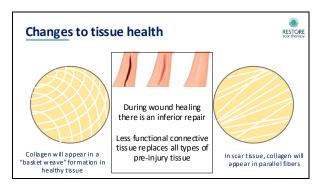




Workshop program includes: > Scar tissue and common classifications > Adhe sions, stiffness and fascia > Practical activity > Contrain dications and considerations > Commencing treatment: case history and assess ment > Practical techniques > Common post-treatment responses > How you can influence s cars using Restore Scar Therapy te chniques Images of scars which some people may find upsetting







Hypertrophic and keloid

Shared characteristics:

- Excess of collagen production.
- Red or brown and raised.
- Vascular.
- Often itchy or irritated. May be painful.

Keloid scars:

- Scar extends beyond the original incision.
- Do not improve without interventions, may get progressively worse.
- Can spontaneously grow following minor injury.

Rese arch has found tightness in skin and superficial fascia contributes to pathological scar development.



Scar tissue can impact sliding structures

RESTORE scar therapy

> RESTORE scar thorapy

Adhesion definition: Scar tissue that binds two parts of internal tissue that aren't normally inlead

- Adhesions occur after approx. 75%-93% of all abdominal surgeries.*
- Small bowel obstructions from scars accounted for 51% of all emergency laparotomies.*
- Adhesions are not exclusive to surgery, they can form after trauma or inflammatory conditions.



Source: * Medical Disability advisor. * national emergency laparotomy audit England and Wales 2015

Fascia





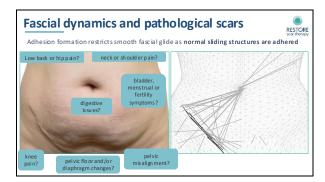
3 Main types of fascia

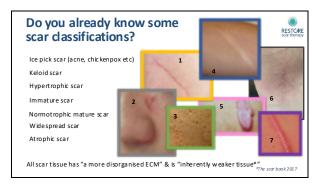
- Superficial
- Deep
- Visceral

Subtle changes in movement and loading patterns, through the fascial tensegrity network, can occur following scar formation.

Additional collagen fibers are deposited along lines of tension.









Activity: Assessing facial pulls



- > Nominate a person to wear the body suit and cover the feet and head if possible.
- > Assess movement.
- Using the dips, create a "scar" or multiple "scars" such as a csection, knee, appendix, mastectomy, shoulder surgery etc.
- Re-assess movement and notice what changes. Can you detect the pulls and restrictions?

Contraindications



These are in addition to your standard considerations for massage or fascial therapy treatment

- Infection symptoms (local or systemic).
- Weeping or oozing fluid.
- 3. Recent or suspected haematoma or seroma.
- 4. Scabs or open wounds.
- 5. Earlier than 10 weeks post-injury or surgery.
- 6. Within the torso during pregnancy.
- 7. During radiotherapy treatment.
- 8. Where structurally tightness from the scar tissue is beneficial for the client.
- 9. Lymphoedema (unless you are qualified to treatlymphoedema).
- 10. Over a medical device such as a pacemaker or stoma.

Considerations



These a rein addition to your standard considerations for therapy treatment

- How long has the wound been healed for? When to start is not a fixed time point, allow at least 6 weeks after full wound closure before commencing based on the basic skills and theory covered on this workshon. Advanced manifilingers may 3 art sooner.
- Are there deeper sutures in muscles etc. Surgical mesh or pins and plates? Consider if you need to use extra care not to disturb. Ideally view the x-rays or see the medical notes to understand the procedure.
- Oncology clients: radiotherapy, chemotherapy, stoma etc. Only treat oncology clients if you have completed advanced training in this speciality area.
- ➤ Bowel (IBS or other issues) bladder conditions, fibroids and heavy menstrual bleeding: Only treat if you understand the health concern. Avoid long treatments >15 minutes, light pressure only.

Commencing treatment: Case history



Note these are in addition to your usual questions.

- Establish the surgery or injury details. Understand their early scar healing checking for infections, dehiscence or other complications.
- 2. Ask about current local or associated pain, itch, sensitivity or other symptoms.
- 3. Ask about changes to organ function such as bladder and bowel symptoms.
- Check movement limitations. Are they are aware of any activities of daily living (ADL) they may find hard to do, or have stopped since their injury or surgery.
- 5. Discuss what are their treatment goals or objectives.
- 6. Ask if they touch their scar, and how they feel about it.

Formal scar assessment scales commonly used include Patient and Observer Scar Assessment Scale (P OSAS) a very scar specific form but does not capture a holistic picture.

Visual and physical assessment



Check movement range and quality of movement (smooth/fluid).

Visual

- Note scar size, texture and shape. If a propriate, observe the scar in standing and/or with
 movementor music activation. This may present pudering or pulling that it is not observable on
 the therapy table. Note location of any thicknede, pulled, dipped or puckered areas.
- 2. Register surgical drains or previous injury or surgery in the area.
- 3. Colour (is it hyper- or hypo- pigmentate d?)
- 4. Note any oedema or lymphoedema.

Physical (hands-on)

- 1. Move the scar and surrounding tissues.
- 2. Notice textures, quality and thickness of skin, temperatur
- 3. Assess for any sensory changes.



Depress and Release



Use this simple but effective technique can soften and flatten scars. It can help reduce swelling or lymphatic congestion. This technique is suitable for all types of scar.

