

## Questions and Answers about Alpha Hydroxy Acids

### 1. What are alpha hydroxy acids (AHAs)?

AHAs are naturally occurring substances found in various fruits, sugar cane and sour milk, as well as in the body. These substances have a beneficial effect on the skin. Glycolic acid, the AHA found in sugar cane, has the smallest molecule and is considered by many researchers to be the most adaptable for cosmetic purposes.

Experience has shown that continued use of glycolic acid formulations improves the appearance of skin with fine facial lines, helps manage oily and acne prone skin problems, and reduces discoloration of the skin.

### 2. Who discovered AHAs and how do they work?

In the past, women applied old wine and sour milk to their skin to improve its appearance. They didn't know they were using mixtures that contained AHAs. Recently, scientists have begun to look into AHAs to see why they help the skin and to find out how they work. Research has been done all over the country in both private physicians' practices and laboratories at major universities to demonstrate the significant benefits of this new skin care discovery.

Glycolic acid works by loosening the bond that holds together the top layer of dead skin cells. By helping the body remove the excess build-up of these dead cells on the surface of the skin, glycolic acid allows newer, fresher, healthier looking skin to emerge.

### 3. Where are glycolic acid products available?

Skin care salons and cosmetic companies are allowed to use these products, usually containing 2% AHA. Qualified skin care specialists (estheticians) are licensed to perform micro peels with concentrations as high as 30%. Only physicians are licensed to use 70% glycolic acid. Glycolic acid home care products are also available at salons and physicians' offices. They are an important component of a home skin care program. By themselves you will see minor improvement but with a series of 70% glycolic acid peels the results will be much faster and more dramatic.

### 4. What is the difference between salon glycolic treatment and physician glycolic peeling?

Physician glycolic peeling is much stronger than salon glycolic treatment. Salon glycolic treatment can be used for minor skin conditions such as acne, rough textured skin, fine lines, clogged pores, and minor hyperpigmentation (splotching). For more sun-damaged, more wrinkled, and severely hyperpigmented skin, physician glycolic peeling is indicated. Many patients may use both, starting with physician peeling, and using salon glycolic treatments for long-term maintenance. You must realize that no

type of glycolic acid peel will rid your face of deep wrinkles, but other treatments such as laser resurfacing are available.

5. How does glycolic acid help with oily and acne prone skin?

As dead cells build up around hair follicles, they interfere with the natural drainage of oils, causing the hair follicle to clog and fill. The resulting blockage can lead to several problems, including blackheads, whiteheads and acne breakouts. By loosening the bond holding together the excessive build-up of dead cells, glycolic acid helps remove the blockage and cleanses the pores, allowing the skin to rid itself of these oils naturally.

6. How does glycolic acid help with skin discoloration such as age spots?

One of the problems with previous age spot removal products is that the bleaching agent, typically hydroquinone, could not get past the thick outer layer of dead cells to reach the melanocytes, the source of the pigmentation. When hydroquinone is combined with glycolic acid, glycolic acid removes the excess buildup of dead cells on the surface of the skin. This allows the bleaching agent to get to the melanocytes and reduce the production of melanin, resulting in a gradual fading of pigmentation.

7. Does glycolic acid get rid of or prevent wrinkles?

Since glycolic acid removes old dead skin cells, the skin appears more youthful and has a healthy glow. With continued use, the appearance of fine facial lines will be reduced. If people start using glycolic acid products at an early age, their skin will retain its youthful appearance longer. It will not however take away deep wrinkles or sagging skin.

8. Are AHA products like Retin-A?

Their cosmetic effects are similar, but they don't cause the redness or flaking of the skin that Retin-A can cause. Also, Retin-A is by prescription only.

9. Do AHAs make the skin sensitive to the sun?

No. AHAs do not cause photosensitivity. Retin-A does. However, sunscreens should be worn to protect the skin from further damage.

10. Are there any complications with the use of skin care products containing glycolic acid?

The physician strength peel may produce a tingling sensation when first applied, but that usually disappears in a minute or two. The time may vary depending upon the individual's skin. Some people experience a slight reddening after the exfoliation, particularly if the skin is extra sensitive. Most people experience only smoother and

softer skin. Redness and tingling of the skin may also occur with home use products, but typically lasts only a minute or less.

With all glycolic and other AHA products, initial use may cause an apparent increase in acne breakout. This occurs because the product is actively cleansing the pores and therefore accelerating the process of bringing trapped oil and debris to the surface. This should clear up within a few weeks, after which regular use of the product will keep the pores clear and acne breakouts should be markedly reduced. In order to ensure the highest degree of purity, these skin care products are developed, formulated and produced to the strictest standards. Every product is also hypoallergenic, non-comedogenic and fragrance-free.

Nonetheless, a small percentage of the population may be ultra sensitive to AHA or one of the other ingredients in some of the products, particularly hydroquinone, the bleaching agent. These people may experience a burning sensation or an allergic reaction to one of the ingredients after application. In case of an extreme reaction to any product, patients should discontinue use of the product immediately and call their skin care professional or a physician if the symptoms persist.

11. How should home care glycolic products be used?

All home use glycolic acid products should be used once or twice daily, at night alone or in the morning and at night. The skin should always be cleansed thoroughly before the product is applied. Glycolic acid products do not replace other skin care products such as skin cleansers and moisturizers. They are formulated to be used in conjunction with the regular skin care regimen the individual may have developed with the help of his or her esthetician or other skin care professional. Make-up may also be used over glycolic acid products.

12. What are the long-term effects of continual use of AHA products?

Since AHAs are non-toxic substances found in natural sources such as fruit, sugar cane, and sour milk, as well as the body, researchers do not anticipate any problems as a result of long term use of AHA products.

13. Can I make my own AHA solution from fruit juice or milk?

No. AHA substances are not easily extracted and must be used in properly balanced formulations to achieve worthwhile results.

14. What happens when use of an AHA product is stopped or suspended?

Unlike the case with simple moisturizers, the improvement in appearance that users of these products achieve will not immediately disappear once usage stops, and residual effects may last indefinitely. However, in the absence of AHA, dry and rough dead skin cells can once again build up on the outer layer of the skin and the original problem may reoccur. With uninterrupted use, the benefits can be maintained.

15. Can both men and women use AHA products? Can people of all ages use it?

Men and women of all ages should experience beneficial results with AHA products. And none of these products contains a fragrance. Care should be taken when using any skin product, including AHA products on very young children and people with ultra-sensitive skin.

16. What is the future of AHAs?

Qualified physicians working hand in hand with estheticians have advanced the results of the use of AHAs. Combining home products, facials, and glycolic acid peels has made a significant contribution in fighting the skin problems and effects of aging of the skin we all face.