Jobskin

Scar formation – a completely natural self-healing mechanism of the skin.

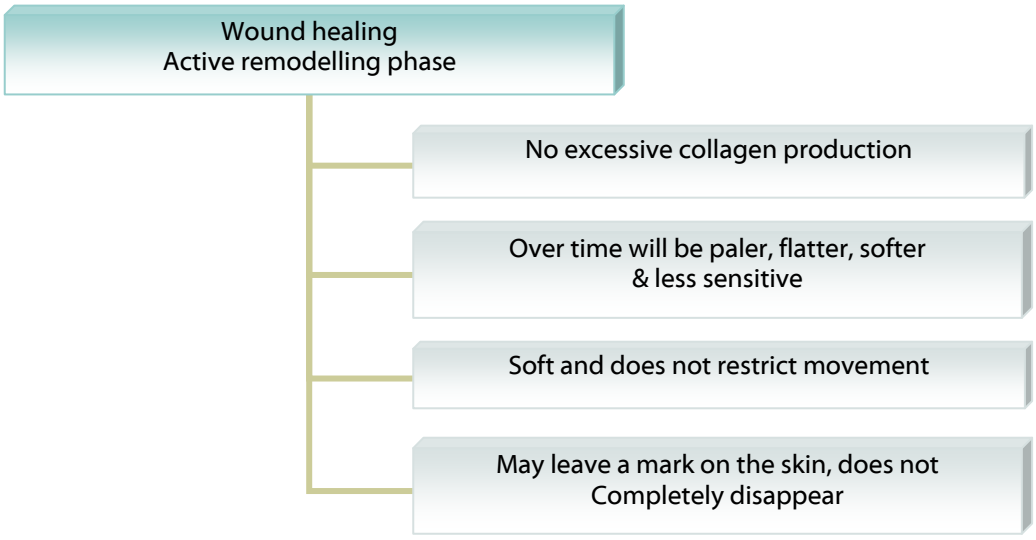
Skin is one of our most important organs. It not only protects us from external influences. It is exposed to enormous stresses every day, either as a result of environmental factors or minor injuries. Scars happen as a result of trauma, burns or post surgery. Some scars appear after acne, tattoos, injections, body piercing, infection, pregnancy and age.

What happens? – The body activates a self healing mechanism soon after the injury or surgery with the aim of closing the wound.

What is a scar? – is a repair site on the skin, the body cannot re build tissue exactly as it was, and new scar tissue is different in texture and quality to the surrounding normal tissue.

After an injury to the skin, the skin tissue is initially closed by a blood clot, the skin then forms new connective tissue from within on the affected site (collagen fibres). As the new tissue is frequently less elastic and contains less water, it may retract and harden. The visible symptom is the scar that remains on the surface of the skin.

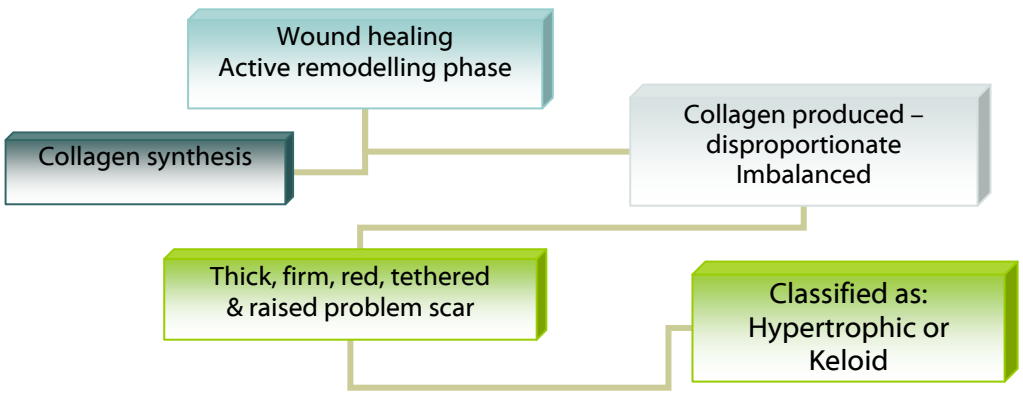
Normal scarring



In normal skin, the dermis containing collagen fibres is aligned parallel to the skins surface in a flat organised pattern, with an efficient balance between the collagen produced and destroyed. Not all scars require treatment; some heal without the need for treatment leaving a visible mark at the site of injury or surgery which in time fades.

Problem Scarring

Other scars are problematic and become hard, red, tethered, raised and lumpy requiring treatment to reduce the effects of scarring.



In a problem scar, an increase in vascularity creates a greater collagen formation, causing the laying down of new fibres to be disorganised and bunch together and fuse, forming nodules which push upwards. This causes the scar to be firm and raised.
Scars may take up to 18 months to fade and soften, during scar maturation the scar will respond to treatment.

Hypertrophic and Keloid Scars

Problem scars are mainly referred to as either hypertrophic or keloid.
Keloid scars are the most challenging to treat and often require other more invasive treatments or a combination of different treatment modalities side by side.

Hypertrophic	Keloid
Responds to treatment	Difficult to treat
Occurs soon after injury/trauma/surgical in immature scars	May not develop for many months after the wound has healed, aggressive
Can flatten spontaneously	Remains grossly elevated, does not regress on its own
Stays confined to area of original injury/surgical incision	Grows beyond wound boundary
Formed during primary wound healing	Can occur from minor lesions
May improve with scar revision	Surgical excision – can re occur
Formation of excess scar tissue Classified as - Linear (surgical/traumatic) or Widespread (burn) hypertrophic scarring	Overgrowth of scar tissue, Commonly occurs - ear lobes, sternum, back, deltoid & along the border of the jaw
Red, raised, hard, lumpy, itchy, sensitive	Dark red, elevated, thick, painful and proliferating

Treatment options

Non – invasive

- *Silicone gel*
- *Pressure therapy garments*
- *Topical steroids*

Invasive

- *Surgery*
- *Steroids*
- *Radiotheraphy*
- *Crotherapy*
- *Laser therapy*

The most common forms of non invasive treatments available are Silicone Gel and Pressure Therapy. Both are clinically proven through documented evidence to control and treat scarring, resulting in an improved cosmetic and functional outcome.

Jobskin hope that this brief introduction to scar formation and its management has been useful, should you require further information we advise you to speak with your GP, consultant or therapist.

Should you wish to refer to the research available please go to our Research link on our website: www.jobskin.co.uk