



Acne Guidelines for Pediatric Patients

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Acne vulgaris is the most commonly encountered dermatologic condition in the United States, across all racial groups. The age of onset is typically during puberty and adolescence; however, some patients present initially during adulthood. The key mechanisms involved in the pathogenesis of acne include follicular hyperkeratinization, leading to plugging of the follicle, excess sebum production from increased androgens, *Propionibacterium acnes* (*P. acnes*) overgrowth, and inflammation. Without early intervention, acne can result in unfortunate sequelae, such as dyspigmentation and pitted, depressed or hypertrophic scarring. Emotional distress, anxiety, depression and poor self-esteem can occur in teenagers who have become frustrated with their facial appearance, especially after trying various over-the-counter (OTC) acne products.

Some pediatric patients and their parents inquire about potential foods that may exacerbate acne and how changing their diet can impact their acne. There are certain myths regarding diet and acne, such as the belief that chocolate and carbonated beverages/sodas worsen acne. In a 2014 CME article published in the JAAD, the authors concluded, "multiple randomized controlled trials support the benefit of a low glycemic index/load diet for acne patients." In addition, they stated "while observational studies suggest that frequent milk consumption imparts a higher risk of acne, randomized controlled trials are necessary before dietary recommendations can be made." These are important tips of advice that practitioners may want to educate to those patients who desire dietary modifications as a means to improve their acne.

The treatment of acne for pediatric patients should first begin with designing a simple, yet standard facial cleansing routine. A gentle mild soap (such as Dove®) or hypoallergenic, non-comedogenic cleanser (such as Cetaphil® or CeraVe®) should be utilized morning and nightly. Many teenagers believe that frequent washing with astringents, scrubs or exfoliants remove bacteria and debris; however, it is important to educate patients that these practices may lead to further irritation, xerosis, hyperpigmentation, and intolerance to topical acne medications. Patients should also be discouraged from "picking" or manipulating their acne lesions as this often leads to scarring. It is also important to educate teenage females that excessive use of heavy make-up may lead to further follicular plugging.

Several topical acne products are available OTC, most commonly benzoyl peroxide and salicylic acid. For adolescents with mild comedonal acne, an OTC benzoyl

peroxide preparation such as PanOxyl® 4% acne creamy wash can be effective as it is indicated for more sensitive skin. In July 2016, the U.S. Food and Drug Administration announced the first retinoid approved as OTC use for the treatment of acne – Differin Gel 0.1% (adapalene). It is indicated as a once-daily topical use in individuals 12 years of age and older.

For pediatric patients with acne unresponsive to OTC regimens, it is important for parents to promptly seek dermatologic expertise. Prescription medications, such as topical retinoids, combination antibiotic products (such as benzoyl peroxide/clindamycin preparations), azelaic acid, topical dapsone, oral antibiotics or oral contraceptive agents can be helpful for pediatric patients. It is recommended to start topical retinoids at a lower strength every-other-night and titrate upward as needed over a slow duration in order to avoid irritation, erythema and xerosis. Patients should also apply a lightweight, non-comedogenic moisturizer as needed.

Sometimes teenagers may become noncompliant with a topical regimen. Some believe it may be easier to remember to “take a pill” as opposed to using their topical agents. It is important for the provider to emphasize that overuse of oral antibiotics contributes to more antibiotic resistant-bacteria and should not be encouraged long-term. Some severe cases, such as nodulocystic acne recalcitrant to conventional therapies, may require isotretinoin. Finally, it is crucial to inform both teens and their parents that they must be patient with their progress as acne can worsen in the initial stages of treatment and often takes up to 3-4 months to show signs of clinical improvement.