

Scar treatments

What types of scars are there?

Scars can result from injury to the skin through disease and trauma. Common examples include burn scars, acne scars and surgical scars. Individual scars can be further classified as raised (hypertrophic or keloid), depressed or atrophic. Inflammation to the skin can also result in skin colour changes including red scars and scars that are darker than the surrounding skin known as post-inflammatory hyperpigmentation.

How do scars form?

Scars are a consequence of injury to the deeper layers of the skin. In some cases there is too much collagen and scar tissue and this results in hypertrophic or keloid scars. Conversely, there may be too little tissue and this leads to indented or atrophic scars. Scars from surgery may also lead to lines, lumps and redness. Acne scars can be classified according to the shape and depth of scars.

Raised scars such as hypertrophic surgical scars can be treated with injections or laser resurfacing.

Who is more at risk of developing scars?

Some people are at a higher risk of developing scars including those with:

a history of keloid scarring

a family history of scars

severe acne

coloured skin

or who have had a procedure conducted in “high tension” areas such as the chest and shoulders

Some scars need multiple procedures for improvement. This case required surgery, injections and laser.

What methods are used to correct scars?

Optimal scar treatment will depend on the type of scar. If a scar is raised, procedures such as simple tape and silicone dressings can flatten the scar. Other scars require steroid injections. Raised scars can be flattened with ablative lasers. Depressed scars may require dermal fillers or fat grafting. The ideal procedure will depend on the scar type and location.

Surgical procedures: Surgical procedures such as scar debulking, z-plasty, subcision and excision can improve the appearance of scars.

Injections– Intralesional corticosteroid injections are used to flatten raised scars.

Dermal fillers and fat grafting: These procedures are excellent for atrophic or depressed scars. Fillers and fat can decrease the depth of scars.

Ablative lasers: These lasers include erbium and CO2 and work best on acne scars, raised scars, traumatic scars and surgical scars. They work by taking off the top layers of the scar as well as a process called “dermal remodelling” which

stimulates the formation of new collagen.

Fractional ablative lasers: There are many types of fractional lasers and they all work in a very similar way. They treat “fractions” or parts of the skin’s surface which enables quicker healing times and safer treatments. Fractional lasers are ideal for acne scars, burn scars and treating coloured skin types.

Vascular lasers: The most commonly used laser is the pulsed dye laser. This laser can be used to treat keloid scars as well as red scars and early surgical scarring. Ideally a series of 2 to 4 treatments are needed for best results.

Pigment laser: These lasers can treat the colour of the scar. Pulsed dye laser is frequently used to treat reactive blood vessels of a surgical scar or pink- red keloid scars. Q switch lasers can be employed to treat **post-inflammatory hyperpigmentation** or dark skin scars.

Topical measures. The use of tape, pressure dressings, silicone gels and sheets can help treat and prevent scars from forming. There is no evidence that “anti-scar” creams and oils can remodel scars.

This case of traumatic skin scars was rectified with surgery and dermal filler.

What are the most common scar procedures performed by dermatologists?

Dermatologists most commonly perform scar procedures for acne and traumatic and surgical scar revision.

Acne scar revision is a specialised field of procedural and laser dermatology. The ideal revision method depends on three key factors including: acne scar type; skin type (skin colour); and downtime. Examples of acne scar revision procedures include TCA CROSS for ice pick, box car scarring and deep pores, fractional laser for rolling and atrophic scars and fully ablative laser for mixed scars and shallow box car scars. Atrophic acne scars will also benefit from dermal fillers and fat grafting, whilst tethered scars will benefit from a subcision surgical procedure.

Surgical scar revision is best carried out after removal of sutures. Techniques such as taping, silicone sheeting and gel, coupled with vascular laser, can reduce scarring.

Long standing raised scars are best treated with fully ablative lasers. Your dermatologist will guide you as to the best possible outcome for your surgical scar.

Skin cancer scars can be improved with laser resurfacing.