

OVERVIEW TO THE APPROACH TO THE TREATMENT OF ACNE SCARRING

Acne scarring is one of the most challenging problems we treat. In spite of our best efforts to treat acne, some individuals develop acne scars. It is necessary to control and treat any active acne before we can begin to treat acne scars.

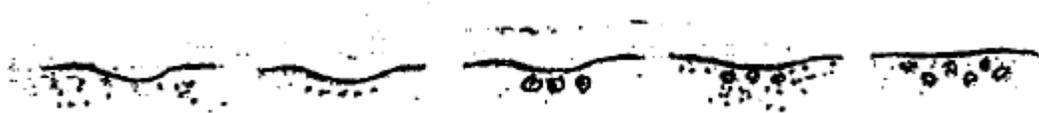
Acne scars come in many different colors, shapes, and sizes. As red acne papules, pustules, and cysts fade, they frequently leave a red/brown discoloration in the skin, which is not a scar and will eventually disappear over a period of weeks to months. Other times, the result could be what we term a depressed scar , an icepick scar , or a thickened scar  all of which are permanent unless treated. Pore size is genetic and cannot be changed. However, comedones (whiteheads and blackheads) which are plugged pores can be treated. "Picking" your skin must be avoided as it may lead to permanent scars.

Basic skin care includes washing with a gentle or soap-free cleanser and applying an oil-free non-comedogenic moisturizer with an SPF30 or greater everyday. Makeup application and type is a matter of personal preference and is perfectly acceptable; but again, these should be oil-free and non-comedogenic. Some makeup may actually make acne scars look worse. In general mineral-based products such as Jane Iredale "hide" scars better than other available cosmetics. Our licensed aestheticians have been trained by us and are available to assist with many of your aesthetic and skin care needs.

Listed below are the most frequently encountered problems and current treatment options:

- Discoloration (dark and light spots): Makeup, oil-free non-comedogenic-sunblock, exfoliating and bleaching creams, topical retinoids (Retin A, Tazorac, Differin), repetitive light chemical peels, microdermabrasion, and IPL (Intense Pulse Light).
- Comedones and pore size: Exfoliating and benzoyl peroxide washes and creams, topical retinoids, repetitive light chemical peels, microdermabrasion, professional extraction (self-picking may cause scarring). Please note that no known treatment can permanently reduce pore size.
- Depressed scars:

Fillers:



Fillers are one of the most common procedures performed by physicians for cosmetic improvement. Their popularity is a reflection of their efficacy, predictability, and safety. The results are almost immediate with little or no "downtime" and most if not all of the few and minor side effects which may occur are short-lived. Fillers are materials injected (as opposed to topically applied products containing similar ingredients) underneath the depressed scar to raise it to the skin surface level. Fillers include those which are collagen-based (Cosmoderm/Cosmoplast), hyaluronic acid (Restylane, Juvederm) and collagen stimulators (Radiesse, Sculptra) and there will be others available in the near future. Each product produces its result in a unique way. Collagen products can be thought of as the "bricks of a wall" providing support; hyaluronic acid products are the "mortar" holding the "bricks" (collagen)

together as well as acting like a sponge to hold water in the skin; and the collagen stimulators are products which stimulate the body to produce its own new collagen. All of the products noted are considered “natural” as they are normally present in the skin. Like the body’s own collagen and hyaluronic acid which are continually being broken down and replaced, these injectable materials are similarly metabolized by the body resulting in a loss of their correction over time. In general, the duration of correction from these products may last 3-24 months with collagen-based products maintaining their correction the shortest duration, hyaluronic acid products, intermediate, and collagen stimulators the longest. These are general guidelines as the duration of the correction is also dependent upon the facial area injected, the size and type of scar, the amount of material injected, and there is also variation among individuals. In general, the safety profile of the filler materials is excellent. Expected consequences of treatment include but are not limited to pain of injection, redness, swelling, bruising, and lumps and bumps. Redness, swelling, and bruising may last several days. If lumps or bumps develop they may last several weeks to several months. These side effects are least common with the collagen-based products, somewhat common with hyaluronic acid products, and most common with the collagen stimulators. None of these products are permanent and regular maintenance treatments are required for continued correction. Permanent fillers and implants are available but have both good and bad attributes. On the “good” side, if you obtain the results you like, it will stay indefinitely. However, we will all continue to age with time in spite of our best efforts but permanent products will not change and could become visible over time. Secondly, if you obtain an undesirable or unexpected result, the only way to correct it is surgical removal of the product, which may result in a scar.

