

Scar Revision and Skin Surgery

Note: Prior to reading this section you should have read Parts I and II of this book!



Some scars can be improved with carefully planned multi staged surgery over a period of 1-2 years (see photos page 182 for details about this case).

Unightly, disfiguring scars, or defects can be disconcerting and often devastating to one's self-image. In addition to scars, other blemishes or defects that may be removed or improved with carefully planned plastic surgical techniques include:

- moles
- skin tumors (cancers)
- birthmarks
- cysts

These lesions may be partially or completely excised with surgery. However, a defect will result which must be repaired by either advancing the edges together (primary closure), skin grafts, or flaps from adjacent skin. Remember, ***any time an incision or injury penetrates all layers of the skin some scarring will result.*** In most situations, additional revisional surgery within six (6) to twelve (12) months can help provide a more satisfactory result.

The appearance of most scars or blemishes may be improved by well planned and carefully executed surgery, but there are some important facts patients contemplating such procedures should know.

Scars are usually unsightly because they may:

1. be wide
2. be longer than one inch
3. cross natural creases or facial contour lines
4. be elevated above the adjacent skin
5. be depressed below the adjacent skin
6. be a different color than adjacent tissues

If any or all of these characteristics are present, improvement in any one of them should make the scar(s) less conspicuous. Correction of two or three of these factors can often result in dramatic improvement of the appearance (and sometimes function) of the scar(s). "Surgical treatment" for deep scars and skin defects implies that incisions may be made to remove the existing scar or blemish.

Each incision made into the skin, regardless of where it is placed, who makes it, for what purpose it is made, or whether it is deliberate or accidental, heals in the same manner as any other cut; that is, it produces scar tissue—



When removing an existing scar or blemish by excision, the surgeon makes every effort to place the line of incision as nearly as possible in or parallel to one of the normal crease lines of the face or body. Sometimes it may be necessary to change the direction of a scar so that it will follow these lines.

nature's method of healing. This simple fact is frequently forgotten or ignored by individuals who think that a "plastic surgeon" can make an incision and leave no visible scar and that he can, in fact, eliminate existing scars.

In reality, ***the surgeon's goal is to replace an unsightly or disfiguring scar with a better scar***, one which is more narrow, more level, blends with the surrounding skin surface, and which causes no contracture or pull on the surrounding structures; in short, one which is as inconspicuous as possible. The final appearance however is dependent on many factors, one of which is the patient's own healing capability. (See page 67 Risks)

Possibly conditioned by what they see on television and in the movies, many people expect this final result immediately and become disappointed and troubled because they have to wait for "maturation" of their scars. Maturation is the continuing change in appearance all scars go through until they reach a state where no further change will occur.

Maturation of scars may take from 6 to 18 months; sometimes longer, especially in young children. Initially, a freshly repaired incision of scar usually looks pretty good. Then it becomes reddened, possibly somewhat raised above the surrounding skin and frequently is hard or lumpy. Gradually, (unless the scar is frequently stressed by stretching the surrounding skin) the firmness and red color lessen and should disappear, leaving a softer scar which is usually more level with and somewhat lighter in color than the adjacent skin.

Patients seeking scar revision should be emotionally prepared to accept several facts:

First, removal will result in another though, hopefully, improved scar;

Secondly, the final appearance will not be evident for 6 to 18 months, and

Thirdly, more than one procedure may be required.

This brings us to another very important matter. Understandably, most people with recent scarring want repair immediately; however, scar revision, except in selected cases, should not be undertaken too soon. The passage of time is the best, the kindest, and, in the long run, the simplest treatment to give to any scar of recent origin since most will undergo spontaneous improvement if given enough time to do so, often 6 to 18 months.

Only after the scar has become soft and white is it "mature." A decision regarding a second stage revision may be delayed until this time has elapsed. However, scars which cause distortion of normal structures (eyebrows, lips, eyelids, nostrils, etc.) those which spread widely or produce deformity by contraction, and "U" or "J" shaped scars may be repaired earlier because little or no improvement in the basic problem can be anticipated with the passage of time.

