

As with other products, wounds need to be healed to the point of no raw, open areas before using onion extract. Onion extract is generally considered safe to use during pregnancy and breastfeeding, as well as in young children and has even been used on infants in neonatal intensive care unit. Onion extract gel is massaged into the skin three to four times a day. Once the gel has dried, cosmetics may be applied, if desired. Onion extract may also help resolve post inflammatory hyperpigmentation (PIH), which may occur following acne or skin trauma (e.g., surgery, accident, stretch marks).

Cortisone (steroid) injections or tapes are effective in softening very firm scars (or keloids) causing them to shrink and flatten. This is usually the treatment of choice for hypertrophic scars and keloids.

Interferon is a chemical that can be given by injection and may help improve the hardness and cosmetic appearance of the scar.

Cosmetics applied correctly can be very good at covering up scars. Physicians encourage patients to wear make-up after scar treatments. Make-up will improve the appearance while nature completes the healing process.



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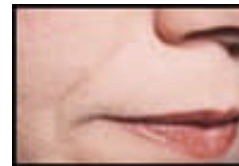


Gently massage Mederma® into the scar 3-4 times daily.

- 8 weeks on new scars
- 2-6 months on existing scars or stretch marks



Before Mederma®



6 Months after using Mederma®

Clinically Proven

Studies have shown that Mederma® reduces the appearance of scars³. In a study published in *Dermatological Surgery*, Vitamine E had no effect on or actually worsened the cosmetic appearance of scars⁴. Mederma® is the **1# doctor and pharmacist recommended** product for scars in America^{1,2}.

Dermatological specialties

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1. IMS Health NDI, January 2003

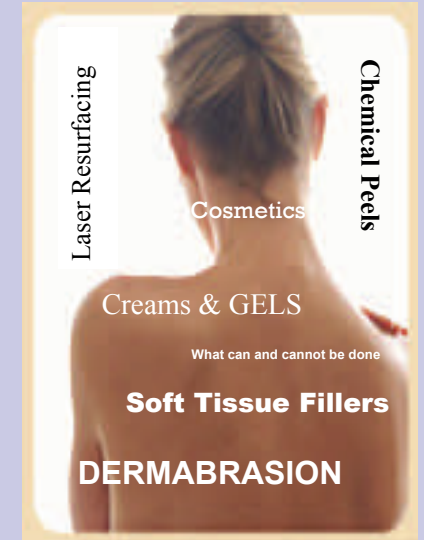
2. Pharmacy Times, OTC supplement, June 2003

3. Drs Metzinger, Clark, and Colleagues. Louisiana State University School of Medicine. *Cosmetic Dermatology*, March 1999.

4. Leslie Baumann, MD and James Spencer M.D. M.S. University of Miami Department of Dermatology. *Dermatological Surgery*, April 1999: 311-315.

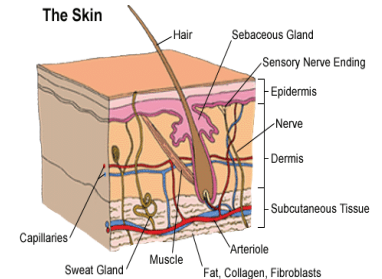
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WHAT IS A SCAR?



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What is a Scar ?

Scars result when the skin repairs wounds caused by accident, disease, or surgery. They are a natural part of the healing process. The more the skin is damaged and the longer it takes to heal, the greater the chance of a noticeable scar.

Typically, a scar may appear redder and thicker at first, then gradually fade. Many actively healing scars that seem unsightly at three months may heal nicely if given more time.

The way a scar forms is affected by an individual's age and the location on the body or face. Younger skin makes strong repairs and tends to overheal, resulting in larger, thicker scars than does older skin. Skin over a jawbone is tighter than skin on the cheek and will make a scar easier to see. If a scar is indented or raised, irregular shadows will be seen, giving the skin an uneven appearance. A scar that crosses natural expression lines or is wider than a wrinkle, will be more apparent because it will not follow a natural pattern nor look like a naturally occurring line.

Any one, or a combination of these factors may result in a scar that, although healthy, may be improved by dermatologic surgical treatment.

What Can and Cannot Be Done for Scars

Several techniques can minimize a scar. Most of these are done routinely in the dermatologist's office. Only severe scars, such as burns over a large part of the body may require general anesthesia or a hospital stay.

Surgical scar revision can improve the way scars look by changing the size, depth, or color. However, no scar can ever be completely erased; and no magic technique will return the scar to its normal uninjured appearance. Surgical scar revision typically results in a less obvious mark. Because each scar is different, each will require a different approach.

The most important step in the treatment of scars is careful consultation between the patient and the dermatologic surgeon - finding out what bothers a patient most about a scar and deciding upon the best treatment.

