

# Acne: On the road to clear skin

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## Introduction

Acne is the most common skin condition in humans and although there is no cure for this chronic condition, effective treatment is available. Stress cannot cause acne, but acne can result in emotional distress with profound effects on patients. Most patients with acne will initially resort to self-treatment options and mild acne usually responds well if treatment is used correctly. This article discusses the use of products that are available over the counter (OTC) to manage acne.

## What is acne?

Abnormal shedding of skin cells causes blockage of pores that prevents proper drainage of sebum (oil). This results in the formation of non-inflammatory lesions or 'comedones' that can either be open (blackhead) or closed (whitehead). Excess sebum encourages the growth of bacteria which are involved in the development of inflammation of the lesions. If the inflammation is not severe, small red papules appear, but severe inflammation can cause large red lesions on the skin. Treatment of mild to moderate acne is focused on treating the blocked pores to enable the drainage of sebum and also to reduce the number of bacteria on the skin. Moderate to severe acne or acne that causes the patient substantial distress requires referral of the patient to the doctor.

Acne can affect areas of the skin that have many oil-secreting glands, usually the face, neck, upper back, centre of the chest and shoulders. Acne can persist for a few months to several years. Hormone imbalances seen in adolescence, during pregnancy or associated with the menstrual cycle, during periods of stress or following the use of certain medications can aggravate acne. Some medicines that can worsen or cause acne include:

- Oral contraceptives that contain progesterones
- Oral and topical cortisones
- Anabolic steroids
- Lithium
- Phenytoin and
- Vitamin B<sub>12</sub> (especially high-dose intramuscular products)

## Acne skin care

Wash affected areas twice a day using a gentle non-soap skin cleanser. Washing the skin more often than this can result in irritation and dry skin. Cleansers should be mild and non-abrasive and should not contain alcohol. Cleansers that contain emollients such as lanolin, mineral oil, petrolatum and ceramides or glycerin can prevent the skin from becoming dry while alpha-hydroxy acids may be used to exfoliate the skin. Cleansing of the skin before application of medication helps remove dead cells and increase the absorption and efficacy of the treatment.

Avoid using hot water, harsh cleansers, scrubs, washcloths or loofahs. Vigorous scrubbing and washing can worsen acne and damage the skin's surface. Patients should not pick or squeeze pimples or blackheads as this can worsen acne and may cause swelling, scarring and/or infection.

Unnecessary moisturising with oily moisturising creams and masks can also worsen acne. If it is necessary to use a moisturiser, a light, oil-free moisturiser should be used and products marked "non-comedogenic" are ideal. Using cosmetics to hide blemishes can improve morale but it is imperative to use water-based products and to avoid all oily cosmetics and skin-care products as they can clog pores and worsen acne. Make-up should be completely removed at the end of the day.

Acne treatments such as topical benzoic acid, topical salicylic acid and some prescription medicines can make the skin more sensitive to the sun and it is recommended to use sunscreen and avoid excessive exposure to the sun.

## Treatment

There is no single best treatment for acne and combination treatment is often recommended. Since lesions take at least eight weeks to mature, treatment should be used for at least two to three months before deciding whether it is effective. Patients should be warned that acne is slow to respond to treatment and a period of up to six months may be required for maximum benefit. There are several treatment options that are available without prescription for the treatment of acne.

### Benzoyl peroxide

Benzoyl peroxide has both antibacterial, anti-inflammatory and anti-comedogenic actions and is recommended for initial treatment of moderate to severe acne. It increases the turnover of skin cells, helping the skin to peel. Initial treatment can cause skin irritation and it is recommended to start treatment with a product containing 2.5 or 5% of benzoyl peroxide. The product may be applied in the evening and washed off after three or four hours initially to limit irritation or may be used on alternate days when starting treatment. Patients can then gradually leave it on for longer periods if necessary until it is applied last thing at night and washed off in the morning. If the lower doses are not effective enough but the treatment is well-tolerated, a higher strength cream may be recommended or the treatment may be applied twice daily. Avoid contact with the eyes, angles of the nose, mouth and mucous membranes. Since benzoyl peroxide prevents the formation of new lesions, it should be applied over the whole of the affected area and is best applied after proper cleansing of the skin.

Warn patients that benzoyl peroxide can bleach towels, bedding, clothing and hair. It may be prudent to use white or old towels, clothes and bedding.

### Salicylic acid

Preparations containing 0.5 to 10% of salicylic acid can be used for treatment of acne. Salicylic acid helps correct the abnormal shedding of skin cells and prevents blockage of pores but it does not kill bacteria or affect the amount of sebum that is produced. Salicylic acid has to be used continuously over the entire area as it prevents the formation of acne and is therefore not effective as spot treatment.

### Azelaic acid

Azelaic acid reduces the shedding of skin cells and also has an antimicrobial effect. It is available as a 20% OTC cream in South Africa and should be applied twice daily. If skin irritation occurs, the frequency of application should be reduced to once a day and its use may even need to be stopped for a few days to allow the skin to recover.

### Sulphur

Sulphur is not as effective on its own and is often avoided due to its unpleasant odour. However, it is often included as one of the ingredients in some of the OTC products for treatment of acne.

## When to refer

Although several treatment options are available for self-treatment of acne, some patients may need referral to a doctor for further assessment and treatment. The following are indications for referral:

- Patients who adhere to treatment and do not see improvement within 8–12 weeks
- Patients with inflamed acne
- Patients who develop scars after lesions have healed
- Acne that is suspected to occur due to medication use
- Lesions that are large, hard or filled with fluid
- Patients who develop emotional stress as a result of their acne

## Conclusion

Acne can cause embarrassment, frustration and anger and a sympathetic response to requests for help with an invitation to report on progress can be as important as the treatment selected. Although there is no cure for acne, several OTC treatment options are available. It is important to inform patients that acne is slow to respond and they should not expect results quickly. Treatment should continue for at least eight to twelve weeks before expecting results and often up to six months for maximum benefit. Since acne is not curable, it may be necessary to continue chronic treatment to control acne for several years. The pharmacist's assistant is in the ideal position to recommend initial treatment options and motivate and monitor patients to persist and continue treatment, but should also know when it becomes necessary to refer to a doctor.

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