- 1. Flat hands or fingers over and across the scar.
- 2. Relax and slowly add pressure into the tissue, sinking down.
- 3. Lift and release, then repeat to 'pump' around the area.
- 4. Repeat a technique in the same place 5-10 times before re-
- 5. Start with a general board application across and around a scar. As treatment progresses, become more specific working with your fingers onto any granular or thickened area. This can be superficial or deep, but always start more superficially.

Don't rush, it is the repetition of the technique that generates the changes.

Sink and Twist



Use this fascial movement to release tension around the scar, improve movement and tissue mobility. Adapt this technique during treatment to work more directly to soften and mobilise the scar and generate change in underlying deeper tissue.

- 1. Place hands behind or beyond the scar and stretch the tissue into or towards the scar, creating some 'lift' at the scar if possible.
- 2. Move your hands in alternative inward circular motions ('Tai chi' style). Keep a flowing movement with a static contact.
- 3. Use bodyweight, not muscle for more comfortable fascial release.

ADAPTIONS



- 1. Use fingers for light gentle pressure with the same movement to mobilise along the scar at a superficial or moderate level.
- 2. Bring your bodyweight forward to work deeper and more specifically onto the scar and underlying tissues.

Long Fibre



Use this technique to soften and increase stretchin 'stringy' or 'ropy' scars. Use initial fast movements to warm the tissue before increasing pressure and slowly stretching.

- 1. Starting at one end of the scar place two digits on the scar next to each other.
- 2. Pull your fingers apart in a fast stroke in the same place a few times. Opening out fibres lengthways.
- Reposition and repeat along the length if a scar (or in segments for a very long scar).



Protect & Stretch



Ideal for immature scars, use this technique to release skin and fascial tension while 'protecting' the scar. Pain at the injury site can limit movement, our skin and superficial fascia is full of nerve receptors. These can trigger pain or sensitivity when there is tightne across or over a scar. This technique will change the end feel of a movement, use this technique to increase range of movement.



- Place hands firmly over the scar to 'protect' it. Use myofascial release or long massage strokes away from the scar to stretch the skin and superficial fascia while blocking the scar.
- Progress to using breath and active movements to further stretch the skin and fascia around and beyond

Common post-treatment responses



Scar therapy should normally generate changes within 1 or 2 treatments. Often 3-6

RESTORE treatments are sufficient, but complex issues would require 6+ treatments.

- ✓ Sensation of lightness, freedom of movement.
- \checkmark Scar feels soft, smooth, flatter.
- ✓ Reduction of pain and sensitivity.
- ✓ Improved sensation.
- Short term increase in pain (achey, sudden sharp and stabbing, superficial or deep).
- Bowel movements, increased urination, heavy menstrual bleeding, early onset of

Increasing pain over >2 days or increasing swelling should be reported to a medical professional and is not usual.





Further reading



Research remains limited into manual therapy and scars. We recommend the following:

- Van Dael e, U.; Meirle, J.; Anthonissen, M.; Vanhullebus: h, T.; Maierters, K.; Demuynck, L.; Moortgat, P. Meichanomodulation: Physical TreatmentModal Ities Employ Mechanotransductiontol mprove Scarring. Eur. Burn J. 2022, 3, 241-255.
- Sorg H, Tilkorn DJ, Hager S, Hauær J, Mirastschijski U. Skin Wound Healing: An Update on the Current Knowledge and Concepts. Eur Surg Res. 2017;58(1-2):81-94. doi:10.1159/000454919. Epub 2016 Dec 15. PMID: 27974711.
- Definin C, Hohera uer E, Stoop R, van Daele U, Clijsen R, Taeymans J. Physical Management of Scar Tissue: A Systematic Rev Meb A-nalysis. J Altern Complement Med. 2 0200 ct 26 (10):854865. doi:10.1089/acm.2020.0199. Epub 2 020 Jun 2 4 PMID: 37.5896.0 (PMID: MMC7.57390).
- S.G. Sept. Viv. Li. PM. J. 9 SUL.

 Lutzhyisia, A. G. Gencarcja, A. Weld o'Diadecka D. Effectivenes of various methods of manual scar therapy. SkinRes Technol. 2023

 Mar. 20] Jes 1372. doi:10.1111/krt.1.272.7. MID:13.97382, PM.OD. PM.C. 00.558.3

 Jennife B. Wasserma, Moly Copeland, Mol y Upp, Street Aprilam, Effect of Soft Issuemobilization techniques on adhesion-related gain and function in the abdomen. A systematic seview, Journal of Bodywork and Movement Therapies, Volume 23, Issue 2,2018 plays 5:02-209 (SN 1813-88).
- Swallow. C; Scarwork: A timeline for treatment stimulus in sport, British Journal of Sports Medicine, Jan 2021
- Helen C. Scott, Clair is Sociatia e, Andrea Robinson, Luise Soft John ron, Ted Sorus, has sage an effect whether extron in the management of post-ope at the scarring? A scoping red exploural of Hand Therapy, Volume 35, Issue 2, v2 02 2, Pages 186199, ISSN 0384-1130
- 0994-1190

 Beerleyde bld is; Emma H dly; Teresa Young, Clare Sca fett; An evaluation of ascar works evice for cancer survivors experiencing adverseeffects of surgery and/or radio fiverapy; Science direct June 2002; Volume 44, doi 101016

 Tootbook on Scar Management by by L Téot