

# Glycolic Acid Vs. Lactic Acid

*by Dr. Diana Howard*

One of the most frequently requested services in skin treatment centers is still chemical exfoliation. Why? Because it offers the client instant results and is still affordable, especially when you compare it to laser and other types of treatments being offered in doctors' offices.

Chemical exfoliation treatments will almost always involve the use of Glycolic Acid or Lactic Acid, both of which are alpha hydroxy acids (AHAs). Ask most skin therapists which AHA they think works best and they will undoubtedly say Glycolic. But while Glycolic Acid is commonly thought of as the better of the two, independent research studies on alpha hydroxy acids have determined that this is not necessarily the case, and that Lactic Acid is the superior AHA.

Studies on these two alpha hydroxy acids have indicated that:

- Glycolic Acid, which is a smaller molecule than Lactic Acid, penetrates the skin more readily than Lactic Acid.
- Because it penetrates more readily, Glycolic Acid is more irritating to the skin than Lactic Acid.
- The activity of Glycolic Acid and Lactic Acid in water-based formulas is controlled by the pH of the solution: Optimum activity is at pH 3.0-3.2 and lowering the pH below this level only causes more irritation.
- Scientific studies by Dr. Walter Smith have demonstrated that when one compares Lactic Acid to Glycolic Acid, Lactic Acid stimulates cell turnover and cell renewal at a higher rate than Glycolic Acid and with less irritation.
- Unlike Glycolic Acid, Lactic Acid has added benefits: it hydrates the skin, increases natural ceramides (barrier lipids) in the epidermis and whitens the skin when used at concentrations greater than 5%.

So why do both professionals and consumers think Glycolic Acid is the more beneficial AHA to use? Unfortunately, people often equate irritation with efficacy, and because Glycolic Acid causes more irritation, people tend to believe this means it's "working." In this case, pain does not equal gain.

Alpha hydroxy acids in the treatment room should ultimately accomplish a few main, immediate goals yet not cause inflammation, which can lead to pre-mature aging. These products should stimulate desquamation (exfoliation), trigger cell renewal and penetrate easily through the barrier lipids of the epidermis.

Before using any exfoliant, your client must complete a thorough consultation card to alert you of any contraindications, and a thorough skin analysis should be conducted. Chemical treatments, of course, stimulate the skin, so some mild redness may occur. Never allow this to turn to outright irritation. Communicate with your client about what she can expect during the treatment, and

always encourage your clients to speak up if something does not feel right at any point during the service, as irritation isn't always immediately visible.