

EXFOLIATORS

Everything to Know About Lactic Acid in Skin Care

Especially if you have sensitive skin.

By **Brittany Burhop Fallon**, Beauty Director · Aug 23, 2021



It seems like lactic acid is being used in more and more skin-care formulas these days, and though it's not new, brands are realizing how beloved and versatile the ingredient really is. For consumers, it's lived in the shadows of its alphahydroxy acid (AHA) "big brother" glycolic acid for many years, but that doesn't mean it's any less significant. In fact, "lactic acid is just a lighter, gentler version of glycolic acid, and as such, it can be tolerated by a larger variety of skin types," says New York dermatologist Melissa Kanchanapoomi Levin, MD. Here's what to know about this buzzy beauty ingredient.

What is lactic acid?

Spokane, WA dermatologist Wm. Philip Werschler, MD says lactic acid is a naturally occurring, water-soluble alpha-hydroxy acid (AHA) that is produced in the body through natural metabolism and muscle metabolism, especially if you overexercise. "It can also be produced from a variety of natural sources, including glucose, sucrose and other sugars—a common natural source of lactic acid is sour milk. It has been reported that Cleopatra used sour milk on her skin to keep it smooth and youthful, and to treat sun damage." In skin care, West Palm Beach, FL dermatologist Kenneth Beer, MD says it's considered a mild acid that's long been used for multiple reasons. "It's been around forever and we use it in our skin-care line, ScientificRx. I recommend it highly."

What can it be used to treat?

A popular exfoliator, lactic acid is considered a keratolytic agent, which Dr. Werschler describes as having the ability to dissolve keratin, the primary skin protein found in the epidermis (top layer of skin). "Therefore, it can soften skin and break down calluses, corns, thick skin areas, and even warts," he says. "Additionally, when dry and scaly skin is treated with lactic acid, its water-soluble properties help to reestablish the skin's water-binding capacity. Long-term use of moisturizers containing lactic acid, especially in the 12-percent range, have the ability to actually thicken the skin in a process known as keratoplasia. This means the skin can hold more natural moisturizing water in its outer layers, and thicker skin can also show less sun damage and fewer wrinkles and crinkles."

Somehow it manages to increase the skin's moisture level while still exfoliating it. "At higher concentrations, lactic acid works well as an exfoliating ingredient to break up connections between skin cells, while at lower concentrations, it works as a humectant, which means it has the ability to pull water into the outer layer of the skin," adds Dr. Levin.

Lactic acid is one of the main ingredients in Jessner's solution as well, which is one of the most common chemical peels used for acne, hyperpigmentation, wrinkles, sunspots, and more. "Lactic acid is great for minimizing fine lines and pigmentation due to its exfoliating properties," says Brigitte Beasse, Los Angeles celebrity esthetician and owner of Brigitte Beauté.

It can also be helpful for those who have acne. "It evacuates dead skin cells, promotes cell renewal and can also improve acne due to its antimicrobial properties," says New York dermatologist **Jody Levine, MD**. "But in older teens with more advanced acne, I prefer glycolic acid as my AHA of choice."

Is it good for all skin types?

Lactic acid has a larger molecule size compared to glycolic acid, which makes it less potent and more tolerable. Lactic acid not only stimulates the exfoliation of skin cells, but also increases ceramides, an important fatty acid in your skin to serve as a protective skin barrier. Regardless of its gentleness, Joshua Ross, aesthetician and founder of SkinLab in Los Angeles, always recommends doing a small patch test behind the ear or on the inner arm first to make sure it doesn't cause an allergic reaction. "After applying, wait 24 hours and see if you have a reaction, as some people do have an allergy to it," he says. Beasse adds that because lactic acid is naturally found in milk, for those with milk intolerance, they should look for synthetically derived or sugar cane-derived lactic acid instead.

Are there any ingredients you shouldn't mix with it, or any side effects?

Just like any other alphanhydroxy acid, it is important to ease into using lactic acid and be aware that products combining it with other active ingredients such as retinoids, vitamin C, betahydroxy acids and other alphanhydroxy acids, can create some skin irritation. "The overuse of products containing higher concentrations of lactic acid—usually more than 10 percent, especially on the face—can irritate the skin and cause redness, peeling, stinging, burning, swelling, and sun sensitivity," says Dr. Werschler. "If this occurs, simply take a break for a few days and then gradually reintroduce the product to your regimen. If you have active eczema, psoriasis or other inflammatory skin conditions, you should consult your dermatologist before using lactic acid-containing products. And always remember to wear sunscreen during the day when using the ingredient."

What are some of the best lactic acid skin-care products?

Sunday Riley Good Genes (\$105) is one fan-favorite that puts lactic acid center stage, but not all products do, and it doesn't make them any less effective. Dr. Levin and Dr. Werschler like SkinBetter AlphaRet Overnight Cream (\$120), which combines lactic with glycolic, as well as a retinol, and Ross says his go-to is The Ordinary Lactic Acid 10% + HA (\$7) because "it's affordable and blends lactic with hyaluronic acid, so it exfoliates and immediately hydrates the skin."

When it comes to masks and peels you don't have to use every day, Beasse is a fan of the Environ Tri Bio-Botanical Revival Masque (\$81), which uses lactic acid to hydrate skin and lighten the appearance of pigmented marks, and Dr. Beer prefers his ScientificRx Clarifying Peel Pads, which contain lactic, salicylic and mandelic acids to keep blemishes at bay. "They help to polish and buff the surface of the skin for optimal desquamation, or cell turnover," he says.

There are also prescription-only lactic acid products, including Lac-Hydrin, which Dr. Levine often uses when treating early acne in children or young teens. "I also use it to treat keratosis pilaris, a skin condition many people have that manifests in small bumps on the outer upper arms, or sometimes the thighs or face," she adds.

Can it be used all over the body too, or only on the face?

"Not only is great for the face, but also the legs and arms," says Dr. Beer. "I like AmLactin with 12-percent lactic [Dr. Werschler also recommends this one] and Lac-Hydrin for the body, as they both contain good amounts of lactic acid."