CONDITION

Erythrasma

Erythrasma is a superficial bacterial skin condition that causes discoloured patches, usually in warm, moist skin folds.

WHAT IT IS
Superficial bacterial overgrowth in warm, moist skin folds

BODY SYSTEM
Skin

MAIN SYMPTOMS
Brown-red patches, fine scaling, mild itching, little discomfort

WHAT CAUSES IT
Bacterial overgrowth, usually Corynebacterium minutissimum

HOW IT IS DIAGNOSED
Wood lamp fluorescence, sometimes microscopy or culture

MAIN TREATMENT
Topical antibacterials and moisture control

CAN IT BE CURED?
Yes, treatment usually clears it

IS IT AN EMERGENCY?
No, routine care is usually appropriate

LONG-TERM OUTLOOK
Good, though recurrence is common

Overview

Erythrasma is a common skin condition caused by an overgrowth of bacteria. It affects the outermost layer of skin and is most often found where skin touches skin, such as the groin, armpits, under the breasts, or between the toes.

The usual cause is a bacterium called Corynebacterium minutissimum . Corynebacteria can normally live on the skin without causing problems. In warm, damp conditions, however, they may multiply and produce a visible patch.

Erythrasma often looks like a fungal infection, including jock itch or athlete's foot. The treatments are different, so identifying the cause matters when a rash persists or keeps returning.

The condition is usually mild. Some people notice itching or discomfort, but others have no symptoms beyond a change in skin colour. Treatment generally clears the active infection, although it can return if moisture and friction continue.

Symptoms

Erythrasma usually begins as a pink, red, or brown patch. Over time, it may become more clearly brown, especially on lighter skin. On darker skin, it may appear reddish-brown, purple-brown, grey, or darker than the surrounding skin.

The patch is often well defined, meaning there is a noticeable border between affected and unaffected skin. Its surface may look smooth or have fine, dry scaling. It does not usually form the raised, ring-shaped edge that is common with some fungal infections.

Symptoms may include:

Common sites include the inner thighs and groin, armpits, the area between or beneath the breasts, the crease between the buttocks, abdominal folds, and spaces between the toes.

Toe-web erythrasma can occur alongside a fungal or other bacterial infection. This may cause more peeling, odour, soggy-looking skin, or cracking than erythrasma alone.

Erythrasma usually develops gradually. Fever, severe pain, rapidly spreading redness, and marked swelling are not typical and need separate medical assessment.

- Discoloured patches in a skin fold
- Fine scaling, wrinkling, or slight cracking
- Mild itching, burning, or tenderness
- Damp, softened skin between the toes
- Little or no physical discomfort

Causes and risk factors

Erythrasma develops when certain skin bacteria multiply within the outer layer of skin. The bacteria make substances called porphyrins. These substances produce a coral-red or pink-red glow under a special ultraviolet light used during diagnosis.

Warmth and trapped moisture make bacterial overgrowth more likely. Friction between skin surfaces may also weaken the skin's protective barrier.

Factors associated with erythrasma include:

Having one of these factors does not mean you will develop erythrasma. It can also occur in people without an obvious risk factor.

Erythrasma is not generally considered highly contagious. The bacteria involved commonly live on human skin, and the condition usually results from local overgrowth rather than catching a new infection from another person.

- Hot or humid conditions
- Heavy sweating
- Tight or non-breathable clothing
- Skin folds that remain damp
- Higher body weight, particularly with deeper skin folds
- Diabetes
- Older age
- Reduced immune function
- Repeated episodes of similar skin-fold irritation

Diagnosis

A healthcare professional can often suspect erythrasma from its appearance and location. Because it can resemble fungal conditions, inverse psoriasis, contact dermatitis, or other skin-fold rashes, an examination may not always be enough.

A Wood lamp is a handheld ultraviolet light used in a darkened room. Erythrasma usually glows coral-red or pink-red under this light because of the porphyrins made by the bacteria. This finding strongly supports the diagnosis.

Washing the area shortly before the examination can remove these substances and cause a false-negative result. Not every affected patch will glow clearly.

If the diagnosis remains uncertain, a small skin scraping may be examined with potassium hydroxide, often called a KOH test. This test looks for fungal elements. A swab or laboratory culture may sometimes be used, particularly when treatment has not worked or another bacterial infection is possible.

Repeated or widespread erythrasma may lead a healthcare professional to consider whether an underlying factor, such as diabetes, could be contributing. Testing is based on your wider symptoms and health history rather than the skin finding alone.

Treatment and management

Treatment aims to remove the bacterial overgrowth, settle irritation, and reduce the damp conditions that encourage recurrence.

A limited area is usually treated with a topical antibacterial medicine applied to the skin. Options may include antibiotic like amoxicillin or doxycycline creams or solutions, antibacterial washes, or products containing benzoyl peroxide. The available products differ between countries, and the best choice can be affected by allergies, skin sensitivity, and previous treatment.

Larger, persistent, or frequently recurring areas may be treated with an oral antibiotic. These medicines can interact with other drugs and cause side effects, so they require an individual medical assessment. Antibiotic use should be limited to an appropriate course to reduce unnecessary exposure and antibiotic resistance.

