

## Chemical peel: An overview

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### Abstract

Chemical peeling is one of the most common and widely accepted cosmetic procedure for treating skin scars and marks. It involves application of varying percentage of chemical or its combination. Various chemical peels are formulated based on specific requirements of the skin condition to be treated. It's a minimally invasive and safe procedure to get rid off unhealthy and unpleasant skin conditions.

**Keywords:** Chemexfoliation, Derma peeling, Alpha hydroxy acids.

### Introduction

A chemical peel also called as chemexfoliation or derma peeling. It uses a chemical solution to improve the texture and tone of one's skin by removing the damaged outer layers. Chemical peel is a minimally invasive procedure.

Acne is a common inflammatory condition and pathogenesis of acne vulgaris is multifactorial. The major identified factors that are involved in pathogenesis of active acne lesion formation and scarring are: excess sebum production, follicular epidermal hyperkeratinisation, the proinflammatory effects of Propionibacterium acnes and other normal skin flora and immunological reactions.<sup>1</sup> Although chemical peels are used mostly on the face, they can also be used to improve the skin on your neck and hands. Sun exposure, acne or just getting older can leave your skin tone uneven, wrinkled, spotted or scarred.

A chemical peel is one of the most cost-effective ways to improve the appearance of your skin. The

potential result of the chemical peel depends on the type of chemical and technique used.

### Uses

A chemical peel treatment is recommended in various conditions like:

1. Acne or acne scars.
2. Fine lines and wrinkles.
3. Irregular skin pigmentation.
4. Rough skin and scaly patches.
5. Certain scars.
6. Sun-damaged skin (American society of plastic surgeon).

### Types

The most commonly used superficial and medium depth peeling agents in acne are salicylic acid, glycolic acid, lactic acid, ( $\alpha$ -hydroxyl acids) Jessners peel, TCA etc.<sup>2</sup> There are primarily three types of peels depending on depth of penetration of its chemical constituents

**Table 1: Superficial, medium and deep**

Type of peel	Healing time	At-home care	When to wear makeup	Follow-up visit
<b>Refreshing or lunchtime peel</b>	1 to 7 days. Skin will be red. After the redness disappears, scaling may develop, which lasts 3 to 7 days.	Lotion or cream applied until the skin heals, followed by daily use of sunscreen.	Usually immediately after the peel, but sometimes the next day.	No. However, 3 to 5 peels may be necessary to give you the desired results. These peels may be repeated every 2 to 5 weeks.
<b>Medium</b>	7 to 14 days Skin will be red and swollen. Swelling worsens for 48 hours. Eyelids may swell. Blisters can form and break open. Skin crusts and peels off in 7 to 14 days.	Daily soaks for a specified period. Apply ointment after each soak. Take an antiviral medication for 10 to 14 days. Apply lotion or cream. Total avoidance of the sun until skin heals.	After 5 to 7 days, you can wear camouflaging makeup.	Yes. Follow-up visit required after the procedure.
<b>Deep</b>	14 to 21 days.	4 to 6 daily soaks while	At least 14 days	Yes. The next day, the

	Area will be bandaged.	healing. For 14 days, apply ointment after each soak. After 14 days, apply thick moisturizer as directed Take an antiviral medication for 10 to 14 days. Total sun avoidance for 3 to 6 months.	before you can apply makeup.	dermatologist will want to see you. Several follow-up visits are required during the first week.
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### Suitable candidates

The right chemical peel for you depends on your skin goals. Each peel uses a different chemical solution. Deeper chemical peels produce more dramatic results and deeper skin rejuvenation but also involve longer recovery times.<sup>3</sup> For exfoliation and glowing skin, a light chemical peel is typically used. Medium peels are best for pigment irregularities, like age spots, and deep chemical peels can penetrate deep skin layers and combat fine wrinkles. A well-versed cosmetologist can help you choose the right treatment option for your goals.

### Safety and efficacy of peels

Chemical peels may be safe for your skin tone, but contact an experienced provider to help you decide. The safety and efficacy of any chemical peel are dependent upon preparation, depth, post care, and the experience of the clinician administering the peel. When treating African-American skin and other ethnic skin types, prepping the skin for a chemical peel is a necessity. Patients must be prepped for at least four weeks prior to the peel, are educated extensively on how to care for their skin post peel, and are encouraged to adhere to their prescribed skin care regimen to obtain optimal results.

