CONDITION

Erythema multiforme

Erythema multiforme is an immune-related skin reaction that causes distinctive target-shaped spots, sometimes with painful mouth or eye sores.

WHAT IT IS
Short-lived immune reaction affecting skin and sometimes moist surfaces

BODY SYSTEM
Skin and immune system

MAIN SYMPTOMS
Target-shaped spots, itching or burning, blisters, mouth sores

WHAT CAUSES IT
Usually infection, especially herpes simplex; sometimes medicines

HOW IT IS DIAGNOSED
Clinical examination; skin biopsy when uncertain

MAIN TREATMENT
Symptom relief and management of the trigger

CAN IT BE CURED?
Sometimes - single episodes usually clear completely

IS IT AN EMERGENCY?
Sometimes - breathing, eyesight, or hydration problems

LONG-TERM OUTLOOK
Usually clears, though repeated episodes may continue for years

Overview

Erythema multiforme is a sudden immune reaction that mainly affects the skin. It causes round, red marks with rings of different colours, called "target" or "iris" lesions because they can resemble a bull's-eye.

The most common trigger is an infection, particularly herpes simplex virus, which causes cold sores and genital herpes. Less often, the reaction follows another infection or is associated with a medicine.

Many cases affect only the skin and clear within a few weeks. This is sometimes called erythema multiforme minor. More severe cases cause painful sores on mucous membranes, including the lips, mouth, eyes, genitals, or anus.

Erythema multiforme is different from Stevens-Johnson syndrome and toxic epidermal necrolysis, which usually cause more widespread skin pain, blistering, peeling, and illness. Because early appearances may overlap, a new painful or blistering rash needs medical assessment.

The skin reaction is not contagious, although an infection that triggered it may spread to other people.

Symptoms

The rash usually appears over several days. It often starts on the backs of the hands or tops of the feet and spreads towards the arms, legs, face, or body. Both sides are commonly affected in a similar pattern.

Typical features include:

Not every lesion forms a perfect target. Red patches, small blisters, or raised bumps may appear alongside typical target lesions.

Mouth involvement can cause swollen, crusted lips and painful raw areas inside the mouth, making eating, drinking, or brushing difficult. Eye involvement may cause redness, pain, discharge, light sensitivity, or blurred vision. Genital sores can make passing urine painful, while sores around the anus may hurt during bowel movements.

Fever, tiredness, headache, joint aches, cough, or sore throat may occur, particularly when infection is present. Unlike hives, which usually move or fade within 24 hours, erythema multiforme lesions remain fixed for days.

- Round, raised spots with two or three colour zones
- A darker, dusky, or blistered centre surrounded by paler and red rings
- Itching, burning, tenderness, or mild swelling
- Lesions that stay in the same place for several days

Causes and risk factors

Erythema multiforme develops when the immune system reacts to a trigger, causing inflammation in the skin or mucous membranes.

Herpes simplex virus is the best-established trigger. The rash may appear days after a cold sore or genital herpes outbreak, although the infection can be mild or unnoticed. Repeated

herpes reactivation may cause recurrent erythema multiforme.

Other infections are sometimes responsible. Respiratory infections can cause severe mouth, eye, or genital inflammation with little skin rash. Some experts classify these cases separately as reactive infectious mucocutaneous eruption, or RIME.

Medicines are a less common trigger. Reported associations include some antibiotics like amoxicillin or doxycycline , anti-inflammatory medicines, and seizure medicines. Do not stop a medicine solely because a rash appears unless a healthcare professional advises you to, except when directed by emergency services. Suddenly stopping an important medicine can also cause harm.

Sometimes no trigger is identified. Having had erythema multiforme before increases the chance of another episode, especially when herpes simplex is involved.

Diagnosis

A healthcare professional can often diagnose erythema multiforme by examining the rash and asking how it developed. Its location, target-like pattern, and fixed lesions help distinguish it from hives and other rashes.

You may be asked about recent cold sores, genital herpes, cough, fever, infections, vaccinations, and all medicines used during the previous several weeks, including non-prescription products.

No single blood test confirms erythema multiforme, but tests may look for infection or another cause. If the appearance is unusual or uncertain, a small skin sample may be removed under local anaesthetic for a biopsy. This can support the diagnosis and rule out other blistering conditions.

Eye symptoms require urgent assessment and may need examination by an eye specialist. Severe mouth or genital involvement may also require specialist care.

Treatment and management

Mild erythema multiforme often clears without specific treatment. Management focuses on comfort while the skin heals.

Cool compresses, fragrance-free moisturisers, and gentle skin care may reduce irritation. A healthcare professional may recommend an antihistamine like cetirizine or loratadine for itching, a corticosteroid cream for inflammation, or pain relief.

For mouth involvement, soothing rinses, protective products, or a local corticosteroid like prednisone or hydrocortisone may help. Soft, bland foods and cool drinks are usually easier to tolerate than spicy, acidic, salty, or very hot items. Maintaining fluid intake is especially important.