NATURE'S HAND IN HEALING



Following an injury most patients wish to have surgical correction of scars immediately. Waiting can sometimes be the best treatment. In this case Figure A shows scarring of the forehead shortly after an accident. Three months later without any treatment Figure B shows some improvement.



Six months later the lumps have flattened and deep pink or red color is diminished.



Approximately two years later the area has healed nicely with minimal scarring. No surgery was performed.

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Sometimes it may be necessary to change the direction of a scar so that it will follow these lines.

Excision of large unsightly scars, birthmarks or blemishes may require multiple operations over a period of time (so called serial excisions). Occasionally, it is necessary to shift surrounding tissue to fill a defect, or rarely, even resort to skin grafting.

Stages of Reconstruction

Scar revision often requires at least two and frequently three surgical procedures to obtain the best achievable result. Usually 6-12 months separate each stage. Some scars "mature" more quickly therefore, subsequent stages may be performed sooner. One of the paradoxes of healing is that scars on younger children may take 18-24 months, sometimes longer, to mature, while the same scar on a patient in their 60's may be flat, thin and soft within 3 months. This is one of the unpredictable factors that accounts for the variability in the final result that occurs with scar revision and wound healing.

In Conclusion

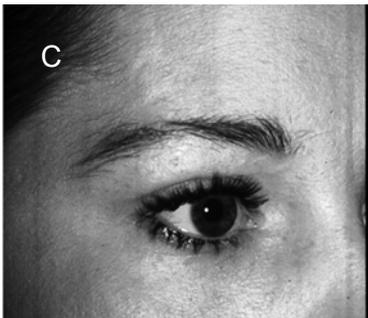
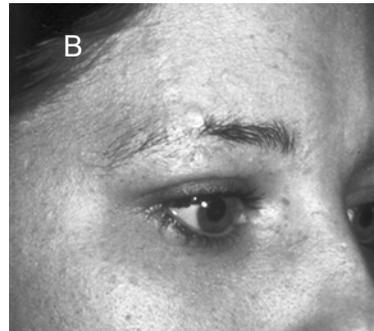
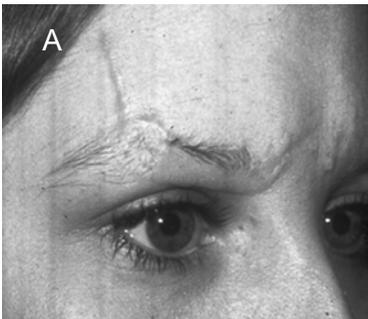
REMEMBER:

Scars are unsightly because they may:

1. be wide
2. be longer than one inch
3. cross natural creases or contour lines
4. be elevated
5. be depressed
6. be a different color than adjacent skin

Therefore, if a scar possesses any of the above characteristics, improvement in any one of them should make it less conspicuous.

Since Dermabrasion is usually a vital part of most scar revisions, you should read the Section on Dermabrasion (page 178) carefully.



Dermabrasion is an invaluable component of scar revision surgery. The scars depicted in this patient required two stages. The scar was first excised and closed with a zigzag plasty (geometric broken line). (figure B)

Six months later the elevated edges were dermabraded, or sanded down, leaving a much smoother contour.

Figure "C" represents the final result six months after the dermabrasion.

The dermabrasion procedure was performed with a rotating wire brush under local anesthesia.



The photograph on the left shows a depressed scar on the forehead in this young woman. A zigzag plasty (geometric broken line) was performed on the forehead scar and several months later a dermabrasion was performed. The photograph on the right shows the final result several months after both the excisional surgery and dermabrasion.

