

# Understanding the Full Spectrum of Acne Care

When treating acne, dermatologists increasingly face more choices. An expert tells you what works and when to use it.

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**W**ALK DOWN THE "BEAUTY AISLE" OF ANY supermarket and you'll uncover a world of washes and creams designed to stop acne dead. Open up the pages of any popular magazine and beautiful people will tell you that potent prescription medications are about to send acne the way of the plague. But look closely at the patients who have trudged through your office today and you'll realize that, despite the promises, acne is thriving.

In fairness to marketers, there really are a number of very effective OTC and prescription washes and creams that, used alone or in combination, can promote long-term clearance in acne patients. Our job as dermatologists is to help patients identify the products that will work for them and to teach them how to use them effectively.

## WASHES, SCRUBS, AND ASTRINGENTS

Sensitivity is key for acne patients, so they should avoid all scrubs and exfoliating washes. For the most part, patients should use soap free cleansers which they lather with their hands. Patients can choose from a number of very good, gentle cleansers, including Cetaphil, Eucerin, Neutrogena Extra Gentle Cleanser, and Aquanil.

Some acne washes contain antimicrobials like triclosan or benzoyl peroxide. Others contain salicylic acid. Both types of products can be helpful in acne therapy. While benzoyl peroxide helps reduce pustules, salicylic acid helps diminish comedones.

## TOPICAL THERAPY

Topical therapy is the best approach to cases of mild to moderate acne. Patients appreciate a simple regimen and we physicians can avoid concerns about side effects associated with oral medications. Luckily, a number of effective topical medications exist, including retinoids and antimicrobials.

**Retinoids:** When tretinoin entered our armamentarium in 1979, it immediately assumed a high-profile role in the treatment of acne. Today, any effective topical anti-acne regimen relies on retinoids and the new generation of retinoid-like agents to open up the pore and help regulate the hyperkeratinization of affected follicles.

Retin-A, the original tretinoin preparation, remains popular in acne therapy, though concerns about irritation and photostability persist. Because of the associated irritation, I no longer prescribe Retin-A gel or cream. Retin-A Micro, a new form of tretinoin, contains "micro-sponges"—time-release capsules that deliver the medication to the skin slowly over time to reduce irritation. Patients sometimes dislike Retin-A Micro's thick, yellow lotion. Furthermore, the spheres may create a gritty feeling on the skin, and they sometimes leave a white powder on the face when dried.

Avita is 0.025% tretinoin available in a cream or gel.

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Avita's unique formulation provides a reservoir on the skin from which the drug can be slowly absorbed over 12 to 24 hours. The slow release limits irritation and many dermatologists prescribe the cream for patients with sensitive skin.

A new option among the retinoids is tazarotene 0.1% gel (Tazorac, Allergan). Since the product, which has been used effectively for psoriasis, is new to the acne arena, we will have to wait to see if it offers any advantages over other products.

Finally, Differin, a derivative of naphthoic acid, is photochemically stable, produces less irritation than tretinoin, and has beneficial anti-inflammatory properties. Since it is not altered in combination with benzoyl peroxide, Differin offers unique advantages to patients. Thanks to Differin, patients may apply topicals once daily (using Differin and benzoyl peroxide simultaneously) if they prefer, rather than applying one product in the morning and one in the evening.

Furthermore, patients used to apply Retin-A before bed so they wouldn't have to worry about sunlight degrading tretinoin. Then they would apply benzoyl peroxide in the morning. But benzoyl peroxide can leave an unpleasant white film on the face that would bother patients during the day. Now, patients can use Differin in the morning and benzoyl peroxide before bed.

**Topical Antimicrobials:** The second phase of topical therapy is to eradicate the bacteria partly responsible for the pathogenesis of acne—*P. acnes*. The best topical agent known to kill *P. acnes* is benzoyl peroxide, which is available OTC and by prescription. Among the topical antimicrobials, my preferred products are OTC benzoyl peroxide products, Benzamycin, or Triaz, which I prescribe for once daily application. I usually recommend patients use OTC benzoyl peroxide creams. However, if patients can't tolerate these preparations, I'll prescribe Triaz or Benzamycin. The Benzamycin package insert calls for application twice daily, but I find the combination of benzoyl peroxide



Scattered comedones in the early stages of acne vulgaris. Topical retinoid therapy is necessary to clear out the pores.

once daily and a retinoid once daily very effective.

One drawback associated with Benzamycin is that it must be refrigerated. However, the product also has a unique benefit. The erythromycin in the formulation, for unknown reasons, decreases irritation from benzoyl peroxide.

Other topical antibiotics, such as clindamycin or Aknemycin, may be effective in acne therapy, though they do not kill *P. acnes* as effectively as benzoyl peroxide. Patients sensitive to benzoyl peroxide or who are unable to take oral antibiotics due to pregnancy may rely on these alternative agents.

**Salicylic Acid:** Salicylic acid is available in over-the-counter creams and prescription ointments for the treatment of acne. A known comedolytic, salicylic acid helps to open the pores. Though commonly considered less effective than the retinoids, salicylic acid can be a useful adjunct for patients who still have comedones after using retinoids.

