



## scar improvement (scar revision)

One of the most sensitive esthetic concerns people have about their face is facial scarring. This can be traumatic, and a source of embarrassment leading to significant self-conscious doubt and low self-esteem.



While no scar can be removed completely, your cosmetic surgeon can often improve its appearance, and make it less obvious through the injection or application of certain steroid medications or through surgical procedures.



### about scar revision

Normal scars are thin and generally not that visible; however hypertrophic scars result from a more aggressive healing process after wound formation. They tend to become thick, raised, and red and appear swollen. They remain within the bounds of the wound and take longer to heal. Hypertrophic scars are wider than the typical ones and treatment is important during the healing phase in order to minimize the aesthetic long-term problem.



If they do not respond to steroid treatment, your surgeon will recommend surgical treatment. During this procedure, performed normally under local or general anaesthetic, he will remove excess scar tissue, and reposition the incision so that it heals in a less visible pattern. Steroid injections during surgery and at intervals for up to two years afterward may be administered to prevent the scar from reforming.



Keloid scars are much more aggressive than hypertrophic scars, with a tendency to develop in the upper chest, neck, and facial regions. You should keep in mind that despite the long-term effective treatments for keloids, these tend to reappear.

If steroid treatment is unsuccessful, your surgeon will cut out the scar tissue and close the wound with one or more layers of stitches. This procedure is performed under local anesthesia and you will be able to get back to work in a day or two. Your surgeon may choose to use a skin graft, although this increases the risk of developing a keloid in the place where the graft was taken from.

Cosmetic surgery today can also treat contractures that form as a result of burns or other injuries leading to a loss of a large area of skin. These scars pull the edges of the skin together, affecting the muscles and tendons, and restricting normal movement.

Correcting a contracture usually involves cutting out the scar and replacing it with a skin graft or a flap. In some cases your surgeon may perform a Z-plasty procedure.



## *your consultation*

If you're bothered by a scar, your surgeon will examine you and discuss the possible methods of treating it, the risks and benefits involved and the possible outcomes. During your consultation you need to voice your expectations and make sure you they are realistic. Don't hesitate to ask any questions or express any concerns you may have.

## *preparing for surgery*

After a thorough examination and a full medical history, your surgeon will discuss with you various ways of correcting the problem.

Before your surgery:

- You should not take aspirin or anti-inflammatory medicines such as ibuprofen for 2 weeks before surgery.
- Avoid alcoholic beverages for 24 hours prior to surgery.
- Stop or reduce smoking for at least 2 weeks prior and after surgery.

## *your operation*

When dealing with prominent scars, your surgeon will apply treatment in order to:

- Make the scar thinner.
- Diminish the rough edges, irregularities, prominences and deficiencies in the skin that occur because of the wound and its healing.
- Redirect the scars in order to help minimize its prominence.

Surgical scar revision includes multilayer closure techniques that diminish the pressure on the wound site while it heals. Scars can be broken up into geometric configurations or "z-plasty" which help further to minimize the visibility of the scar.

If your surgeon decides to perform the Z-plasty surgical technique, he will try to reposition a scar to conform more closely to the natural lines and creases of the skin, where it will be less noticeable.

During this procedure, your surgeon will remove the old scar and will perform new incisions on each side, creating small triangular flaps of skin. He will then rearrange them to cover the wound at a different angle, giving the scar a "Z" pattern. The wound is closed with fine stitches, which are removed a few days later. This procedure is performed under local anesthetic and does not necessitate hospitalization.



It is important to remember that Z-plasty won't make scars disappear. A portion of the scar will still remain outside the lines of relaxation.

Typically, your surgeon will perform laser resurfacing three to eight weeks after the initial injury, surgery, or revision surgical treatment. This will achieve some additional improvement in the ultimate appearance of the wound long term.

For more serious scars, your surgeon may recommend skin grafts and flaps. The treated area may take several weeks or months to heal, and a support garment or bandage may be necessary for up to a year.

Grafting involves the transfer of skin from a healthy part of the body (the donor site) to cover the injured area. There is a certain risk of a graft not "taking", even though they are from your own skin. In addition, all grafts leave some scarring at the donor and recipient sites.

Flap surgery is a more complex procedure in which skin, along with the underlying fat, blood vessels, and sometimes the muscle, is moved from a healthy part of the body to the injured site.

Skin grafting and flap surgery can greatly improve the function of a scarred area, even though the cosmetic results may be less satisfactory. In general, flap surgery produces better cosmetic results than skin grafts.



## *recovery*

- It is very important to follow your surgeon's instructions after surgery to make sure the wound heals properly. Although you may be up and about very quickly, your surgeon will advise you on gradually resuming your normal activities.
- Keep in mind that no scar can be removed completely; the degree of improvement depends on the size and direction of your scar, the nature and quality of your skin, and how well you care for the wound after the operation.
- Don't panic if your scar looks worse at first. The final results of your surgery may not be apparent for a year or more.
- The degree of revision depends on the wound site and individual circumstances. Some individuals will only require simple revision and others are encouraged to have a combination of surgical revision plus skin resurfacing treatment.
- Rarely wounds are worsened by revision treatments. Indeed, once the scar forms the scar will always remain, however cosmetic surgeons can reduce the prominence and make the wound site generally more aesthetically pleasing.

## *risks and complications*

While scar revision is normally safe, there is always the possibility of complications such as infection, bleeding, a reaction to the anesthesia, or the recurrence of an unsightly scar.

No matter what approach is taken, keloids have a tendency to recur, sometimes even larger than before. To prevent this, the surgeon may combine the scar removal with steroid injections, direct application of steroids during surgery, or radiation therapy. Even so, the keloid may return, requiring repeated procedures every few years.