

# ConradPetersen

## DERMATOLOGY

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### Acne

#### General Information:

Acne is the most common skin condition in the United States and affects 85% of adolescents. The cause of acne is multifactorial and involves the overproduction of an oily substance called sebum, stacked and plugged skin cells (keratinocytes) that line hair follicles, growth of bacteria (*Cutibacterium acnes*), and inflammation. The hair, sebum, and keratinocytes that fill the narrow follicle may develop a plug, which is an early sign of acne. The plug prevents sebum from emptying to the surface of the skin. This mixture of oil and cells allows bacteria that normally live on the skin to grow in the plugged follicles. These bacteria produce chemicals and enzymes which lead to localized inflammation that manifests as pimples.

Acne is thought to be secondary to a combination of genetic factors and an increased production of androgens (male sex hormones). The androgens result in increased levels of sebum.

#### Treatment:

Treatment involves addressing the issues discussed above – “unplugging” the follicles, calming the inflammatory reaction, reducing sebum production, and eradicating *C. acnes*. Medications selected work on one or several of these problems.

Medications used to treat acne include topical retinoids, benzoyl peroxide, topical antibiotics, oral antibiotics, spironolactone (an oral anti-androgen agent), birth control pills, and isotretinoin (Accutane).

Injections of anti-inflammatory medication can rapidly diminish an inflamed acne nodule or cyst.

Treatments by an aesthetician can also improve acne. These include chemical peels and SilkPeels. These treatments are not covered by insurance, but some patients prefer them.

Mild acne often responds to topical medications alone.

Moderate to severe acne generally requires a combination of oral and topical medications for adequate control.

Any level of acne, mild to severe, can lead to scarring. Even blackheads and whiteheads can result in scars.

**No matter which treatment is selected, it usually takes 6–8 weeks to see improvement. Be patient, and don't give up on your medication!**