Scar Revision And Skin Surgery

Postoperative Instructions

When incisions have been made into the skin to remove existing scars or blemishes, the new skin edges are carefully approximated with fine delicate sutures (clips in the hair bearing scalp). It takes several days for the wound edges to mend so the immediate postoperative period is crucial in your getting the best possible result. **Be careful** not to injure the surgical area. Some swelling and discoloration can be expected with any surgical procedure. It can be minimized by applying ice over the operated area during the first 48 hours.

Some degree of swelling follows any surgical procedure. The swelling is due to the new tissue fluids brought into the area by the body to promote healing. The increased blood supply to the region is responsible for the pink color of the skin and some of the “discoloration” associated with surgery. When these healing fluids are no longer required, the tissues release them and they are absorbed through the bloodstream.

You must be willing to accept temporary swelling and discoloration which occurs following such operations. Though usually visually disconcerting, most people feel it is a negligible inconvenience to pay for the physical and psychological improvement they generally experience.

In many situations, a tape dressing is placed over the suture line to help protect it. Do not disturb the tapes and try not to get them wet. They will be removed during your “one week” post-operative visit. Often the incision sites may be re-taped for an additional week.

We generally use a dissolvable suture to close surgical incisions. When the tape dressing is placed over them, the surface suture material ordinarily comes off when the tape is removed.

If not, it can be gently removed with delicate instruments.

When the incisions have been placed in areas where tapes would not stick to the skin (on the lip margin or around the eyelid), tape is not applied over the sutures, so close adherence to the following instructions is essential.

When no tape has been placed over the suture line, we recommend you follow this routine. Six times daily you should:

- Saturate** a Q-tip with full strength hydrogen peroxide (from the drug store).
- Gently** bathe the suture line with the peroxide moistened Q-tip for 3 minutes at least 6 times daily.
- Always** stroke along (parallel to) the suture line—**never across (perpendicular) to it.**
- Following** each peroxide treatment apply a **thin** layer of the recommended ointment to the suture line.

Remember, this ritual should be repeated *at least six (6) times daily* until the sutures have been removed or until we instruct you to discontinue it. We will usually recommend you continue this treatment program for as long as there is **any** crusting along the suture line.

If you have had a tape dressing applied to the surgical area, in the Clinic, we will treat the incisions when the tape is removed and the suture material is cleaned away from the wound. We usually **re-tape** the area for another week or so to further support the new healing scar. If this is done we ordinarily instruct you to remove the tape at home at the end of the second week. If any crusting is present at that time follow the routine outlined above until it disappears.

In most patients, makeup may be applied to the surgical area for camouflaging within 2-3 days after the tapes or sutures are removed. Apply and remove it carefully.

We feel it is beneficial for you to tape the incision site at night or whenever you can for at least six (6) months. Pulling or exerting any tension on any scar seems to promote the formation of new unwanted scar tissue. Properly applied cross-taping will relieve some of the tendency for additional scar formation, so we recommend you do it as much as possible.

Anytime tapes are removed they should be gently pulled along (parallel to) the lines of the incisions, not across them.

Remember, it takes time (6-12 months) for the scar to mature. It will get red and lumpy before it begins to flatten and become lighter in color. Not until it is white and flat is it mature, so

be patient. Sometimes cortisone can reduce excessive lumpiness should it occur.

In most scar revision cases, more than one operation will be necessary in order to obtain the best possible result. The first two procedures generally require excisional surgery with suture repair. Later stages usually require dermabrasion so read Section on Dermabrasion carefully (page 178). In some cases laser treatments may be helpful. We will advise you as to when your next stage should be performed.

Notify us if you suspect any problem (infection, undue swelling or redness, if the sutures come out prematurely), or if you are unsure about the instructions you are to follow.

Failure to follow these instructions faithfully can lead to certain complications which potentially could jeopardize the desired result.

Most scar revisions require at least two or three stages in order to achieve the maximum results.



Facial scarring resulting from poorly performed fat injections ... improved by excising scars and shifting adjacent skin into the defects.

DO NOT take any medications other than those prescribed or approved by McCollough Plastic Surgery Clinic.