



"CHEMICAL EXFOLIATION: A HANDY AND GENTLE WAY TO REJUVENATE YOUR SKIN"

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Abstract

When it comes to glowing skin, exfoliation is the key! It's the one step in your skincare routine that dives deep into your pores and gets the job done. It does this not only by removing dirt and grime but also by breaking down dead skin cells and sloughing them off your skin. When dead skin cells sit on your face, they tend to contribute towards dull and lack-lustre skin. Plus having a layer of dead skin cells prevents your skin from absorbing your skincare products properly — therefore no matter how many products you slather on your skin, this layer will reduce its efficacy. The manner in which you exfoliate also plays an important role. But we should be careful while doing this process for example the chemicals we select, the manner we do it and the time period for application of exfoliant.

Yes, exfoliating is good. But, over-exfoliating is detrimental to it. While your skin may feel good, overdoing it will result in flaking, peeling, and redness.

Keywords: Exfoliant, chemical exfoliation, dead skin, flaking, peeling, anti-aging skincare products.

Introduction

Exfoliating agents are gritty solids which provide sensory signals of cleansing when rubbed into the skin. The process of exfoliation eliminates the old cells and let the new ones emerge for skin renewal. Furthermore, they are used to combat aging signs and to reduce dullness of the skin, and hence, are becoming increasingly popular among consumers.

But, how does exfoliation happen? What are the different types of exfoliating agents available today? And, what you should consider while formulating with exfoliating eliminates the dead skin. The following acids can be used to treat these common skin concerns across each skin type. Two types of exfoliation exist: physical and chemical. The chemical type consisting of a range of different acids, has become increasingly popular in recent years. But there's still some confusion over what it actually is and which acids are best to use. The following acids can be used to treat these :

Azelaic, Carbolic, Citric, Galactose, Glucono-lactone, Glycolic, Lactic, Lactobionic, Malic, Mandelic, Retinoic, Salicylic acid, Tartaric acid.

What exactly is a chemical exfoliant?

Chemical exfoliants are acids that get rid of dead skin cells. They come in various concentrations.

Weaker formulas can be bought over the counter, while stronger ones are usually applied by a dermatologist in the form of a chemical peel.

They work by breaking the bonds that hold skin cells together, says board-certified

plastic surgeon Dr. Michelle Lee.

“As those bonds are broken, the top layers of the skin cells shed, revealing regenerated skin,”

With regular use, skin feels smoother and looks more even in tone, pores are unclogged, and signs of aging may be less apparent.

How do they differ from physical exfoliants?

While acids chemically remove the outer layers of the skin, physical exfoliants do so manually. Taking the form of scrubs, brushes, and procedures like dermabrasion, physical exfoliation can be too harsh for some. It also doesn't penetrate as deeply as the chemical version and therefore may not be as effective.

There are three main types of chemical exfoliant. All are acids, but some are gentle and less penetrative than others.

The main thing to remember is the higher the concentration and lower the pH, the more intense the exfoliative effect.

Alpha hydroxy acids (AHAs)

AHAs include the likes of glycolic, lactic, citric, and malic acid. They tend to come from fruits, but can also be produced synthetically.

With the ability to dissolve in water, they work on the surface of the skin to improve its texture, notes dermatologist Dr. Hadley King.

Glycolic and lactic acid are commonly used AHAs in skin care. Opt for a concentration of between 5 and 10 percent for high effectiveness.

Beta hydroxy acids (BHAs)

BHAs are oil-soluble, so they can penetrate your pores, as well as work on the skin's surface, explains King.

These deeper-working acids not only benefit skin texture, but also unclog pores and remove acne-causing sebum.

Examples of BHAs include salicylic acid and tropic acid.

Poly hydroxy acids (PHAs)

PHAs work in a similar way to AHAs. “The difference is that PHA molecules are larger, so they cannot penetrate as deeply,”

This is why they're viewed as less irritating than other chemical exfoliants, particularly AHAs.

And although they don't go as deep, PHAs — like gluconolactone and lactobionic acid — have additional hydrating and antioxidant benefits.

How do you know which type to use?

AHAs are often used to improve skin tone and mild areas of discoloration.

BHAs, on the other hand, are ideal for oily or acne-prone skin due to their pore-unclogging properties.

If you have highly sensitive skin, a less intrusive PHA exfoliant may be the route to go down.

Mechanism of exfoliation:

Exfoliating is extremely significant, but sometimes if you do it incorrectly you can seriously damage your skin. Want to know how to exfoliate face without causing any harm.

Step 1 - Tie Your Hair Back

Before cleansing your face, make sure to pull your hair back and secure it with a headband to prevent it from falling on your face. A lot of physical exfoliators contain tiny particles that can be messy if it gets in your hair. Plus, tying your hair back allows you to get into the nooks and crannies of your face, sans any disturbance from your lovely locks.