General skin care is also important:

A cool hair dryer setting may help dry hard-to-reach folds. Avoid hot air, which can burn the skin.

Antifungal like fluconazole or terbinafine creams do not treat erythrasma itself. However, a fungal infection can occur at the same time, especially in the groin or between the toes. When both are present, each may need treatment.

The colour change may remain after the bacteria have been cleared. This does not necessarily mean treatment failed. Scaling, active spreading, and fluorescence under a Wood lamp may improve before the skin returns to its usual colour.

- Wash gently and dry the fold thoroughly
- Change out of damp clothing promptly
- Choose loose, breathable clothing when practical
- Use a separate clean towel for affected areas
- Avoid harsh scrubbing, which can increase irritation
- Follow the product instructions for any prescribed or recommended treatment

Complications

Complications are uncommon. The main problem is recurrence, particularly when moisture, sweating, or friction continues.

Persistent irritation can cause small cracks in the skin. These breaks may make it easier for another bacterial or fungal infection to develop. Mixed infections are especially possible between the toes.

Erythrasma can also affect comfort, sleep, exercise, intimacy, or confidence when it involves the groin or another visible or sensitive area.

The condition does not usually scar. Temporary lightening or darkening of the skin may remain after treatment and can take weeks or months to fade.

Rarely, Corynebacterium minutissimum can cause deeper infection in people with major immune system problems. This is not the expected course of ordinary erythrasma.

Prevention

Erythrasma cannot always be prevented. The bacteria can be part of the skin's usual microbial community, and some risk factors cannot be changed.

Reducing prolonged moisture and friction may lower the chance of another episode. Dry skin folds carefully after bathing, swimming, or exercise. Change socks, underwear, and sweaty clothing regularly. Breathable fabrics and well-fitting shoes may help when heat or sweating is a problem.

If you have diabetes, following your existing care plan may reduce skin complications associated with high blood sugar. Erythrasma does not mean that you have diabetes, and it should not be used to diagnose it.

Do not apply strong antiseptics, bleach, or irritating home remedies to skin folds. These can damage the skin barrier and worsen discomfort.

Some people with frequent recurrences may be advised to use an antibacterial wash or another preventive skin-care product. This should be chosen with professional advice because repeated use can irritate the skin and may not be suitable for everyone.

Living with it and what to expect

Erythrasma is usually a short-term, treatable condition. With suitable treatment, scaling and irritation often improve before the remaining colour change disappears.

It may return over months or years, particularly during hot weather or periods of increased sweating. Recurrence does not necessarily mean that the original treatment was used incorrectly. It may reflect the same skin conditions allowing the bacteria to multiply again.

Most people can continue their usual work, exercise, and social activities. Keeping the area dry and reducing rubbing may make movement more comfortable while the skin settles.

Erythrasma does not usually damage deeper tissue or lead to long-term health problems. Persistent pigment changes can last longer than the infection, especially in darker skin tones, but they generally do not represent ongoing harm.

If patches repeatedly return in the same place, reconsidering the diagnosis can be useful. A fungal infection, psoriasis, dermatitis, or a combination of conditions may look similar.

When to get medical help

Arrange routine medical advice if a skin-fold rash does not improve with basic care, keeps returning, or has not responded to an over-the-counter antifungal treatment. Assessment is also useful if you are unsure what the rash is, since several conditions have a similar appearance.

Seek prompt medical advice if the area becomes increasingly painful, develops pus or open sores, spreads despite treatment, or affects a large area. Earlier assessment is sensible if you have diabetes, poor circulation, or a weakened immune system.

Seek urgent or emergency care for rapidly spreading redness with fever, severe pain, major swelling, blistering, purple or black skin, confusion, faintness, or difficulty breathing. These are not usual signs of erythrasma and may indicate a different, more serious problem.

Common questions

Is erythrasma a fungal infection?

No. Erythrasma is caused by bacterial overgrowth. It can look like jock itch or athlete's foot, which are fungal infections. A person can also have both conditions at once.

Is erythrasma contagious?

It is not generally considered highly contagious. The bacteria commonly live on skin, and erythrasma usually develops when warmth and moisture allow them to multiply. Avoid sharing towels while a rash is active because another infection may be present.

Will erythrasma go away by itself?

A mild patch may sometimes settle if the area becomes cooler and drier, but erythrasma can persist without antibacterial treatment. Medical assessment is reasonable when a patch lasts, spreads, causes discomfort, or has an uncertain cause.

How can I tell erythrasma from jock itch?

Erythrasma tends to form a flat, brown-red patch with fine scale. Jock itch often has a more raised, scaly border and may be itchier. Appearance alone is not always reliable. Coral-red fluorescence under a Wood lamp supports erythrasma, while a skin scraping can help identify fungus.

Why does erythrasma glow coral red?

The bacteria produce chemicals called porphyrins. Under a Wood lamp, these chemicals can glow coral red or pink-red. Recent washing may remove them temporarily, so a patch does not always glow.

Can erythrasma come back after treatment?

Yes. Treatment can clear the bacterial overgrowth, but it does not permanently change sweating, friction, or the shape of skin folds. Keeping the area dry and managing contributing health factors may reduce recurrence.

Sources

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