



Information about scars

Scar healing; Scars are the body's way of healing and repairing defects, created by trauma or surgery. This leaflet provides information mainly about this type of scarring, but scarring caused by burns or radiotherapy can also benefit from much of the advice given here.

The healing goes through four stages:-

- 1. Haemostasis**— blood vessels constrict to reduce blood loss and blood clots to plug the wound — begins immediately after trauma, slower after surgery.
- 2. Inflammation** — start of the repair and is triggered soon after the damage to the tissue, characterised by swelling and gathering of the cells needed to repair the damaged skin, cleaning up cell debris and preventing infection.
- 3. Proliferation** — after about three to four days new blood vessels start to infiltrate the area to bring fresh blood and nutrients. Repair begins by the laying down of collagen (protein). The area may still be swollen and there will be redness.
- 4. Maturation** (or remodelling) — after about 3 weeks there is reduction in activity, swelling and redness. This stage can take up to a year.

A well-healed scar appears as a thin, flat line, which is usually lighter in colour than the normal skin tone. Skin tension, infections, wound opening or the need for more surgery soon after the first surgery can result in less than ideal healing. Any of these may form layers of scar tissue, which can stick together called adhesions. This can affect mobility.

Scars with adhesions can be widened and have dips in the tissue. Raised scars are called hypertrophic. Scars which extend beyond the borders of the original defect are called keloid.

Care of Scars

Scars should be protected from the sun, especially in the early stages of healing. Burns and radiotherapy scars will need long-term protection with high SPF sun creams.

Once the skin has closed and any scabs have fallen off naturally it is necessary to moisturise twice a day to protect the scar from drying out. Very light massage of the scar can now start and can take the form of very light pressing and releasing.

For the first few months follow the scar line — do not pull it apart.

Various creams, gels, oils and silicone products can be used to protect, moisturise and deliver active ingredients which help with the healing. Some examples of each are given, but there are many other good products depending on what you want it to achieve. Test all new products on another part of your body before using in the scarred area to check for reactions or allergies. Scars respond more readily to products and manual therapy in the first 6 months or so.

Oils — Can either be absorbed or create a barrier by sitting on top of the skin, preventing moisture loss and protecting from irritants. Natural plant oils contain oils that may penetrate the skin and enhance its barrier function. Oils containing mineral oils or petrolatum will be occlusive (form a barrier). Examples of natural oils: Rosehip oil, Jojoba oil, Balmonds SkinSalvation Balm — Examples containing mineral oils / petrolatum: Baby oil, Bio-Oil, Petroleum Jelly (Vaseline).

Lotions and Creams — water-based products, which mainly moisturise (make skin less dry) and soften. Some active ingredients help healing or reduce itching. SPF protects skin from the sun. Examples: Alhydran medical hydrating cream, Medihoney Barrier cream.

Silicone products—these can be sheets, tape or gels. Silicone sheets/tapes can be placed over the scar in order to protect it from moisture loss and skin tension from movement. They also help to flatten and prevent scars from becoming hypertrophic or keloid. Silicone gels will achieve many of the same benefits, but may not provide as much physical protection.

- Examples of sheets: Scarban, Bapscarcare, Mepiform
- Example of tape: Siltape (used in the Lymphoedema clinic). This has a backing which gets removed and is then applied to the scar. It also has small bumps which promote lymphatic drainage in addition to the benefits of silicone products mentioned above. It should be removed to shower then replaced and used until the scar is soft and flat.
- Examples of gels: Kelo-Cote, Scarban gel, Bapscarcare gel.

Kinesiology Tape

Kinesiology taping (also called neuromuscular taping or elastic therapeutic taping) can be used to loosen up tight and stuck scars and promote lymphatic drainage. A patch test should be done on another part of your body where the skin is undamaged and healthy to check for allergy/irritation before using kinesiology tape.

- Examples of kinesiology tape: K-Active, Cure Tape, Sporttape and Rocktape.

50–100% of the maximum stretch of the tape is used when applying to your scar, however the more stretched the tape is, potentially the greater the risk that it will irritate your skin. **Do not stretch the ends of each tape**, place them on the skin without stretch. Do not tape over areas which have hair growth as it will be very painful to remove. Hair can be removed with hair removal cream prior to taping but there can be irritation once the hair starts to regrow.

Tape can be kept on for 3 to 5 days, sometimes longer if your skin tolerates the tape very well. You may have a bath or shower with the tape on your skin, but the water should not be too hot as the adhesive on the tape is heat activated. Dab the tape with a towel to remove excess water and let it air dry — do not use a hair dryer.

To tape a scar, cut one or more pieces of 5cm wide tape into 5 or 6 thin strips and apply according to the diagrams below. Round the corners of the tape strips as corners tend to lift away from the skin more easily.