Step 2 - Cleanser

Start the process by cleansing your face with a gentle face cleanser or face wash. Massage the product on your face and neck, as it lathers up. Rinse it off with cold to lukewarm water (avoid hot water) and pat dry with a microfibre cloth.

Step 3 - Exfoliate

Physical exfoliator - Take a small amount of your scrub and spread it across your face. Use your fingertips to gently massage it in circular motions. Don't over scrub or go at it aggressively as this will cause your skin to become irritated and sensitive. Wash off with lukewarm water and pat the excess water off and let the dampness air dry and settle.

Step 4 - Face Serum

When you use either exfoliants you need to follow it up with a mild face serum. As your skin can get a little tender after exfoliation, you might want to opt for a gentle and moisturising face serum. If you do apply a chemical exfoliant, make sure your face serum doesn't contain active ingredients that'll either react to the exfoliant or make it counterproductive.

Step 5 - Moisturiser

The most important step in this entire process of exfoliation is to moisturise! Since exfoliation can dry out your skin a little, you need to ensure that you replenish any lost moisture. Massage your moisturiser on your face and neck — and watch as your skin instantly absorbs it all in. If you're stepping out, make sure to top off with sunscreen.

Exfoliator On Your Face

Remember to tread lightly when exfoliating your face. The skin on your face is rather thin and sensitive, so treat it with all the tender, loving, care when doing so.

Effects of over-exfoliating:

"Over-exfoliating is one of the biggest mistakes we see people making," says Dr. Aanand Geria, a dermatologist with Geria Dermatology. "Generally, skin should be exfoliated only one to two times per week to help expedite skin cell turnover without causing damage."

Yup, one to two times per *week*. If you've been slathering on the exfoliating acids daily, there's a good chance your skin is begging for a break.

Luckily, it should be fairly easy to tell if you're overdoing it on the exfoliators. Classic signs include:

- irritation
- redness
- otherwise inflamed skin

Eventually, your complexion can become dry and flaky. You may even develop a rashlike texture, leading to uneven tone (like patchy, red blotches). Breakouts are another common reaction, especially small, rough, bumpy pimples.

Over-exfoliation recovery 101

- Stop all foaming cleansers, retinol products, and physical or chemical exfoliators.
- Switch to a mild cleanser and a fragrance-free moisturizer.
- Spot treat extremely red or raw areas with a rich emollient, like Aquaphor or Aqua Veil. You can also use a hydrocortisone cream or aloe gel.

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Signs of over-exfoliation

irritation, burning, or peeling

- redness and inflammation
- breakouts, especially small pimples
- increased sensitivity to other products in your routine

There *is* one symptom of overuse that's harder to pinpoint: The skin may develop a tight, waxlike texture, which — get this — can be confused for a healthy glow. In reality, it's anything but.

"It can look waxy from wiping away skin cells and natural oils, allowing premature exposure of underlying skin," Geria says. "The skin appears as if it has a radiant shine. However, it is in fact very dry and exposed."

And overexposure can devolve into painful cracking and peeling, explains Geria. For reference, a healthy glow will always look plump and moisturized, not dry, thin, or waxy.

"You may also see increased sensitivity to application of subsequent products in a regular daily regimen," says Dr. Craig Kraffert, a board-certified dermatologist and the president of Amarte. In other words, the remainder of your skin care routine may suddenly cause redness, burning, or peeling.

But don't blame it on your other products! It's (probably) all the exfoliator's fault.

Like we mentioned above, some of these symptoms have a tendency to make you feel like you need to exfoliate more, but resist. Here's what you should do instead.

What to do if you've over-exfoliated

If you note any of the above reactions after exfoliating, whether from an overzealous face-scrubbing session or an application of acids, Geria advises the first thing to do is stop exfoliating until your skin has healed and is at its baseline texture.

"Baseline texture" will differ from person to person; in general, it just means the texture your skin had *before* overexposure. If you've always been acne prone, that will be your baseline texture. You're really just waiting for the signs of over-exfoliation — redness, inflammation, peeling — to fade.

Conclusions:

Little-known fact: Your skin exfoliates itself. The natural process is called desquamation. It usually takes 28 days from start to finish^{Trusted Source}, during which time new skin cells develop, mature, and shed. This means that some people, with the right routine and maintenance, might not have to exfoliate at all.

But, of course, it's not that easy, especially in an urban environment. Plenty of interruptions can slow the skin cell turnover process, from a weakened skin barrier or imbalanced oil production to pollution particles.

That's where exfoliating products typically step in to lend a helping hand. "Proper exfoliation leaves a fresh, healthy, and fully 'cleansed' epidermal surface," Kraffert says.

Basically, exfoliation *can* deliver clearer skin when done correctly... but if you mix and match different types of exfoliators or use a single product too often, your favorite exfoliants have the potential to do more harm than good.

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