

Granuloma annulare

What is granuloma annulare?

Granuloma annulare is a harmless skin condition. Localised granuloma annulare more commonly occurs over bony prominences. Although it commonly resolves on its own within a few months to few years, most people seek treatment at an earlier stage for cosmetic reasons or because of skin irritation associated with the condition.

Granuloma annulare occurs in all ages but is more common in people under the age of 30. It is rare in infancy. Females are twice as likely to be affected as males.

What causes granuloma annulare?

The cause of granuloma annulare is unknown but it is likely to be a reaction to different triggering events. It is believed to result from a delayed hypersensitivity reaction to collagen within the skin, which causes granulomatous inflammation (collection of inflammatory cells known as macrophages).

There have been a number of reported triggering events. These include mild non-specific trauma (such as animal or insect bites, tattoos, waxing-induced pseudofolliculitis, herpes zoster or chickenpox scars), infections (such as HIV, Epstein-Barr Virus, hepatitis B & C), medications (gold, allopurinol, diclofenac, quinidine, intranasal calcitonin, amlodipine), sun exposure or PUVA light therapy, vaccinations and Mantoux testing for tuberculosis. Familial cases have also been reported.

What does granuloma annulare look like?

The most common form is localised granuloma annulare, characterised by groups of skin coloured or red bumps or raised area of skin, often arranged in a ring shape. It is usually localised to one body site but it can be more widespread in 15% of cases. It most commonly affects the hands and arms (60%), legs and feet (20%), both upper and lower limbs (7%), trunk (5%) and least frequently the trunk plus other areas (5%).

There are other less common forms of granuloma annulare:

- **Generalised granuloma annulare** (8-15% of cases). Adults are more commonly affected. It is characterised by widespread small bumps or discoloured patches of skin, with a tendency to present on the trunk.
- **Subcutaneous granuloma annulare** is rare. It is more commonly seen in children. They present as firm to hard lumps on the scalp margins, fingertips and shins.
- **Perforating granuloma annulare** (5% of cases) is characterised by bumps with central pits, which can become crusty, pustular, ulcerate and cause scarring. The back of hands and fingers are most commonly affected.
- The **macular patch type** presents with reddish brown or purple areas without the annular (ring-like) rim and is most common in adult women.

Granuloma annulare does not usually have any other symptoms but some people experience pain or mild itch.

What other problems can occur with granuloma annulare?

Localised granuloma annulare is sometimes associated with autoimmune thyroiditis. Generalised granuloma annulare may rarely be associated with diabetes mellitus, malignancy or autoimmune diseases and HIV infection.

How is granuloma annulare diagnosed?

Localised disease is usually diagnosed by a clinical examination alone. Generalised or subcutaneous disease is more difficult to diagnose and may require a skin biopsy. In some cases, it may be important to rule out an underlying cause such as infection, metabolic disease or malignancy.

How is granuloma annulare treated?

Most cases do not require treatment as there is a high tendency for the lesions to resolve spontaneously.

Some people request treatment for aesthetic reasons. Treatment options include topical corticosteroids and intralesional corticosteroids.

For more extensive or severe forms of the condition, treatments may include oral medications (such as steroids, isotretinoin and dapsone) and phototherapy (light treatment).

What is the likely outcome of granuloma annulare?

Most cases resolve spontaneously and do not cause any complications. However, the condition may recur months or years later at the same site.

Localised disease usually resolves in a few months to few years, whilst generalised disease can take years to clear. Most heal without scarring. However, perforating granuloma annulare can result in scarring.