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Rosacea

Rosacea is a red facial rash that most often affects those aged 30 to 60, especially those with fair skin, blue eyes and of Celtic origin. It may be transient, recurrent or persistent.

What is the cause of rosacea?

The cause of rosacea is unknown. There are several theories regarding the origin of overactive facial blood vessels and inflammation, including genetic, environmental, vascular, inflammatory factors.

Hair follicle mites ([Demodex folliculorum](#)) may be involved in at least some cases, as these are found in greater numbers within rosacea papules.

An increased incidence of rosacea has been reported in those who carry the stomach bacterium, *Helicobacter pylori*, but most dermatologists do not believe it to be the cause of rosacea.

Rosacea may be aggravated by facial creams or oils, and especially by [topical steroids](#).

Clinical features

Rosacea used to be called 'acne rosacea' but it is quite different from [acne](#). There are red spots (papules) and sometimes pustules in both conditions, but in rosacea they are dome-shaped rather than pointed and there are no blackheads, whiteheads, deep cysts, or lumps. Rosacea may also result in reddened skin, scaling and swelling of affected areas.

Characteristics of rosacea include:

- Red papules and sometimes pustules on the nose, forehead, cheeks and chin. Rarely it involves the trunk and upper limbs.
- Frequent [blushing](#) or [flushing](#)
- A red face due to persistent redness and/or telangiectasia ('broken capillaries')
- Dry and flaky facial skin
- Aggravation by sun exposure and hot and spicy food or drink (anything that reddens the face)
- Sensitive skin: burning and stinging, especially with make-up, sunscreens and other facial creams
- Red, sore or gritty eyelids including papules and styes (blepharitis and/or conjunctivitis)
- Enlarged unshapely nose with prominent pores ([sebaceous hyperplasia](#)) and fibrous thickening (rhinophyma)
- Firm swelling of other facial areas including the eyelids (blepharophyma)

Rosacea



Mild papules and erythema



Moderate papules and early pustules



Severe erythema, papules and pustules



Inflammatory papules and early rhinophyma



Advanced rhinophyma



Telangiectasia

Differential diagnosis

Rosacea may occasionally be confused with or accompanied by other facial rashes including:

- [Acne vulgaris](#)
- [Pyoderma faciale](#)
- [Steroid rosacea](#)
- [Perioral dermatitis](#)
- [Seborrhoeic dermatitis](#)
- [Irritant contact dermatitis](#)

Treatment

General measures

- Where possible, reduce factors causing facial [flushing](#).
- Avoid oil-based facial creams. Use water-based make-up.
- Never apply a [topical steroid](#) to the rosacea.
- Protect yourself from the [sun](#). Use light oil-free facial [sunscreens](#).
- Keep your face cool: minimize your exposure to hot or spicy foods, alcohol, hot showers and baths and warm rooms.

Oral antibiotics

[Tetracycline](#) antibiotics including doxycycline and minocycline reduce inflammation. They reduce the redness, papules, pustules and eye symptoms of rosacea. The antibiotics are usually prescribed for 6 to 12 weeks, the duration and dose depending on the severity of the rosacea. Further courses are often needed from time to time as the antibiotics don't cure the disorder.

Sometimes other [oral antibiotics](#) such as cotrimoxazole or [metronidazole](#) are prescribed for resistant cases.

Topical treatment

[Metronidazole cream or gel](#) can be used intermittently or long term on its own for mild cases and in combination with oral antibiotics for more severe cases.

[Azelaic acid](#) cream or lotion is also effective, applied twice daily to affected areas.

Isotretinoin

When antibiotics are ineffective or poorly tolerated, oral [isotretinoin](#) may be very effective. Although isotretinoin is often curative for acne, it may be needed in low dose long term for rosacea, sometimes for years. It has important side effects and is not suitable for everyone.

Medications to reduce flushing

Certain medications such as clonidine (an alpha₂-receptor agonist) may reduce the vascular dilatation (widening of blood vessels) that results in flushing. Side effects are usually mild but may include low blood pressure, gastrointestinal symptoms, dry eyes, blurred vision and low heart rate.

Anti-inflammatory agents

Oral non-steroidal anti-inflammatory agents such as diclofenac may reduce the discomfort and redness of affected skin. Although these are uncommon, serious potential adverse effects include peptic ulceration, renal toxicity and hypersensitivity reactions.

Calcineurin inhibitors such as tacrolimus ointment and pimecrolimus cream are reported to help some patients with rosacea.

Vascular laser

Persistent telangiectasia can be successfully improved with [vascular laser](#) or intense pulsed light treatment. Where these are unavailable, cauterly, diathermy or sclerotherapy (strong saline injections) may be helpful.

Surgery

Rhinophyma can be treated successfully by reshaping the nose surgically or with carbon dioxide laser by a dermatologic or plastic surgeon.

Related information

On DermNet NZ:

- [Acne and acne-like conditions](#)
- [Steroid rosacea](#)
- [Perioral dermatitis](#)
- [Pyoderma faciale \(rosacea fulminans\)](#)

Other websites:

- [National Rosacea Society](#)
- [RosaceaNet](#) – from the American Academy of Dermatology
- [Rosaceaguide.com](#)
- [Rosacea](#) – emedicine dermatology, the online textbook
- [Rosacea Research & Develoment Institute](#)

Books about skin diseases:

See the [DermNet NZ bookstore](#)

DermNet does not provide an on-line consultation service.

If you have any concerns with your skin or its treatment, see a [dermatologist](#) for advice.

