

## Stretching following a burn injury

Scarring following burn injury may lead to adverse physical consequences such as limitations in mobility, joint Range Of Motion (ROM) and day to day function. The extent and type of scar will depend on burn depth, severity, skin grafting, duration of wound healing, genetic factors and medical condition of the patient.

Burns that take more than 2-3 weeks to heal (if managed non-operatively), or those requiring a skin graft, are at risk of developing a hypertrophic scar. These are raised, thickened scars caused by excessive collagen formation during wound healing. If left unmanaged, scarring can continue to thicken and contract, limiting ROM (especially if it lies over a joint) and function.

Once cleared by VABS clinicians (usually prior to discharge), there is generally no restrictions to the prescription of stretching and strengthening programs.

### Stretches and ROM programs

Skin usually responds best to slow stretches, at end of available range of motion, with a sustained stretch for 30-60 seconds to allow collagen to give.

Active, active-assisted, and passive ROM exercises are useful, and repeated stretches will be required. Initially, the skin will blanch (become whitish in appearance); this is a sign that more stretching and scar massage is required.

It is especially important for people to complete stretching exercises of this joint for many months/years following burn injury to reduce the risk of contracture development

Keep in mind that these stretches can be painful, therefore breakthrough analgesia may be of benefit prior to sessions, and clients should be educated about the role of analgesia and therapy. Remaining linked in with their GPs for ongoing monitoring of pain is important for clients.

Burns crossing, or in close proximity to a joint need close attention. Following stretching, ROM maintenance may be achieved and sustained using splinting devices – speak with the VABS allied health team members if you have questions around specific splints prescribed (neck, axilla, elbow, wrist, hand).

*Following a burn injury, people don't necessarily need to join a gym –designing a program to do at home is a great way of encouraging consistency with stretches and supporting recovery in the home environment.*

## Precautions

Care must be taken not to knock or bump the skin as it will be vulnerable to skin breakdown. If, however, there ARE small areas of skin breakdown, there should be no need to cease or limit stretching/strengthening exercises – ensure the wound has appropriate dressings. IF the area fails to heal, or gets bigger in size, contact VABS for guidance.

|   |
|---|
| <b>Contact Details</b>  |
| Email: <a href="mailto:burnsunit@alfred.org.au">burnsunit@alfred.org.au</a> |
| Attention: Victorian Adult Burns Service, Allied Health                     |