

ACNE SCARRING

What's In A Scar

An essential part of the body's natural healing process, scars are the result of the skin's repair of wounds caused by accident, disease, or surgical incision. The more the skin is damaged and the longer it takes to heal, the greater the chance of a noticeable scar.

Before and after treatment of acne scarring.

Typically, a scar will become increasingly prominent at first, then gradually fade; many disfiguring marks which seem unsightly at three months may heal quite satisfactorily if given more time. A scar's visibility will depend on a number of factors, including its color, texture, depth, length, width or direction. How the scar forms will also be affected by an individual's age and by its location on the body or face. Younger skin, for instance, makes strong repairs and tends to overheal, resulting in larger, thicker scars than on older skin. Skin over a jawbone is tighter than skin on the cheek and will tend to increase a scar's prominence. If it is depressed, it will make skin seem shaded, and if it is higher than surrounding skin, it will cast a shadow. A scar that crosses natural expression lines will be visually striking because it will not follow a natural pattern, and a scar that is wider than a wrinkle will stand out because it is not a naturally occurring line. Any one, or a combination, of these factors may result in a scar that, although healthy, may be improved functionally or cosmetically by treatment.

What Can and Cannot Be Done for Scars

Several techniques performed today by dermatologists can alter or camouflage the appearance of a scar. Most of these procedures are performed routinely in the dermatologist's office under local anesthesia. Only severe scars, such as burns over a large part of the body, require general anesthesia and a hospital stay. Typically, methods of scar treatment are not traumatic, life-disrupting procedures and do not involve major surgery.

Modern scar revision techniques can change the length, width, or direction of a scar; raise depressed scars, or lower elevated scars. However, no scar can ever be completely erased; and no magic technique can be expected to return skin to its pre-scar appearance. Surgical scar revision can provide improvement in the appearance of the skin, while leaving another-though less conspicuous-mark. In addition, a scar's color cannot be altered; as it gets older, it usually fades and can often be concealed effectively with make-up, but a certain difference in pigmentation will usually remain.

The most important step in the treatment of scars is careful consultation between patient and dermatologist-analyzing what bothers a patient most about a scar and effectively

determining the technique best suited to its treatment. Physicians stress that each scar is different, and each requires different attention.

Methods of Scar Treatment

Surgical Scar Revision. The surgical removal of scars is a technique best suited to wide or long scars, those in prominent places, or scars that have healed in a particular pattern or shape. Based on the tremendous ability of the skin to stretch with time, surgical scar revision is a method of removing a scar and rejoining the wound in a less conspicuous fashion. Wide scars can often be cut away and resutured, resulting in a narrower, less noticeable scar, and long scars can be visually shortened. Dermatological surgeons may use a technique of irregular or staggered incision lines, rather than straight-line incisions, to form a broken-line scar which is much more difficult for the eye to follow and therefore less visible.

Sometimes, a scar's direction can be changed by surgically manipulating it so that all or part of the scar that crosses a natural wrinkle or line falls into the wrinkle, making it less noticeable. This method can also be employed to move scars into more favorable locations, such as into a hairline, or a natural junction (for instance, where the nose meets the cheek.)

Best results with surgical scar revision are obtained when the scar is removed and wound margins are brought together without tension. Accordingly, scar removal is planned with great care for the details of the texture and direction of muscle layers.

Dermabrasion

Dermal abrasion, or dermabrasion, is a method of treating fine scars or minor irregularities of surface skin, and improving the look of some surgical scar revisions. It is also the best known technique for the treatment of acne scars. A power-driven instrument is used to remove the top layers of the skin. By bringing the healthy surrounding tissue down to the level of the scar, dermabrasion levels out irregularities in the contour of the skin and may offer marked improvement for certain types of scars, although it cannot eradicate all the defects of scar-ring. Dermabrasion has been used with favorable results on post-acne scars, smallpox or chickenpox scars, professionally applied tattoos, wrinkle lines, operative scars, and even freckles.

A relatively safe procedure, dermabrasion uses a variety of machines, from brushes to lasers, although each offers similar results. It is the skilled hand of the trained dermatologist which must guide the machine, applying it in the correct direction of the skin's surface, to abrade and remove scarred areas, without causing additional scarring.

Some physicians will freeze the entire facial skin for the operation, others will give patients only local anesthetics or pain-killers. Your dermatologist will prescribe appropriate post-operative

care. Patients can usually return to work within two to three weeks; some patients can return to work after only one week.

Full-face or full-cheek dermabrasions are usually recommended, since the procedure causes a texture change, and sometimes a pigment change, in the treated skin, which would be noticeable in small patches. If defects are minor, only one dermabrasion will be needed. Several abrasions may be required if defects are deep and extensive, as in the deep-pitted scars of acne.

Most effective in the treatment of facial scars, dermabrasion used on other parts of the body has tended to result in slower healing, greater redness and an increased chance of post-operative scarring.

Collagen Injections

Injectable collagen, a natural animal protein, is one of the most popular "filler materials" used in the treatment of soft, superficial scars. Injected into a scar, it will fill in depressions, raising them to the level of the surrounding skin. The amount of material injected will vary with the size and firmness of the scar. Screening will exclude patients with a personal history of rheumatic diseases, collagen diseases Or "autoimmune" diseases. In addition, patients are always tested on the forearm and observed for about a month prior to treatment, to ensure that allergic reactions do not occur.

* Improvement is immediate but is not entirely permanent even in stable old scars.

There is now available a newer material composed of a gelatin matrix implant which works similarly to collagen but may last somewhat longer. It has been approved for use in such scars. And medical grade injectable silicone has been used in the past for permanent treatment of stable old scars with great success but it is not yet FDA approved for such use.

Punch Grafts

This is the best procedure for the treatment of deep, "ice-pick" scars. A tiny instrument is used to punch a hole in the scar, and remove a piece of the surrounding tissue. The area is then filled in with a matching cylindrical piece of unscarred tissue, usually taken from the back of the earlobe. The "plugs" are then taped into place for five to seven days as they heal. Even though the punch grafts form scars of their own, they provide a smooth skin surface which is far less visible than depressed scarring.

Chemical Peels

Most commonly used on the face, this treatment removes the top layer of skin with a chemical in order to smooth depressed areas and give the skin a more even tone. Like dermabrasion, the technique is particularly helpful for superficial scars, and is often used to treat sun-damaged, or irregularly pigmented skin.

The chemical is applied to the skin without need for a local anesthesia, with an ordinary cotton-tipped applicator, beginning on the forehead and moving over the cheeks to the chin. The entire procedure takes between one and one and a half hours. Often the face is covered with a tape mask after the operation, and the mask is removed after 24 hours.

Patients often experience discomfort for hours following the operation. Swelling is extensive, and healing will tend to be slow, taking one to two weeks. Some change in skin color may occur, depending on the peeling agent used.

Further Scar Treatment Methods

Cryosurgery.

This involves the freezing of the upper skin layers which can sometimes cause scars to diminish in size. This technique is used mainly on the raised acne scars of the shoulders and back.

Cortisone-like injections. These have been found to be quite effective in softening very firm scars (or keloids) and causing them to shrink and flatten. Cosmetics. Certain cosmetic cover-ups, applied correctly, can be very efficient at camouflaging quite prominent scars. Physicians encourage patients to wear make-up after scar treatments. Make-up will improve the appearance while nature completes the healing process.