

what is acne scarring?

As if acne wasn't distressing enough, acne scarring seems doubly unfair. Scars form on the surface and in deeper layers of skin when Inflammatory acne (cysts/nodules) burst open, breaking the follicle wall, damaging the collagen and elastin which supports skin. The skin tries to repair itself by forming new collagen fibres, but these are rough in comparison.

3 TYPES OF SCARRING:

Scar formation is unpredictable because everyone heals differently; some people have more than one type of scar on their face.

i) hypertrophic/keloid scarring

As the skin heals, too much collagen is produced, resulting in a thick raised scar. They are more common on the jawline, lower face, neck and upper body.

Low: Scar thickness can be significantly reduced by fractional laser or radiofrequency followed by strong a cortisone cream/injection. The laser helps the c. cream to penetrate into the thick scars.

ii) Atrophic scarring. (depressed scarring)

These scars develop when not enough collagen is produced during the healing process.

1. **Ice pick scars:** small deep pitted holes in the surface of the skin are the most difficult scar to treat. They are more common on the cheeks following multiple inflamed spots. They can be removed by a surgical procedure known as punch incision, followed if necessary by non-surgical treatments to stimulate collagen to plump the skin.

Low: Fractional microneedle radiofrequency tightens the skin around the scar making skin smoother and the scars less severe. It can be used on any skin colour.

2. **Rolling scar:** caused by bands of scar tissue that form under the skin, giving the surface an uneven appearance. They are more common on cheeks following nodules or cysts. Again non-surgical treatments stimulate collagen production which plumps up the skin.

Low: multiple rolling scars can be treated with fractional laser: Fraxel repair carbon dioxide laser, sometimes combined with radiofrequency to tighten skin around the scar.

3. **Boxcar scars:** round or oval craters in the skin, either shallow or deep, with sharp edges.

iii) Hyperpigmentation

Acne in olive and darker skin types will change from redness to darkening. Laser or IPL can help fade them. However, darker skins take longer to treat so chose a practitioner with experience,

Treatments to smooth the skin.

Scar indentations cast a shadow which can't be covered with makeup and are more visible on softer areas like cheek. Scars can't be eradicated, but treatments can smooth the scar tissue so it blends in with surrounding skin. Recent scar tissue is much easier to treat, but you just have to wait until acne is no longer active. An experienced practitioner will manage expectations and recommend a layered approach: surgical revision followed by non-surgical treatments to stimulate collagen and finally filler.

Dermabrasion

dermabrasion reduces the depth of a scar by using a high-speed brush to remove the top layer of skin. Whilst effective at blurring the edges of large scars, it is less effective at ice pick or deep boxcar scars. It has been replaced by lasers on large areas of the face due to downtime: the skin is red and sore for months.

Laser skin surfacing.

Laser resurfacing has largely replaced dermabrasion due to shorter recovery times. There are two different types of laser:

2a Ablative Lasers

In 1990s ablative lasers replaced dermabrasion and strong peels which carefully vaporised and remove a controlled amount of damaged surface layer and stimulated collagen. Although the results were impressive, the aftercare still involved weeks of pain and complications. Skin absorbs bursts of energy from the laser so redness for many months.

2b non-ablative lasers

Non-ablative lasers have become popular because of the shorter recovery time. They use a different wavelength which heats up the top layer of skin without damaging the surface. As the injured scar heals, fresh new collagen is produced which plumps up the scar. Because there is less skin damage there is a shorter recovery time but multiple treatments will be needed. They improve the skin texture of soft indented scars and help blend in imperfections, but only suitable for mild to moderate scarring.

Fractional lasers

Fractional laser resurfacing uses beams of laser light to pierce tiny holes into scar tissue in, which breaks up the scar tissue which is pulling the skin down and releases it. Because the skin is treated in a grid of dots rather than 1 big sheet the skin heals faster but will need multiple treatments.