### Duration of peel results

How long your results will last varies based on the strength of the chemical peel and your skin sensitivity. A very light peel to refresh your skin may need to be repeated monthly. A slightly deeper one that would also help lift off discolorations could be repeated every three months. A TCA peel, that goes deeper to lift away sun damage, would only need to be repeated when the signs of sun damage return.

### History taking prior to peel

Before doing a chemical peel, be sure to take the following information from patient:

1. If you are taking or have ever taken isotretinoin, a medicine prescribed for severe acne.
2. All other medicines you take — or have recently taken like antibiotics, acne medicines and over the counter medicines as well, such as aspirin.
3. Frequent cold sores or cold sores in the past.
4. If your skin scars easily.

### Procedure of peel

Before getting a chemical peel, some patients need to follow a pre-peel skin care plan for 2 to 4 weeks. This plan can improve results and reduce potential side effects. The dermatologist/cosmetologist will suggest when necessary.

On the day of peel, the patient will first be prepped for the treatment. This includes cleansing the skin thoroughly. If you will have a deep peel, you will receive general anaesthesia, which will put you to sleep. A deep peel must be performed in a surgical setting.

### Downtime

Some chemical peels require downtime. After a medium or deep peel, you will have downtime. A deep chemical peel requires recuperation at home for 2 to 3 weeks. Once your skin heals, you will see the results. Healing time ranges from 1 day for a refreshing or lunchtime peel to 14 days or longer for a deep peel. To get the results you seek from a refreshing peel or lunchtime peel, you may need to have 3 to 5 peels.

Most results are not permanent because our skin continues to age. If you have lots of sun-damaged skin or precancerous skin growths called AKs, you will likely continue to see new spots and growths on your skin.

### Side Effects / Safety

Proper selection of patients, timing of peel, and neutralization on-time should ensure good results and no side effects. Superficial peels using alpha hydroxy acids increase the epidermal activity of enzymes, leading to epidermolysis and exfoliation.<sup>4</sup>

Some patients develop:

1. Persistent redness that may last for months.
2. Temporary darkening of the skin.
3. Lighter skin colour (medium and deep peels).
4. Scarring (very rare)

If serious side effects occur, it is often because the patient did not follow the post peel instructions. Your risk for developing an infection or scarring increase dramatically if you:

1. Fail to protect your skin from the sun.
2. Fail to care for your wound as instructed.
3. Scratch the treated skin or pick off a scab.
4. Apply makeup before your skin heals.

5. Don't heed your dermatologist's advice and use a tanning bed or other type of indoor tanning.

To maintain results, you can repeat mild and medium chemical peels. Your dermatologist can tell you how often you can have a repeat treatment. A person can have only one deep peel.

Even people who have skin of colour can safely have a chemical peel — but they should see a dermatologist who has expertise using chemical peels to treat darker skin tones. Without this knowledge, people who have skin of colour (i.e., African American, Asian, Latino) can develop permanent pigment problems.

#### After Care

To help their patients get the best results, dermatologists also share these tips:

1. Use the moisturizer as directed to keep your skin moist and supple. If your skin dries and cracks, it can scar.
2. If your skin burns, itches, or swells, contact your dermatologist. Rubbing or scratching skin treated with a chemical peel can cause an infection.
3. Do not use a tanning bed or other type of indoor tanning. Your skin will not heal properly.

**After your skin heals, apply sunscreen every day.** This will help you maintain results. In order to avoid post-inflammatory hyperpigmentation and scarring in dark skinned patients, it is important to avoid facial scrubs, depilatory creams, waxing, bleaching, microdermabrasion, and LASER hair removal for at least one week before the procedure.<sup>5</sup>

#### Conclusion

Skin, being the cover of our body and obviously, face the first to be encountered, necessitates to keep it hale and healthy. Everyone has a right to look good and feel good. As appearance is very much linked to confidence in our society, we must try to take good care of our skin. We should hope and expect skin and facial treatment to be covered under insurance, then the day is not far when majority will enjoy this benefit and lead a glowing life. Careful patient selection, priming of the skin, standardization of peels, post-peel care and maintenance programmes are essential to achieve excellent results.<sup>6</sup>

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