Acne Treatment in Teens

Hayley was horrified when she first noted blackheads on her nose in seventh grade, followed a few months later by red pimples. What was wrong? Was she not washing her face enough? (No, that is a myth—see Table 1.) She didn’t even want to go to school after scrutinizing her skin with a magnifying mirror in the morning, feeling like there was a flashing red sign on her forehead: “I’m full of zits.” Meanwhile, down the hall, her brother Jack barely casted a glance at his face as he grabbed his backpack and rushed out of the house, late for high school once again. That night, while Hayley combed beauty blogs assiduously for advice on the latest miracle salve, Jack ignored the bottles and tubes of prescription products sitting on his bathroom shelf.

Most people don’t think much about a teenager with acne on her face: About 85 percent of girls and 90 percent of boys develop acne at some point during their teen years. One could even argue that it is not a disease, but a normal part of puberty. Yet this common skin problem impacts teens in many ways. While even mild acne can cause marked social distress in some children like Hayley, others like Jack, even with moderate disease, sail through adolescence minimally affected. Those with severe acne, on the other hand, may have constant pain and tenderness in their skin as well as great difficulty coping in our perfectionistic society; in these cases, acne can even lead to marked social isolation and depression.

Careful consideration of how acne affects a teen’s life is an important place to start when medical providers plan a treatment regimen. Ease of use, potential for skin irritation, and cost are all factors that determine the right agents to use. Hayley is motivated and will follow a somewhat complicated topical regimen. Her brother, on the other hand, may only comply with taking a pill and using a medicated wash once daily. Fortunately, today there are many effective options available for the treatment of acne. As a result, most acne in teens can be safely and adequately controlled even when it is severe or when the patient is willing to expend very little effort to manage their skin. If the provider first takes the time to outline the cause of acne and to dispel the many mistruths propagated by acne product marketing, social media, and the Internet (Table 1), he or she can then develop a realistic plan for acne therapy. This initial step will go far in preventing major frustration for patients, parents, and providers alike.

The range of acne treatment should be imagined as a “therapeutic ladder.” As the disease becomes more severe, stronger agents are added to those used for a milder problem (Table 2). If indicated, more potent prescription agents take the place of weaker over-the-counter (OTC) drugs.

For young children and preteens with superficial lesions, OTC low-potency benzoyl peroxide (BP 2.5-5 percent) is the best place to start. Propionobacter acnes (bacteria that grows in the oil-producing hair follicles in the skin after puberty and recruits the body’s immune cells to the skin) is well controlled by this inexpensive antimicrobial agent. While a small minority of patients develop BP allergy, most tolerate it well at low strength. Higher concentration preparations (10 percent) should be avoided, as they do not kill more bacteria; they only irritate the skin more. Also, there is no need to sign up for the more pricey BP products promoted on the Internet and at mall kiosks, as the extra cost of marketing is passed on to the consumer. Better to buy less expensive drugstore products when they are needed, instead of stockpiling fancy bottles sent every month with an auto charge on the credit card. Another OTC product that helps mild surface acne is salicylic acid 2 percent. It is a mild exfoliant, and it is more effective when used in combination with benzoyl peroxide.

Both products are available in a wide range of vehicles: washes, wipes, masks, and leave-on lotions and gels. Some younger children and less compliant older teens do better with washes or wipes. If the chest and back are involved, washes are best because leave-on preparations can bleach and stain clothing. A set of white towels and linens is a good investment in a household where teens are using benzoyl peroxide.

It is also important to launder these linens separately, unless one likes the tie-dye look!

As the child progresses further into his teens, acne can become deeper and more extensive, spreading from the central face (the “T-zone” of forehead, nose, and chin) to the lower face (the “U-zone” of lower jaw, temples, neck and trunk). In addition, pimples may get larger, deeper, and more inflamed, and they may leave dark-colored or pitted scars. Once pimples are more numerous, under the skin, painful or tender, or located on the neck, chest, and back, it is...
time to take the teen to a primary care provider for prescription products. Topical and/or oral antibiotics can be added to the OTC benzoyl peroxide. Topical retinoids such as tretinoin or adapalene may be substituted for salicylic acid, as they are much more potent pore-unclogging agents. However, they are irritating and hard to use, so they should be introduced gradually so the skin can get used to the peeling effect. Every other day or even twice-weekly application that is gradually increased in frequency is a much better tolerated routine than starting with daily use. In less compliant teens, brand name preparations that combine benzoyl peroxide with retinoids may be worth the extra cost to simplify the regimen and enhance compliance. No matter what agents are chosen, it takes 2 to 3 months for them to work. Teens want instant improvement, so explaining the need to be patient is critical.

