



EUROPEAN ACADEMY OF
DERMATOLOGY AND VENEREOLOGY

Information Leaflet for Patients

ERYTHEMA NODOSUM

The aim of this leaflet

This leaflet is designed to help you understand more about erythema nodosum. It tells you what this condition is, what causes it, and what can be done for treatment.

ERYTHEMA NODOSUM

What is erythema nodosum?

Erythema nodosum is a skin disorder characterized by the presence of red, painful *nodules* (lumps) that appear most frequently on the shins and around the ankles, but can also be located on the thighs, forearms, or trunk.

What causes erythema nodosum?

In two-thirds of cases, a trigger of *erythema nodosum* can be identified, or *erythema nodosum* may be a sign of an underlying systemic condition that needs to be identified.

The most common causes of *erythema nodosum*, if diagnosed, are:

- upper respiratory tract infection, most frequently with a bacteria called *Streptococcus*
- medication-induced allergic reactions: most frequently contraceptive pills and some antibiotics
- *sarcoidosis* (a systemic inflammatory disease which can affect all organs, but most commonly affects the lungs, lymphatic glands, and skin)
- *inflammatory bowel disease*: most frequently patients with Crohn's disease, but it can also occur in patients with *ulcerative colitis*
- other causes: solid tumours, *lymphomas*, *tuberculosis*.

In one-third of cases, no cause is identified, so the *erythema nodosum* is called "idiopathic."

Who is affected and what are the characteristics of erythema nodosum?

Erythema nodosum may occur at any age and in both men and women of all races, but it is slightly more common in women and in the age group of 20-30 years. The *nodules* can heal, leaving a bruise-like appearance of the skin that eventually resolves without scar formation.

What are the signs and symptoms of erythema nodosum?

Erythema nodosum is characterised by bilateral red, painful *nodules* located mainly on the shins. Apart from skin changes, this disease can be accompanied by general symptoms like joint pain and swelling, fever, and a general feeling of illness (that are not necessarily related to a co-existing disease) or some other symptoms like cough, hoarseness, or diarrhoea (clues of an associated disease).

How is it diagnosed?

Usually, the diagnosis of *erythema nodosum* is made by a clinician examining the patient and recognising the *nodules* located on typical skin sites. In some cases, a skin biopsy is necessary in order to confirm the diagnosis, which involves the removal of a small skin sample under local anaesthesia, which will be further examined under a microscope by a pathologist. Some other investigations, such as blood tests and a chest x-ray, may be necessary in order to determine the underlying cause of *erythema nodosum*.

How does erythema nodosum evolve?

The *nodules* that characterize *erythema nodosum* usually last days or weeks, and then they slowly regress. First, as the redness slowly disappears, a green-yellowish bruise-like discolouration appears, so that the skin will eventually heal without scarring. Most patients fully recover within a few weeks or (rarely) months. However, in some cases, new *nodules* may reappear over a few weeks, with the condition persisting even 6 months or longer.

How is it treated?

First of all, your clinician needs to check any possible underlying cause of *erythema nodosum* and treat it (e.g. treatment of a certain infectious cause or stopping a certain medication).

In most patients, the *nodules* heal spontaneously, but in some cases, bed rest, leg elevation, and painkillers (such as non-steroidal anti-inflammatory agents) can speed up the healing process. Also, potassium iodide solution can be used in the cases in which no underlying cause of *erythema nodosum* is identified. In *refractory* (unresponsive) or relapsing cases, corticosteroids or colchicine can be used. All treatments should be performed under the guidance of experienced, specialised clinicians.

How can I prevent the development of erythema nodosum?

You should seek medical advice by seeing your general physician at the first signs and symptoms of a systemic disease, which may be associated with the development of *erythema nodosum*.

What can I do if I am diagnosed with it?

There are not many significant things you can do to influence the natural course of *erythema nodosum*. In some cases, leg elevation, bed rest, and avoidance of prolonged standing and walking may be helpful. ■