

Acne Scar **Treatments:** Personalized strategies

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Acne scars can result from previously active acne or from squeezing and manipulation. Thick and elevated scars are called *hypertrophic*, while indented or scooped out scars are called *atrophic*. There are many types of atrophic scars based on their shape and whether they are tethered to deeper levels of skin.

Careful assessment of the types and shapes of scars and their distribution will help determine the most appropriate treatments for their correction.

While treatments can help, none completely eradicate acne scars. Therefore, realistic expectations will be important in discussing possible outcomes.

Skin Care Programs

A well-designed acne skin care program starts with the right acne **cleanser** (containing anti acne ingredients but gentle enough to not irritate), **moisturizer** to help maintain skin health without feeling oily, and **sunblock** that is noncomedogenic and fragrance-free containing minerals.

For *atrophic* acne scarring, I would recommend adding active agents that help to increase skin collagen formation: vitamin C and vitamin A (retinol).

For *hypertrophic* acne scarring, I would recommend considering scar treatment gels (Cicaplast, V-stat, Mederma), silicone adhesive pads and/or cortisone injections.

Prescription Medications

Active inflammatory acne can lead to increasing scarring. Therefore, reducing acne scarring, both *atrophic* and *hypertrophic*, requires intensive and effective treatment of active acne.

For acne scarring *atrophic*, the most important medications are topical retinoids. My colleagues and I have shown that these medications can improve acne scarring *atrophic* in the presence or absence of active acne. Therefore, topical retinoids should be the beginning and end of any acne scar correction program.

Procedural Treatments

Procedures for atrophic acne scars depend on the type of scars, their distribution, and areas bothersome to the patient. The steps below outline the stages of scar repair depending on specific features.

Step 1: Release tethered scars

With scars that are bound down or tethered to deeper layers, they will not elevate with other treatments unless the tethers are released. This is done by a process term subcision.

What is subcision?

Subcision is a minor surgical procedure using a hypodermic syringe or metal cannula to release tethered scar tracts underneath the skin surface.

What can you expect?

Treatment consists of 1-4 sessions one month apart. Each session should take 30 to 40 minutes. The number of sessions required depends on the extent of tethering and response to treatment. Depending on the sites of scar tethers, insertion sites are numbed and instruments are inserted to initiate subcision. The instruments will be manipulated in a horizontal dimension just underneath the skin surface to release tethers. It may be mildly to moderately uncomfortable depending on the sites and proximity to facial nerves.

On completion your face is cleansed, and a post care cream applied. Expect to see improvement within a few days of treatment.

Bruising may develop at sites of insertion and subcision. This should resolve in 7 to 10 days and can be treated with one of our lasers for more rapid reversal. There is a rare risk of nerve injury with this procedure.

Who should not have it?

Caution is required in those with allergies to numbing injections, easy bruising (including use of anticoagulants), and those with prior facial injuries from burns or trauma.

What maintenance care is required?

Repeated subcision after the initial series is not usually required but can be considered on an individual basis.

Cost

\$600 for 1st or single session (\$450 for subsequent sessions).

Step 2: Select treatments for atrophic scar types

The cross section of atrophic scars has been simply described as the following three patterns: ice picks or sharp V's, saucer shaped or rounded U's, and boxcars. Most patients present with all of these and hybrids of them as well. Treatments specific to each type include:

- Icepick scars: TCA cross technique
- Saucer scars without tethering: dermal fillers
- Boxcar scars: initiate with subcision
- Scars of multiple types: radio frequency microneedling (Infini™).

Platelet rich plasma (PRP) can be added to any of the treatments above to enhance healing and stimulate collagen information.

a. Trichloroacetic acid (TCA) cross technique

Treatment indications

This treatment is used for icepick scars. TCA is a chemical that damages the skin surface and is used to wound the depth of the icepick scar. This leads to a wound healing response and increases collagen formation helping to lift the scar and make it more shallow.

What can you expect?

Your skin is first cleansed to remove makeup and oil. TCA is then applied to each icepick scar consecutively. The sensation progressively starts to feel like hot chili pepper spots. The hot sensation subsides fairly rapidly within a few seconds. Treated areas will become red and a swollen for two to four days. They progressively slough or become scaly and crusted as part of the normal process of healing.

Immediately after, a cooling pack will be applied on your skin along with a post care healing cream. Instructions on gentle cleansing and frequent use of moisturization will be recommended along with specific products.

Who should not have it?

