



## In Health Naturopathic Medicine – Crystal Hannan, ND

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### Acne

Acne is an inflammatory disorder of the pilosebaceous unit (a hair follicle and associated sebaceous gland). There are three major forms of acne: acne vulgaris, acne gonglobata (cystic acne), and rosacea. Lesions are classified as either non-inflammatory (pimples and blackheads) or inflammatory (pustules and cysts). There are four major causal factors in acne:

- **Androgens:** in puberty, the levels of testosterone rise in both males and females. In addition, the skin of acne sufferers seems to produce higher levels of 4-alpha-reductase—the enzyme responsible for converting testosterone in to its most active form. Testosterone causes increased sebum production as well as increased keratin production in the walls of the hair follicle. The increased keratin makes it easy for the follicle to become plugged while increased sebum backs up behind it, forming an acne lesion.
- ***Propionibacterium acnes*:** when the follicle becomes plugged, this bacteria overgrows and secretes enzymes that break down the sebum and promote inflammation. This inflammation is what causes acne lesions to look red.
- **Diet & Sebum composition:** depending on dietary intake, sebum can contain high levels of trans fatty acids and oxidized fatty acids—both of which contribute to inflammation.
- **GI dysbiosis:** gut health plays a huge role in skin health. If the GI flora becomes imbalanced, digestion slows and becomes less efficient. This allows toxins to build up in the gut and be absorbed into the body. One study showed that 50 percent of patients with severe acne had increased blood levels of toxins absorbed from the intestines.

Other factors that may play a role in acne include: the use of oil-based cosmetics, antibiotic use (this can lead to superinfection of acne lesions by more serious bacteria), birth control pills, stress & fatigue, hot & humid environments, and chronic irritation.

#### Conventional Approach

Conventional noninflammatory acne treatment focuses on topical skin cleansers and peels, including Retin-A (which can cause severe drying and peeling of the face—sun exposure must be avoided), benzoyl peroxide (which may increase risk of cancer), and natural sunlight. Treatment for inflammatory acne may include antibiotics (to reduce bacteria), estrogen (to suppress sebum production), and Accutane (decreases sebum production; highly toxic & can cause birth defects, liver damage, increased blood lipids, and many other side effects).

#### Naturopathic Approach

The naturopathic approach to acne may include any or all of dietary & lifestyle modification, Vitamins A, B6, B complex, E & C, zinc, chromium, selenium and other antioxidants, probiotics, fish oils, botanicals, homeopathy, hydrotherapy, sunlight, topical tea tree oil or azaleic acid.