#### BEST BETS

Remember, your goal with topical therapy is to (1) open up the follicles and (2) kill *P. acnes*. Why, then, do some physicians prescribe Differin and salicylic acid or topical tetracycline plus benzoyl peroxide? The former pairing works only to open the pores, the latter strikes

### An Algorithm for Treating Acne

TYPE OF ACNE	REGIMEN
Mild	1. QAM Differin QHS OTC benzoyl peroxide <u>or</u> 2. QAM Benzamycin QHS Avita <u>or</u> 3. QAM Triaz QHS Retin-A Micro
Moderate	Same as "Mild" + tetracycline or doxycycline
Treatment Resistant	Replace tetracycline or doxycycline with minocycline
Failure of treatment, scarring, relapse	Accutane
Mild Relapse after Accutane	Same as "Mild"
Moderate to Severe Relapse	Accutane

over twenty weeks.

Some patients, particularly those with a severe case of acne or a family history of the disease, may react slowly to Accutane. About halfway through therapy, a small number of patients may also develop macrocomedones—2-3mm cysts that develop just below the skin and are visible when the patient stretches the skin. Acne surgery is indicated to remove these cysts which could otherwise rupture and produce an inflammatory acne nodule.

**Testing:** Obtain fasting triglyceride and LFT measurements at baseline and at weeks four and eight. If these are normal, you don't need further monitoring unless you increase the dose.

I do find a few patients whose liver enzymes rise during isotretinoin therapy. As long as it remains below three times normal, I simply re-check it. Most of the time, it returns to normal. If the triglyceride level rises above 150 but stays below 400, I place patients on a high protein, low carbohydrate, low-fat diet. If the level rises above 400, I prescribe gemfibrozil (Lopid) 300mg BID initially. I'll give up to 600mg BID or more if necessary. If the triglyceride level goes above 500-600, I stop isotretinoin therapy immediately and prescribe Lopid for the patient.

The teratogenic effects of Accutane are well documented, and women taking isotretinoin need baseline and monthly pregnancy tests. It takes 4.4 days for isotretinoin to return to its physiologic concentration after therapy is stopped, and 9.7 days for its main metabolite to return to its physiologic concentration. Therefore, contraceptive measures maintained one month post-therapy are adequately safe.

## HORMONAL THERAPY

Hormones play an important role in the pathogenesis of acne, and hormonal therapy can promote clearance. It is well accepted that androgens affect sebum secretion, though the method of action is yet unknown. High levels of estrogen and low doses of estrogen with progestin probably suppress sebum production.

Oral contraceptives containing a norgestimate or desogestrel in combination with ethinyl estradiol can inhibit the production of androgens by the ovaries. Such products include Ortho Cyclen, Ortho Tri-Cyclen, Desogen, or Orthocept, though the FDA has only approved Ortho Tri-Cyclen for the treatment of acne.

Spironolactone, though not approved for acne, is an anti-androgen and may help lower sebum production. Usual starting dose is 25mg twice daily leading a total dose of up to 200mg per day. Spironolactone is also very effective in combination with oral contraception.

## Treating Patients of Color

Pigmentation may mask the inflammation of darker-skinned acne patients. But that doesn't mean it isn't there. For the most part, I don't alter my treatment regimen when dealing with patients of color. However, I am vigilant for signs of post-inflammatory hyperpigmentation.

Generally, the hyperpigmentation results from melanin in the epidermis and is typically responsive to topical lightening creams. My treatment of choice is Azelex, applied BID. The cream helps lighten the pigmentation plus helps maintain clearance. Hydroquinone (Solaquin Forte, Lustra, etc.) is another acceptable bleaching agent for these patients.

If you are ever unsure about the proper administration of oral contraceptive pills or spironolactone, consult with a gynecologist.

## IS THERE A CURE?

Patients with mild-to-moderate acne should achieve and maintain clearance with little incident, using the regimen outlined here. Patients with moderate-to-severe acne—especially those who use Accutane—also stand a good chance at long-term clearing, but relapse is a real possibility. Studies show that patients who receive a total dose of only 90mg/kg of Accutane had a 10 percent chance of cure. Those who received a total dose of 100 to 120mg/kg had a 40 percent chance of cure. These data illustrate the importance of giving patients a total dose at or near 120mg/kg. It's also a poignant reminder that, even with the best therapies available, some patients will relapse. For those patients, topical therapy or oral antibiotics are usually effective. Still, about 20 percent of patients require a second course of isotretinoin.

Patients younger than 16 are most likely to suffer a relapse off of Accutane. This makes sense given the fact that acne naturally progresses until about age 16 and then slowly diminishes. If a patient has already had multiple relapses, expect a future outbreak.

For the occasional female patient who relapses off of a second course of isotretinoin I check hormone levels, including DHEAS and testosterone. Treatment options for these women include another course of Accutane or a course of spironolactone (100mg/day) and oral contraceptive pills (Ortho Tri-Cyclen), with or without minocycline (100mg/day) and topical therapy. ●

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