



ERYTHEMA MULTIFORME

What are the aims of this leaflet?

This leaflet has been written to help you understand more about erythema multiforme. It tells you what it is, what causes it, what can be done about it, and where you can find out more about it.

What is erythema multiforme?

Erythema multiforme (EM) is a hypersensitivity reaction which tends to develop abruptly. Usually it will disappear on its own, but sometimes treatment may be required for the symptoms. It occurs in all racial groups and is predominantly observed in young adults (20-40 years), but can occur in any age group. The condition is slightly more common in men.

Erythema multiforme is characterised by the sudden development of few to hundreds of red papules (spots). The papules usually begin over the back of the feet and hands, and spread upwards towards the trunk. The face is often involved. The hands and arms are more commonly affected than the feet and legs. Over time these papules evolve to plaques (raised patches) and then typical target shaped lesions. These target lesions have a dusky red centre, a paler area around this, and then a dark red ring round the edge. Sometimes the centre of the target can be crusted or blistered. The targets can be different shapes and sizes, hence the latin name: *erythema* (redness) *multi* (many), *forme* (shapes).

Erythema multiforme is usually mild - 'erythema multiforme minor' – with only skin involvement, causing little trouble and clearing quickly. There is also a rare but more severe type, 'erythema multiforme major', which has similar skin features to EM minor, but additionally there is involvement of one or more mucosal membrane (e.g. the lips, the inside of the mouth, the windpipe, the gullet, the anus or genital area, and the eyes) and usually some associated symptoms, such as fever or joint pain.

What causes erythema multiforme?

The cause of erythema multiforme is not fully understood. It is most likely a skin-directed immune reaction which occurs following exposure to a trigger in certain 'predisposed' individuals.

The most common triggers are infection, in around 90% of cases, and medications in less than 10% of cases.

- The most commonly associated infection is herpes simplex virus (the cold sore virus). An uncommon bacterial infection called mycoplasma pneumoniae is the most common bacterial trigger to have been identified. Many other viral, bacterial and fungal infections have been implicated.
- Medications are an uncommon trigger of erythema multiforme. When medications are the trigger it is more likely that an individual will develop erythema multiforme major. Drugs which have been identified as precipitating EM include non-steroidal anti-inflammatory drugs (given for joint and muscle pain), antibiotics and anticonvulsants (used to treat epilepsy).

Is erythema multiforme hereditary?

No.

What are the symptoms of erythema multiforme?

The symptoms will vary with the severity of the rash. If it is mild, you may feel perfectly well, and your rash may be asymptomatic or associated with a mild itch or burning sensation.

If your erythema multiforme is more severe (erythema multiforme major), you may have a fever and a headache, and feel unwell for a few days before the rash appears. Blisters on your skin may rupture and leave painful raw areas. If your eyes are affected, you may become sensitive to light and notice blurring of your vision. Raw areas inside the mouth can make it hard to eat and drink. Genital soreness can interfere with passing urine.

What does erythema multiforme look like?

In erythema multiforme minor:

- The spots usually develop over the course of 3 - 4 days, starting on the hands and feet, and then spreading up the limbs to the trunk and face.
- At first the spots are small, round, slightly raised red areas, some of which turn into the 'target lesions' described above. These are 1 - 3 cm (0.3 - 1 inches)

across, but may fuse together to produce larger areas. Small blisters form in the centre of some of the targets.

- The rash usually fades over 2 - 4 weeks.
- There are usually no complications from this type of erythema multiforme.
- Recurrences are common in some individuals, especially where herpes simplex virus is the trigger.

In erythema multiforme major:

- You may feel ill and have a high temperature.
- The spots are usually larger, and run into each other more than those of erythema multiforme minor. 'Target lesions' can usually still be seen.
- Large blisters may form, and then burst to leave red oozing areas.
- Your lips may be covered with crusts, large raw areas may appear inside your mouth, and your eyes may swell up and turn red.
- Complications are rare and are mainly from scars of the mucous membranes in the mouth or the eyes.

How is erythema multiforme diagnosed?

There are no specific blood tests for erythema multiforme. The diagnosis is usually made by identifying the characteristic rash on the skin and a story of recent exposure to one of the known triggers discussed above. Occasionally it is necessary to do a skin biopsy (to remove a small sample of skin under a local anaesthetic) to confirm the diagnosis under the microscope and exclude other possibilities.

Can erythema multiforme be cured?

Most patients with erythema multiforme recover completely; however, there can be a risk of further attacks, particularly following cold sores.

How can erythema multiforme be treated?

Your doctor will look for known triggers for the skin condition. If a particular medication is suspected, it must be stopped straight away. If an infectious cause is identified then treatment specifically for this (where it exists) should be given.

The treatment will then depend on the severity and symptoms of the erythema multiforme:

- **Mild rashes** will clear up in a few weeks spontaneously, though moisturisers and topical corticosteroids can be given to hasten recovery and reduce symptoms of itch or burn.

- **Severe rashes** can be life threatening. Patients may need to be nursed in hospital, occasionally in a burns unit, using dressings like those needed for an extensive burn. The pain from the raw areas can be severe and regular pain control may be required. The oozing areas can leak large amounts of fluid and this will be monitored and replaced with intravenous fluid through a drip if oral intake is inadequate due to mouth sores. In the absence of infection, oral corticosteroids are sometimes given in the early stages of the eruption. Antibiotics help if the damaged skin is infected. An eye specialist may be needed if the eyes are severely affected.
- **Recurrent attacks** may be a problem. If they always follow a cold sore and come up several times a year, then it may be worth taking a small daily dose of a drug which is designed to suppress the [herpes simplex](#) virus (the virus responsible for cold sores) for several months.

Self care (What can I do?)

- If you have had one attack of erythema multiforme, remember there is a risk that you will have another.
- If a medication was suspected to be the trigger, it is vital that this is avoided in the future.
- If your attacks follow cold sores, you may want to ask your doctor about taking antiviral tablets long-term.

Where can I get more information about erythema multiforme?

Web links to detailed leaflets:

<http://dermnetnz.org/reactions/erythema-multiforme.html>

If relevant, the British Association of Dermatologists also has a separate patient information leaflet on [herpes simplex](#).

For details of source materials used please contact the Clinical Standards Unit (clinicalstandards@bad.org.uk).

This leaflet aims to provide accurate information about the subject and is a consensus of the views held by representatives of the British Association of Dermatologists: individual patient circumstances may differ, which might alter both the advice and course of therapy given to you by your doctor.

This leaflet has been assessed for readability by the British Association of Dermatologists' Patient Information Lay Review Panel

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