

## FIVE THINGS TO KNOW ABOUT ...

## Acne

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**Several common skin conditions can mimic acne**

Acne is an inflammatory disorder of pilosebaceous units, with characteristic lesions including open (black) and closed (white) comedones, inflammatory papules, pustules, nodules, cysts and possible scarring (Figure 1).<sup>1</sup> Rosacea, folliculitis and seborrheic dermatitis (particularly around the nose and between the eyebrows) can look like acne. Perioral dermatitis, which can appear after the application of topical steroids, may also be mistaken for acne.



**Figure 1: Cheek with open comedones (blackheads), closed comedones (whiteheads), papules and pustules.**

**Systemic treatments should be considered in cases of moderate-to-severe acne or when topical treatments fail**

Systemic treatments include oral antibiotics (e.g., tetracycline, erythromycin, sulfamethoxazole-trimethoprim), hormonal treatments for women (e.g., combined contraceptives, spironolactone) and isotretinoin.<sup>4,5</sup> Isotretinoin may be considered for moderate-to-severe acne, if there is scarring or if inadequate improvement has been seen with previous therapies. Hormonal treatments in women can be used even in the absence of androgen excess.<sup>5</sup>

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**Most treatments require at least 6 weeks before an improvement is seen**

The response to most oral and topical medications for acne is usually seen after at least 6 weeks of treatment.<sup>4</sup> However, some treatments may take more time for an optimal response. Topical treatments may be continued for years. Oral antibiotics may be discontinued gradually if the condition remains under control for 2 months.

**References**

1. Bhambri S, Del Rosso JQ, Bhambri A. Pathogenesis of acne vulgaris: recent advances. *J Drugs Dermatol* 2009;8:615-8.
2. Sagransky M, Yentzer BA, Feldman SR. Benzoyl peroxide: a review of its current use in the treatment of acne vulgaris. *Expert Opin Pharmacother* 2009;10:2555-62.
3. Del Rosso JQ. Selection of therapy for acne vulgaris: balancing concerns about antibiotic resistance. *Cutis* 2008;82(Suppl):12-6.
4. Ingram JR, Grindlay DJ, Williams HC. Management of acne vulgaris: an evidence-based update. *Clin Exp Dermatol* 2010;35:351-4.
5. Arowojolu AO, Gallo MF, Lopez LM, et al. Combined oral contraceptive pills for treatment of acne. *Cochrane Database Syst Rev* 2009;(3):CD004425.

**The type of lesion determines the choice of therapy**

First-line treatments for acne are topical. Retinoids specifically target comedones, whereas antimicrobial agents (e.g., clindamycin, erythromycin) and benzoyl peroxide are usually used for inflammatory papules and pustules.<sup>2</sup> Combining benzoyl peroxide with topical or oral antibiotic drugs reduces the risk of antibiotic resistance.<sup>3</sup> Other topical treatments include over-the-counter preparations containing salicylic acid and products combining several anti-acne agents.

**Special circumstances may warrant alternative medical and cosmetic therapies**

Physical treatments for acne include comedone extraction, chemical peels, microdermabrasion and photodynamic therapy. Intralesion injections of corticosteroids may be used for temporary treatment of cysts. Injectable fillers and laser resurfacing can improve the appearance of scarring.

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