If the child is not helped by three months of prescription products, or if the child has dense or deep acne that is scarring, referral to a dermatologist is indicated. This skin specialist may consider more aggressive options, including systemic isotretinoin or, in girls, birth control pills. Although these options carry more risk, they are much more effective agents for severe acne and can be life-altering and safe when prescribed appropriately by an experienced dermatologist.

When all lifestyle factors are considered, and the nature of acne and its treatment carefully explained, the majority of adolescents are able to integrate an effective therapeutic regimen into their busy lives. The goal for all teens, whether they are like Hayley or Jack, is successful control of this normal part of puberty, and forever eliminating that agonizing look in the mirror from the morning routine.

### TABLE 1: ACNE MYTHS AND REALITIES

<table>
<thead>
<tr>
<th>MYTH</th>
<th>REALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acne is caused by dirt</td>
<td>Pubertal hormones cause oil production in hair follicles on the face and trunk, leading to Propionobacter acnes growth and occlusion of the hair follicle. Clogged follicles eventually rupture, leading to inflammation deeper in skin.</td>
</tr>
<tr>
<td>Milk and chocolate cause acne</td>
<td>An anti-inflammatory, Mediterranean heart-healthy diet probably helps the skin along with the heart.</td>
</tr>
<tr>
<td>Scrubs, strips, and masks unclog pores</td>
<td>Blackheads are microscopic—too small for these products to unplug. Medications such as OTC salicylic acid, Rx tretinoin, and adapalene are much more effective.</td>
</tr>
<tr>
<td>Facials clear acne</td>
<td>Facials are relaxing but expensive and not as efficacious as Rx products; some that use mild peeling agents such as glycolic acid are helpful if done regularly.</td>
</tr>
<tr>
<td>Acne only happens in teenagers</td>
<td>Young children can develop acne as the first sign of puberty.* Acne can also persist into adulthood, especially in women.</td>
</tr>
</tbody>
</table>

*Acne in younger children is now so common that it has a name: “mid-childhood acne.” At what age one needs to worry about acne and other signs of early puberty in children is controversial and can be affected by the genetic background. Most consider 7–8 years in girls and 9 years in boys the lower end of normal for the appearance of acne. If you are worried that your child is developing too early, discuss these concerns with your primary care provider.

### TABLE 2: COMMONLY USED THERAPEUTIC AGENTS FOR ACNE

<table>
<thead>
<tr>
<th>AGENT</th>
<th>ACTION</th>
<th>ADVANTAGES</th>
<th>DISADVANTAGES</th>
<th>COST</th>
</tr>
</thead>
</table>
| Benzoyl Peroxide | Controls P. acnes | P. acnes can’t develop resistance | • Bleaches fabric  
• Can dry skin  
• Rare allergy | OTC/$ |
| Salicylic acid | Mild pore unclogger | Cheap, widely available | • Can irritate  
• Minimal efficacy | OTC/$ |
| Topical clindamycin | Antibiotic helps control P. acnes | Comes in gels, lotions that are non-irritating | • P. acnes can become resistant; use with BP | Rx/$ |
| Tretinoin | Good pore unclogger, even better at higher concentrations | Treats primary lesion of acne: clogged pores | • Irritating  
• Slightly sun-sensitizing | Rx/$$ |
| Adapalene | Good pore unclogger | Can be less irritating than tretinoin | • Still can be irritating  
• Mildly sun-sensitizing | Rx/$$$ |
| Doxycycline | Systemic anti-inflammatory and antibiotic for P. acnes | More effective than topical agents for deep, inflamed, or truncal acne | • 20% very sun-sensitive  
• Heartburn, stomach irritation  
• P. acnes resistant over time; use with BP | Rx/$$$ |
| Isotretinoin | • Very potent pore unclogger  
• Shuts down oil gland production so P. acnes can’t survive | Most effective; especially indicated for deep, scarring acne | • Many adverse effects, so must be very closely monitored  
• Teratogenic; can’t use in childbearing female unless 2 methods of birth control used & documented | Rx/$$$ |

Renee Howard, MD, completed her residency at Children’s Hospital Oakland in 1988. She is a board-certified pediatric dermatologist and an Associate Clinical Professor in the Department of Dermatology at the University of California, San Francisco.