Non-ablative and ablative lasers

Lasers are light beams each with specific and unique characteristics. Non-ablative and ablative lasers are primarily used for photo rejuvenation, smoothing, and skin tightening. These lasers target water in the skin and produce their effect by heating the skin and causing it to tighten. Non-ablative lasers do not leave a crust on the skin after treatment but the results are not very impressive. Ablative lasers leave a crust on the skin, much like a burn, which may take several days to several weeks to heal and obtain better results. Lastly, there are non-laser light sources called intense pulse light (IPL) whose results are similar to the non-ablative lasers noted above. Fraxel is a relatively new laser technology. The concept is to create microscopic invisible holes in the skin similar to aerating a lawn which will fill in and pull the skin tighter. Early results with this laser are very encouraging. Most of these laser procedures require multiple treatment sessions (3-6) at monthly intervals to obtain improvement. The newest and currently believed to be the most effective laser to treat acne scarring is the fractionated CO2 ultrapulse. It employs the same pixilated technology as the Fraxel but is more aggressive resulting in better improvement with less treatments.

Dermabrasion

Mechanical dermabrasion has been the gold standard for the treatment of acne scars since the 1950s. It is the most aggressive procedure available for the treatment of acne scars but not all acne scars are amenable to this procedure. The procedure involves taking a wire wheel and mechanically sanding the skin much like sanding a piece of wood with sandpaper. The result is redness, swelling, oozing, and crusting which may last days to weeks followed by redness which may last weeks to months. Even in the best hands, the improvement with dermabrasion is around 50%.

- Icepick scars

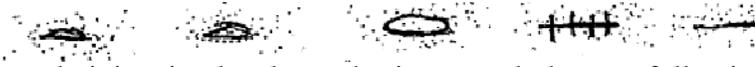
Trichloroacetic acid (TCA)

TCA is a commonly used chemical peeling agent. It is applied with a toothpick to the depth of the scarring causing inflammation which leads to shrinkage of the scar. The treatment is minimally uncomfortable. Immediately after treatment, the skin turns white for several hours following which it becomes red, brown, and crusted lasting several days to several weeks. Rarely, spotted discoloration may last months. This process is generally repeated at 4-6 week intervals until results are obtained, which could be 3-6 treatments. A test area is usually performed to assess response before larger areas are treated.



Punch excision

Punch excision requires administering local anesthesia to numb the area following which an instrument called a punch which looks like a small round cookie cutter, is used to extract the scar following which it is sutured closed much like having a growth removed. Following healing, there is a small line of a scar.



Punch graft

Punch grafts are performed much like punch excision except that once the plug of tissue containing the scar is removed, a new piece of skin (graft) is inserted. This new piece of skin is generally harvested from normal appearing skin either in front of or behind the ear and inserted into the defect much like replacing a broken brick in a wall. When this heals, the skin is usually flush to the surface but might be slightly elevated requiring a minimal procedure such as dermabrasion or cauterization to flatten it back to the surface. When performing punch excision and punch grafting, test sites are done to assess results before many areas are treated.



- Thickened scars



These are generally treated with cortisone injections into the scar which flatten and soften it over time. Usually, several injections are required at monthly intervals to obtain a satisfactory result.

Pulse Dye laser

This particular laser has the ability to flatten scars by reducing blood flow to the scar and slowing down collagen production. This is a non-ablative laser meaning that there is no residual crust on the skin after treatment. There may be bruising which may last several days. Monthly treatments are generally required to obtain a satisfactory response.

Photo rejuvenation:

“Photo rejuvenation is a procedure used to improve overall tone, texture, and color of the skin”:

Levulan/Blu-U, pulse dye laser, intense pulse light, non-ablative and ablative lasers. These are generally procedures performed at 4-6 week intervals for 3-6 treatment sessions capable of producing 30-50% overall improvement in most individuals.

These are some of the most common currently available options for the treatment of acne scars. More aggressive treatments are more likely to provide better results realizing they require more “downtime” and greater risk of side effects. The likelihood of obtaining the results you desire with one treatment is remote and in most cases, several different treatments may be required to obtain optimum results. Regarding acne scarring, or for that matter, any cosmetic procedure, fulfilling patients’ expectations is our greatest challenge. Scars, by

nature, will always be scars and can **NEVER** have the same tone, texture, color, and feel of unscarred normal skin. It is reasonable to expect your skin to look “better” after treatment but better is relative and what looks better to one person may not to another. As noted in our opening remarks, acne scarring is one of the most difficult and challenging problems to treat. Unfortunately, favorable and desired outcomes cannot be guaranteed and sometimes unintended and undesired results occur. If this happens, we will work with you to try to solve the problem.

Our goal is to educate you so that you have a clear understanding of the treatment options, risks, benefits, and alternatives before proceeding with your treatment. We are honored and pleased you have chosen New England Dermatology & Laser Center for your skin care. Together, we will strive to meet your expectations.