Caution is advised for patients who are pregnant.

Cost

Starting at \$400 for minor areas; \$700 for extensive (20% off 2nd and subsequent treatments)

b. Dermal fillers

Treatment indications

Dermal fillers are used to elevate saucer shaped scars that are not tethered. A simple way to determine if scars will respond is to apply lateral pressure to the edges of the scar. If the scar becomes less apparent, it will likely improve with dermal fillers.

What can you expect?

Your skin is first cleansed to remove makeup and oil. Dermal fillers containing hyaluronic acid will be injected underneath the scar from different directions to induce elevation. You will feel a pinprick sensation at each entry site which should lessen as the fillers contain numbing.

Hyaluronic acid fillers are not permanent but can result in improvement lasting six months or more. I avoid the use of permanent fillers as they can become more apparent with skin aging and increase the risk of lumps called nodules. There is a risk of bruising which can last up to a week, but which can be reversed quickly with one of our lasers.

Immediately after, a cooling pack will be applied on your skin along with a post care healing cream. Instructions on gentle cleansing and frequent use of moisturization will be recommended along with specific products.

Who should not have it?

Please inform us if you are allergic to lidocaine. We do have fillers that do not contain this numbing agent.

Cost

Starting at \$500 per syringe
(20% off 2nd and subsequent syringes)

c. Radio frequency microneedling (INFINI™)

Treatment indications

Radio frequency microneedling (INFINI™) has been clinically proven to increase collagen production in the skin, helping to reduce wrinkles and re-surface skin. This leads to smoother skin. INFINI is safe and effective for all types of skin all year round. It works on tanned skin as well. This treatment can lead to skin lifting and more collagen formation.

For atrophic acne scars, this treatment is useful as the first option in a strategy of treatments in patients with extensive scarring of multiple atrophic scar types.

What can you expect?

Your skin is first cleansed to remove makeup and oil. You will have a topical numbing cream applied for 1 hour prior to treatment. The handpiece will be applied over sequential areas of your face to ensure treatment of affected areas. There is a pinprick sensation with each activation. INFINI™ was designed to maximize comfort with ComfortFlow technology. Compared with other devices (such as CO2 laser), many find the INFINI™ much more comfortable. Treatment time is usually between 20 to 30 minutes.

Immediately after, a cooling pack will be applied on your skin along with a post care healing cream. Instructions on gentle cleansing and frequent use of moisturization will be recommended along with specific products.

Initial redness after treatment subsides quickly within the first hour. It takes 24-36 hours for the residual redness and swelling to dissipate. Rarely, patients report extended redness for a few more days. There are no activity restrictions. There is a risk of bruising and persistent imprints of microneedles. This resolves with time and topical treatments.

Who should not have it?

Caution is advised for patients on anticoagulants.

Cost

Starting at \$700 for first session; \$400 for subsequent sessions

Step 3: The Final touch

For the final treatment, we recommend Fraxel™ to improve tone and texture of the skin.

Treatment indications

Fraxel™ 1550nm wavelength is indicated for skin resurfacing procedures; treatment of dyschromia and cutaneous lesions, such as, but not limited to lentigos, solar lentigos, actinic keratosis, and melasma; and treatment of periorbital wrinkles, *acne scars*, and surgical scars.

What can you expect?

Your skin is first cleansed to remove makeup and oil. A topical numbing cream will be applied for 1 hour prior to treatment.

In preparation for treatment, protective eyewear will be provided to you. Skin cooling will be provided for additional comfort. The handpiece will be applied to sequential areas of your face for 4- 8 passes. There is a pinprick sensation with each activation. Treatment time is usually 30 minutes.

Immediately after, a cooling pack will be applied on your skin along with a post care healing cream. Instructions on gentle cleansing and frequent moisturization will be recommended.

Initial redness and swelling lasts 3-4 days, bronzing as pigment is shed for 1-4 days along with exfoliation (skin shedding). Rarely, patients report extended redness.

Post care instructions include use of ice packs, elevated sleep position, gentle cleansing with frequent moisturization and ample fluid hydration. Sunscreen SPF of at least 30 or higher is recommended. There are no activity restrictions otherwise.

Who should not have it?

Caution in those with keloid formation, excessive scarring, or pigmentation. Systemic steroids (e.g. prednisone, dexamethasone), which should be avoided. Caution in patients undergoing isotretinoin acne treatment.

Cost

\$800 for first session; \$700 for subsequent session