking a clear photograph with the date may make slow changes easier to notice.

Treatment may lighten an individual spot, but results are not always permanent. Continued UV exposure can darken the treated area or lead to new spots. Sun protection remains useful after treatment and may also reduce treatment-related pigment changes.

Most people live normally with liver spots and need no medical care for them. Some accept the spots as a natural sign of cumulative sun exposure, while others use camouflage or choose cosmetic treatment. Either approach is reasonable once the diagnosis is clear.

When to get medical help

Arrange a routine appointment if you are unsure whether a mark is a liver spot, want advice about removal, or have many pigmented spots that are difficult to monitor.

Seek a prompt medical assessment if a spot:

These changes do not necessarily mean skin cancer, but they should be examined rather than treated at home.

A liver spot is not an emergency. After a cosmetic procedure, contact the treating service promptly for increasing redness, warmth, swelling, pus, worsening pain, or fever. Emergency care is appropriate for an uncommon severe allergic reaction, such as difficulty breathing or swelling of the tongue or throat.

- Is new and looks different from your other marks
- Changes in size, shape, color, or height
- Develops an uneven border or several colors
- Becomes painful, itchy, crusted, or repeatedly bleeds
- Forms a sore that does not heal
- Returns or changes after treatment

Common questions

Are liver spots caused by liver problems?

No. Liver spots are caused mainly by long-term UV exposure and changes in skin pigment. They do not indicate liver disease, and liver tests are not needed to diagnose them.

Can liver spots turn into skin cancer?

A confirmed solar lentigo is benign and does not itself turn into melanoma. However, melanoma can sometimes resemble a liver spot. Any mark that changes, bleeds, develops several colors, or looks unlike your other spots should be assessed.

Do liver spots go away on their own?

They usually persist and do not fade seasonally as much as freckles. They may be lightened or removed with creams or procedures, but results differ and new spots can appear later.

What is the difference between a freckle and a liver spot?

Freckles often begin in childhood, become darker after sun exposure, and fade when sun exposure decreases. Liver spots are more persistent, usually develop after years of UV exposure, and may be larger or more clearly defined.

Can I remove liver spots at home?

Non-prescription products may offer limited fading, but home acids, freezing products,

scraping, and unverified lightening creams can cause burns, scars, or pigment changes. More importantly, treating an undiagnosed mark can delay assessment of skin cancer. Have uncertain or changing marks examined before trying to remove them.

Will sunscreen get rid of liver spots?

No. Sunscreen does not usually remove existing spots. It can help prevent them from becoming darker, limit new UV damage, and reduce the likelihood of additional spots developing.

Sources

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