Scar Treatment

Surgical Scar Revision - Based on the ability of the skin to stretch with time, surgical scar revision is a method of removing a scar and rejoining the normal skin in a less obvious fashion. The surgical removal of scars is best suited for wide or long scars, those in prominent places, or scars that have healed

in a particular pattern or shape. Wide scars can often be cut out and closed, resulting in a thinner scar, and long scars can be made shorter. A technique of irregular or staggered incision lines, rather than straight-line incisions, to form a broken-line scar that is much more difficult to recognize may be used. Sometimes, a scar's direction can be changed 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 used 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 are obtained when the scar is removed and wound edges are brought together without tension or movement (pull) on the skin.

Dermabrasion - Dermabrasion is a method of treating acne scars, pockmarks, some surgical scars, or minor irregularities of the skin's surface. An electrical machine is used by a dermatologist to remove the top layers of skin to give a more even contour to the surface of the skin. While it can offer improvement for certain scars, it cannot get rid of the scar entirely. Patients can usually return to work within a week. If defects are minor, only one dermabrasion will be needed. Several abrasions may be required if defects are deep and extensive, as in deep acne scars.

Laser Resurfacing and Pulsed Dye

Laser Scar Revision - Another method of improving acne and chicken pox scars is laser skin resurfacing. High-energy light is used to remove unwanted, damaged skin. Patients can return to work or regular activity within one week, but skin may stay pink for several weeks or months. Several different lasers are available depending on the skin defect requiring improvement. A pulsed dye laser, for example, uses yellow light to remove scar redness and to flatten out raised scars (hypertrophic scars or keloids). This laser can also improve itching and burning sensations in the scar. Hypertrophic scars or keloids typically need two or more pulsed dye laser treatments every two months. Acne scars or other indented (atrophic) scars can also be improved with laser skin resurfacing.



Soft Tissue Fillers (collagen injections or fat transfer) - Injectable collagen, a natural animal protein, is a substance used to elevate indented, soft scars. The amount of collagen injected will vary with the size and firmness of the scar. Patients with a personal history of certain collagen diseases or "autoimmune" diseases cannot safely receive injectable bovine collagen. Patients are always tested on the forearm and observed prior to treatment to ensure that they are not allergic to the collagen. Allergic patients or those with collagen vascular diseases may not use human collagen or other related filler materials. Improvement is immediate but is not permanent. Collagen injections typically need to be repeated every three to six months. The patient's own fat or injectable donated fascia can be used in full-thickened deep depressed scars. New research may develop more permanent substances to inject into scars.

Punch Grafts and Punch Excisions - Punch grafts are small pieces of normal skin used to replace scarred skin. A tiny instrument is used to punch a hole in the skin and remove the scar. The area is then filled in with a matching piece of unscarred skin, usually taken from the skin behind the ear. The "plugs" are taped into place

for five to seven days as they heal. Punch excisions, on the other hand, involve the use of stitches to close the holes produced by the tiny skin punch. The stitches are removed in five to seven days. Even though the punch grafts and excisions form scars of their own, they provide a smoother skin surface which is less visible than depressed scars. Deep or "pitted" acne scars are best treated by punch grafts or excisions.

Chemical Peels - This procedure involves the use of a chemical to remove the top layer of the skin in order to smooth depressed scars and give the skin a more even color. It is most helpful for shallow superficial scars.

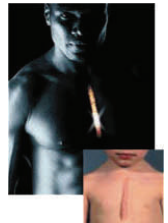
The chemical is applied to the skin with an ordinary cotton-tipped applicator beginning on the forehead and moving over the cheeks to the chin. Different chemicals can be used for different depth peels. Light peels require no healing time while deeper peels can require up to two weeks to heal. The amount of scarring and color change determines the type of peel selected.

Other Scar Treatment Methods

Pressure bandages and massages can flatten some scars if used on a regular basis for several months.

Cryosurgery involves freezing the upper skin layers which causes blistering of the skin. This can sometimes cause scars to diminish in size. This technique has been used on raised acne scars.

Silicone-containing gels, creams, and bandages have also been very helpful in reducing scar thickness and pain. They must also be used regularly and results are variable. Brands like Dermatix Gel and others are worth a try for keloid and other hypertrophic scars.



Silicone impregnated gels can be used by the patient at home to remodel elevated scars in addition to injections of scar tissue.

Onion extract: Onion, which is also known as *allii cepae* or *allium cepa*, offers many health-related benefits. With respect to scars, onion appears to inhibit the function of fibroblasts, and the production of a ground substance which contributes to the scar matrix. It may also decrease prostaglandins and leukotrienes, and inhibit inflammation and histamine release. Onion is a rich source of quercetin, an antiinflammatory.

Onion is available as a proprietary botanical extract (cepalin) under the brand name MEDERMA® in a greaseless gel, which contains allantonin. The product does not smell like onion, but has a reminiscent aroma of water.

Anatomy of a Scar