Leave blisters intact when possible. If one opens, gently clean it and cover it with a non-stick dressing. Scratching or removing loose skin can delay healing.

Any suspected trigger is assessed separately. An infection may need treatment when clinically appropriate. If a medicine is suspected, a healthcare professional will decide whether it should be stopped and record the reaction.

People with recurrent herpes-associated episodes may be offered ongoing antiviral treatment. This can reduce recurrences but is not an immediate cure, and episodes may return after treatment stops.

Oral or injected corticosteroids are sometimes considered for severe mucosal disease, although their benefits are uncertain and they can cause significant side effects. Specialist input is generally needed.

Hospital care may be required if pain prevents drinking, the eyes are significantly affected, or a more serious blistering condition is possible. Treatment may include fluids, pain relief, wound care, nutritional support, and specialist skin or eye care.

Complications

Most skin lesions heal without permanent scarring. Temporary darker, grey, or lighter patches may remain, particularly in darker skin tones, and can take months to fade.

Painful mouth sores may lead to dehydration or reduced food intake. Genital inflammation can cause severe discomfort or difficulty passing urine.

Eye inflammation can occasionally damage the eye's surface. Persistent pain, light sensitivity, or vision changes need urgent assessment.

Open blisters can develop bacterial infection. Increasing warmth, swelling, pus, worsening pain, or a new fever are warning signs.

Repeated episodes may disrupt work, school, sleep, eating, and emotional wellbeing even when each episode clears.

Prevention

A first episode often cannot be prevented because its trigger may be unnoticed or never identified.

If herpes simplex repeatedly triggers erythema multiforme, preventive antiviral treatment may reduce episodes. It does not remove herpes simplex from the body or prevent every recurrence.

Keep a record of infections, cold sores, medicines, and other events before each episode. Photographs taken as the rash develops may help identify a pattern.

If a medicine is judged to be the likely cause, ensure its name is recorded in your medical and pharmacy records. Do not restart it unless a clinician familiar with the reaction says it is safe.

Handwashing and avoiding direct contact with active cold sores may reduce exposure to infection but cannot guarantee prevention.

Living with it and what to expect

A single episode usually develops over several days and clears within two to four weeks. Mouth or eye symptoms may take longer to settle, while tiredness and skin colour changes can continue after the active inflammation ends.

Most people return to usual activities once pain, fever, and open sores improve. Time away from work or school may be needed if walking, using your hands, eating, or speaking is uncomfortable.

Recurrences may happen months apart or cluster around herpes outbreaks. Some people have only one episode; others experience episodes for several years.

Erythema multiforme does not usually cause damage between episodes, but recurrent mouth or eye involvement can have a major practical effect. Dermatology follow-up may help identify the trigger and guide preventive treatment.

Arrange follow-up if the rash is not clearly improving within a few weeks, keeps returning, or leaves persistent symptoms. Bring photographs and a list of recently used medicines.

When to get medical help

Seek prompt medical assessment for a new target-shaped, painful, or blistering rash, especially if you recently started a medicine or have sores in your mouth, eyes, or genital area.

Contact a healthcare service the same day if:

Call emergency services or go to an emergency department if you have trouble breathing,

airway swelling, fainting, confusion, severe weakness, or signs of serious dehydration. Very little urine, marked dizziness, or being unable to keep fluids down can indicate dehydration.

Emergency assessment is also appropriate for widespread blistering or peeling, severe eye pain, sudden vision changes, or extensive painful sores accompanied by significant illness. These features may indicate severe erythema multiforme or another condition requiring urgent treatment.

- Mouth pain makes eating or drinking difficult
- Your eyes are red, painful, light-sensitive, or producing discharge
- Passing urine is painful or difficult
- The rash is spreading quickly or your skin is becoming painful
- You develop fever, pus, increasing swelling, or worsening redness

Common questions

Is erythema multiforme contagious?

No. The skin reaction cannot spread between people. However, a triggering infection may be contagious. Herpes simplex, for example, can spread through direct contact.

Is erythema multiforme the same as Stevens-Johnson syndrome?

No. They are considered separate conditions. Erythema multiforme usually causes raised target lesions, often on the hands and feet. Stevens-Johnson syndrome more often causes widespread painful flat areas, blisters, peeling, and significant illness. Medical assessment is important because early rashes may look similar.

How long does erythema multiforme last?

Many episodes clear within two to four weeks. Healing can take longer when the mouth, eyes, or genitals are affected. Skin colour changes may remain for months without meaning the condition is still active.

Can erythema multiforme come back?

Yes. Recurrence is most strongly associated with herpes simplex, even when there is no obvious cold sore. Preventive antiviral treatment may be considered for frequent or disruptive episodes.

Does erythema multiforme leave scars?

Typical lesions usually heal without scars. Temporary darker or lighter marks are more common. Deep blisters, infection, or severe mucous membrane damage can occasionally

cause scarring.

Can I go to work or school with it?

This depends on your symptoms and whether the triggering infection is contagious. The rash itself does not spread to others. Pain, fever, open sores, or difficulty using your hands and feet may make rest necessary.

Sources

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