Low: Laser resurfacing is suitable for only slightly raised scars and some sunken scars. Best combined with cortisone and retinoid cream for best results. Raised scars, however, need a stronger one to dissolve extra tissue on the surface.

Pulsed dye lasers and pulsed light sources (Lowe)

These are extremely effective for treating some types of red, inflamed and raised scars, especially large areas. They work by reducing the amount of blood flow through the scar while at the same time also reducing the amount of activity of the scar tissue. Disadvantages: can lead to bruising; multiple treatments.

13. surgical elevation

This surgical treatment is excellent for rolling scars and involves cutting out thickened scar tissue under individual scars using either a needle or microblade, which allows the skin surface to rise. This allows blood to pool under the affected area. The blood clot helps form connective tissue, which pushes rolling scar so its level with the surface of the skin. The skin inflamed for a couple of hours afterwards. Large scars will involve multiple surgical procedures doing a little at a time. Follow with a laser such as ultra pulse co2 laser resurfacing to refine the skin's surface and the skin around the scars.

Scar subcision

It will flatten small deep scars and is usually followed by a resurfacing technique like laser, peel or micro to make skin smooth and minimise colour of the scar. On the face, it is sometimes possible to cut out the deep the scar under local anaesthetic as an outpatient.

14. Punch Techniques

There are three types of punch techniques used to treat ice pick and boxcar scars.

a) Punch excision

Individual scars may be removed by punch excision. The scar is excised down to the layer of fat underneath the skin; the resulting hole in the skin may be repaired with sutures or with a small skin graft for smoother skin. This is suitable for mild ice pick scars.

b) Punch Elevation

This helps make boxcar scars less noticeable. The base of the scar is surgically removed, leaving the sides of scar in place. The base is then reattached to the sides but lifted up so its level with the surface of the skin.

c) Punch Grafting

Punch grafts are used to treat very deep ice pick scars. As with punch excision, the scar is removed, then tiny pieces of normal skin used to replace scarred skin.

5. Medical needling + subcision

Medical needling and subcision involve inserting a needle underneath an indented scar to break up the scar tissue to manually stimulate collagen to smooth out the skin without damaging epidermis. Expect full results after 8-12 months and allows the skin to absorb topicals so follow by cortisone cream. This is especially good rolling scars. It is cheaper than ablative laser and less downtime than peels, but is considered inferior to the laser which is more controlled and consistent.

14. Fractional Radiofrequency.

A more recent treatment, fractional radiofrequency helps tighten and lifts scars. Radiofrequency has a pixel effect on the surface of the skin but also has an effect on deeper layers of skin. It is more effective than ablative lasers with less downtime and is also safer for darker skins.

4. Fillers.

Shallow indented scars can be improved with fillers which are also good for black skin. HA is good for small localised indented scars. For areas of sunken scars, subcision followed by Sculptra stimulates the skin to produce more collagen to fill the scars. Not really suitable for large areas however because fillers don't last.

11. Cortisone cream or injection.

Injecting thickened scar tissue with steroids to flatten them is a common treatment for both raised or depressed scars, although it is best for raised scars. Make sure you need an experienced dermatologist or it can lead to thread veins. Bear in mind that overtime cortisone can cause thinning of the skin. Often completes other treatments.

1. Chemical peel

Light peels and microdermabrasion are still popular for reducing red scarring on a light skin. Lunchtime peels only act on the epidermis, so whilst small depressed scars may look better after a peel, but this is mostly due to temporary swelling caused by chemicals. Try a course of light peels every 2-4 weeks. Combine with IPL.

Only deep peels that penetrate to dermis can help with scarring but expect a full week of downtime: redness and irritation.

Microdermabrasion

Light microdermabrasion has little effect, while deeper microdermabrasion can cause bruising and irritation. It is more suited to rolling scar rather than ice pick scars.

Conclusion

Although hard to resist, don't squeeze even small spots because bacteria can increase the risk of a cyst forming. If scarring is red but not too deep, you can try anti-redness cream with antioxidants, niacinamide and chamomile to calm and soothe.

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