



GLYCOLIC ACID BACKGROUNDER

What is glycolic acid?

Glycolic acid is a type of alpha hydroxy acid. Alpha hydroxy acids have been used for thousands of years to create skin rejuvenating products because of their ability to exfoliate dead skin cells, resulting in healthier, younger-looking skin.

Glycolic acid is derived from sugar cane, but also can be made synthetically. Because of its smaller molecular size, glycolic acid is believed to be more effective for skin care than other alpha hydroxy acids. When used correctly, glycolic acid can improve the look and feel of skin and reduce the appearance of fine lines, wrinkles and brown or age spots.

How does glycolic acid work?

Glycolic acid works in a number of ways, primarily through its exfoliation properties. Once applied, glycolic acid penetrates the upper layer of the epidermis, weakening the binding properties of the lipids that hold dead skin cells together. This action allows the layer of dead skin cells to "dissolve," revealing the underlying skin.

Glycolic acid is particularly effective for skin rejuvenation because of the following unique properties:

- Exfoliates by thoroughly removing the uneven, "rough" layer of dead skin cells, resulting in a more compact stratum corneum (outer layer of the epidermis)
- Penetrates through the upper layer of skin to begin exfoliation from the bottom up, diminishing the appearance of fine lines and wrinkles
- Increases moisture retention by binding with water and pulling it through the stratum corneum, improving skin hydration and overall skin health

Glycolic acid also reduces the amount of surface skin oil, which aids in the removal of blackheads and other skin impurities and may help stimulate collagen production within the dermis, the layer of the skin located below the epidermis.



For use in skin care products, glycolic acid may be buffered to raise the pH of glycolic acid closer to the pH of skin. The glycolic acid in VIVITÉ™ skin care products utilizes a proprietary buffering process called partial neutralization, which is a technology that is the result of more than 10 years of scientific study.

How does partial neutralization work?

Partial neutralization optimizes pH balance to match the natural pH of skin and allows the glycolic acid to release during an extended period of time to provide the benefits of higher concentrations of glycolic acid with minimized skin irritation. The physician-strength glycolic acid in VIVITÉ™ is safe for at-home use, because it undergoes the partial neutralization process.

What is GLX Technology™?

GLX Technology™ is a highly specialized blend of hydrating glycolic acid and powerful, natural antioxidants. **GLX Technology™** works to renew skin and enhance the skin's natural production of hyaluronic acid, stimulating epidermal growth factor and collagen.

How is glycolic acid applied?

Glycolic acid is applied topically either at home or in a physician's office. Home application includes the use of products purchased over-the-counter or at a physician's office. A typical home treatment may include a daily facial cleanser and moisturizer that contain glycolic acid. Stronger concentrations of glycolic acid may be applied by an aesthetician or a physician in the form of a chemical peel or in-office procedure.

Based on the desired effect, varying concentrations of glycolic acid are available:

- **Physician-dispensed products** – Medical strength glycolic acids start at a concentration of 10 percent. Trained professionals either administer treatments in-office or provide topical products for at-home use. VIVITÉ™ products, with concentrations of up to 20 percent glycolic compound, are physician-dispensed and available for use at home.
- **Glycolic-acid peels** – Aestheticians are trained to administer glycolic-acid peels containing a 20 to 30 percent concentration of glycolic acid. Chemical peels at this level offer results that are similar to microdermabrasion. Generally, aestheticians will recommend a series of peels to achieve desired results.
- **Physician-administered procedures** – Physicians may administer glycolic-acid procedures containing a 50 to 70 percent concentration of glycolic acid. These treatments are intended to erase the appearance of fine lines and wrinkles.



- **Over-the-counter products** – Consumers can purchase products containing a glycolic acid concentration of three to 10 percent. The average glycolic acid products available in drug stores are in the three percent range.

What is VIVITÉ™?

VIVITÉ™ is an advanced skin care line that revitalizes and shields skin to reduce the signs of aging. A scientific advancement in skin care, VIVITÉ™ skin care products are clinically shown to reduce fine lines and wrinkles, and is the only skin care line to include proprietary **GLX Technology™**, which creates a highly specialized blend of hydrating glycolic acid and powerful, natural antioxidants. Developed by Allergan, a leader in anti-aging skin care, VIVITÉ™ is the only luxury physician-dispensed skin care regimen that works through **GLX Technology™** to renew skin and enhance the skin's natural production of hyaluronic acid, stimulating epidermal growth factor and collagen.

The VIVITÉ™ skin care line includes the following products:

- **Exfoliating Facial Cleanser** containing 15 percent glycolic compound, salicylic acid and exfoliating microbeads to cleanse, smooth and refine skin
- **Daily Antioxidant Facial Serum** containing 15 percent glycolic compound, green tea, pomegranate, chamomile and aloe to moisturize and protect skin
- **Night Renewal Facial Cream** containing 20 percent glycolic compound, vitamin C, vitamin E and superoxide dismutase to reduce fine lines and wrinkles
- **Revitalizing Eye Treatment** containing 10 percent glycolic compound, caffeine, peptides and light-reflecting interference pearls to reduce puffiness around the eyes and decrease the appearance of crows feet

Products in the VIVITÉ™ line have glycolic compound concentrations of up to 20 percent, whereas most over-the-counter skin care products have only a three to 10 percent concentration. However, the physician-strength glycolic acid in VIVITÉ™ is safe for at-home use, because it undergoes Allergan's proprietary process called partial neutralization, allowing for less irritation and greater efficacy.

Safety

When used with caution and according to the directions, products containing glycolic acid are generally safe. The amount of glycolic acid in the product and the pH balance of the product's formulation are the determining factors of a product's strength and potential for irritation. Exfoliation due to any product, including glycolic acid, causes the skin to be more susceptible to the elements and must be protected. If a daily glycolic acid is used, it is recommended that a sunscreen be applied.



For more information

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