

Medical Reference: Acne Vulgaris

1. Condition Overview

Name: Acne Vulgaris **Definition:** Acne vulgaris is a chronic inflammatory skin condition involving the pilosebaceous units, which include the hair follicles and associated oil glands (sebaceous glands). It is characterized by the formation of comedones (blackheads and whiteheads), papules, pustules, and in more advanced stages, nodules and cysts. The condition occurs when hair follicles become plugged with oil and dead skin cells, often exacerbated by the presence of *Cutibacterium acnes* bacteria.

Who is commonly affected: While most prevalent during puberty due to hormonal surges (affecting approximately 80% of teenagers), acne also frequently affects adults, particularly women undergoing hormonal fluctuations. It can appear on the face, back, chest, and shoulders where sebaceous glands are most numerous.

2. Visual Severity Mapping

The following numerical scores are used to categorize the clinical presentation and dictate the intervention path:

- **Mild (0–30):** Characterized by few localized lesions. Primarily non-inflammatory comedones (whiteheads/blackheads) with a small number of papules. Minimal redness and no deep-seated nodules.
- **Moderate (31–60):** Characterized by multiple inflamed lesions. Increased frequency of papules and pustules across several zones of the face or body. Visible redness, occasional painful lesions, and increased risk of post-inflammatory hyperpigmentation.
- **Severe (61–100):** Characterized by widespread, painful lesions. Presence of deep-seated nodules and cysts. High degree of inflammation, significant redness, and a high risk of permanent scarring (atrophic or hypertrophic).

3. Common Triggers

- **Hormonal Imbalance:** Fluctuations in androgens, particularly during puberty, menstruation, or pregnancy.
- **Excess Sebum Production:** Overactive sebaceous glands producing too much oil.
- **Follicular Hyperkeratinization:** Dead skin cells failing to shed properly and clogging pores.
- **Bacterial Colonization:** Proliferation of *C. acnes* within the blocked follicle.
- **Stress:** Elevation of cortisol levels which can exacerbate inflammatory responses.
- **Dietary Factors:** High-glycemic index foods and certain dairy products in sensitive individuals.
- **Comedogenic Products:** Heavy oils or greases in cosmetics and hair products.

4. Evidence-Based Care Guidelines

Mild Care (Score: 0–30)

- **Cleansing:** Use a gentle, soap-free, non-comedogenic cleanser twice daily.

- **Active Ingredients:** Utilize Over-The-Counter (OTC) Salicylic Acid (BHA) to exfoliate inside pores or Benzoyl Peroxide (2.5%–5%) to reduce bacteria.
- **Moisturization:** Apply oil-free, water-based moisturizers to maintain the skin barrier.
- **Sun Protection:** Use a "dry-touch" or gel-based SPF 30+ daily, as some acne treatments increase photosensitivity.

Moderate Care (Score: 31–60)

- **Topical Retinoids:** Introduction of Adapalene or Retinol to regulate cell turnover.
- **Combination Therapy:** Use of Benzoyl Peroxide in the morning and a retinoid at night.
- **Professional Consultation:** A dermatologist visit is recommended to discuss prescription-strength topicals (e.g., Tretinoin or topical antibiotics).
- **Management:** Avoid physical scrubs; chemical exfoliation is preferred to prevent further inflammation.

Severe Care (Score: 61–100)

- **Specialist Intervention:** Immediate consultation with a board-certified dermatologist is mandatory.
 - **Systemic Treatment:** Consideration of oral antibiotics (Doxycycline/Minocycline) or oral isotretinoin for persistent cystic acne.
 - **Procedure-Based Care:** Cortisole injections for individual large cysts to prevent scarring.
 - **Strict Protocol:** Avoid all forms of self-treatment or "home remedies" which can worsen scarring at this stage.
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5. Do's and Don'ts

Do

- **Patch Test:** Test new active ingredients on a small area for 48 hours.
- **Consistency:** Allow 6–8 weeks for any skincare routine to show measurable results.
- **Sanitization:** Regularly clean cell phone screens and change pillowcases.
- **Sunscreen:** Apply daily to prevent acne marks from turning into permanent dark spots.

Don't

- **Pick or Squeeze:** Never pop lesions; this forces bacteria deeper and causes scarring.
- **Over-wash:** Cleaning the skin more than twice a day can strip the barrier and trigger more oil production.
- **Mixing Actives:** Avoid using high-strength Vitamin C, AHAs, and Retinoids all in the same application.
- **Touching Face:** Minimize hand-to-face contact to reduce bacterial transfer.