Low-power laser treatment in patients with frozen shoulder: preliminary results.

Stergioulas A
EMLA Laser Health J 2007;2:46-67

"Laser treatment had produced a significant decrease in overall, night, and activity pain scores, shoulder pain and disability index (SPADI) scores and Croft shoulder disability questionnaire scores, in disability of arm, shoulder, and hand questionnaire (DASH) scores, in health-assessment questionnaire (HAQ).."

Frozen shoulder: the effectiveness of conservative and surgical interventions—systematic review

M M Favejee, B M A Huisstede, B W Koes
Br J Sports Med 2011 Br J Sports Med 2011;45:49-56 doi:10.1136/bjsm.2010.071431

Abstract Background A variety of therapeutic interventions is available for restoring motion and diminishing pain in patients with frozen shoulder. An overview article concerning the evidence for the effectiveness of these interventions is lacking.

Objective To provide an evidence-based overview regarding the effectiveness of conservative and surgical interventions to treat the frozen shoulder.

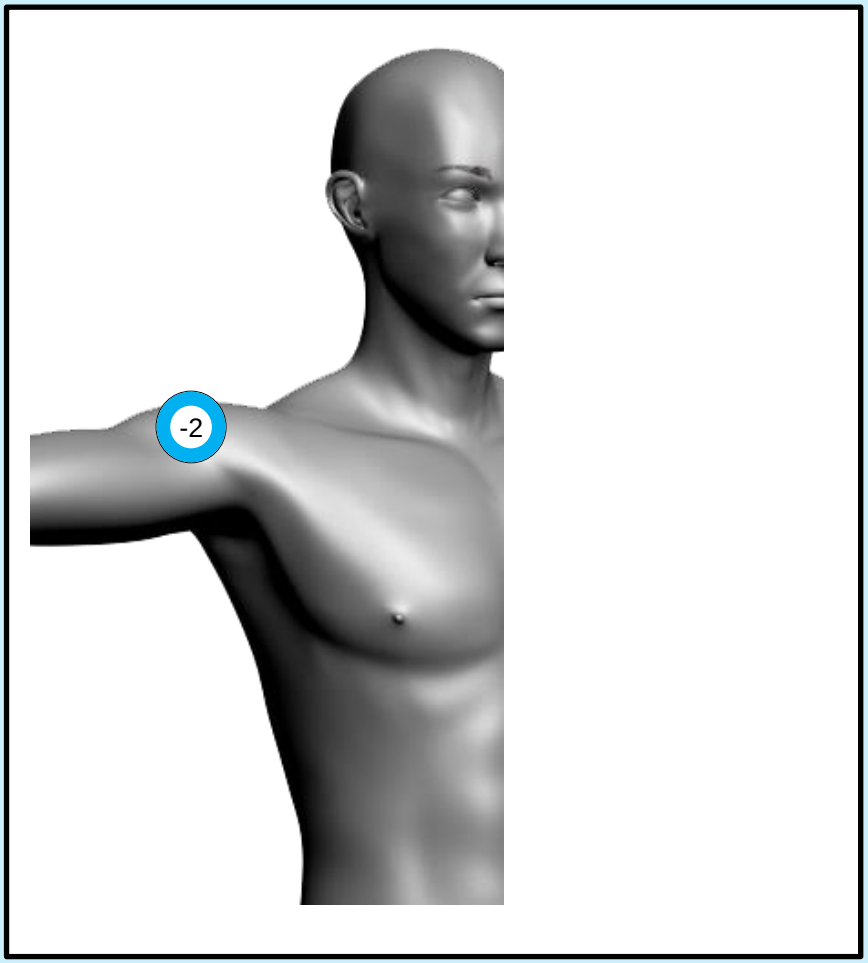
Methods The Cochrane Library, PubMed, Embase, Cinahl and Pedro were searched for relevant systematic reviews and randomised clinical trials (RCTs). Two [illegible] independently [illegible] data. A best-evidence synthesis was used to summarise the results.

Results Five Cochrane reviews and 18 RCTs were included studying the effectiveness of oral medication, injection therapy, physiotherapy, acupuncture, arthrographic distension and suprascapular nerve block (SSNB).

Conclusions We found strong evidence for the effectiveness of steroid injections and laser therapy in short-term and moderate evidence for steroid injections in mid-term follow-up. Moderate evidence was found in favour of mobilisation techniques in the short and long term, for the effectiveness of arthrographic distension alone and as an addition to active physiotherapy in the short term, for the effectiveness of oral steroids compared with no treatment or placebo in the short term, and for the effectiveness of SSNB compared with acupuncture, placebo or steroid injections. For other commonly used interventions no or only limited evidence of effectiveness was found. Most of the included studies reported short-term results, whereas symptoms of frozen shoulder may last up to 4 years. High quality RCTs studying long-term results are clearly needed in this field.

We found strong evidence for the effectiveness of steroid injections and laser therapy in short-term and moderate evidence for steroid injections in mid-term follow-up.

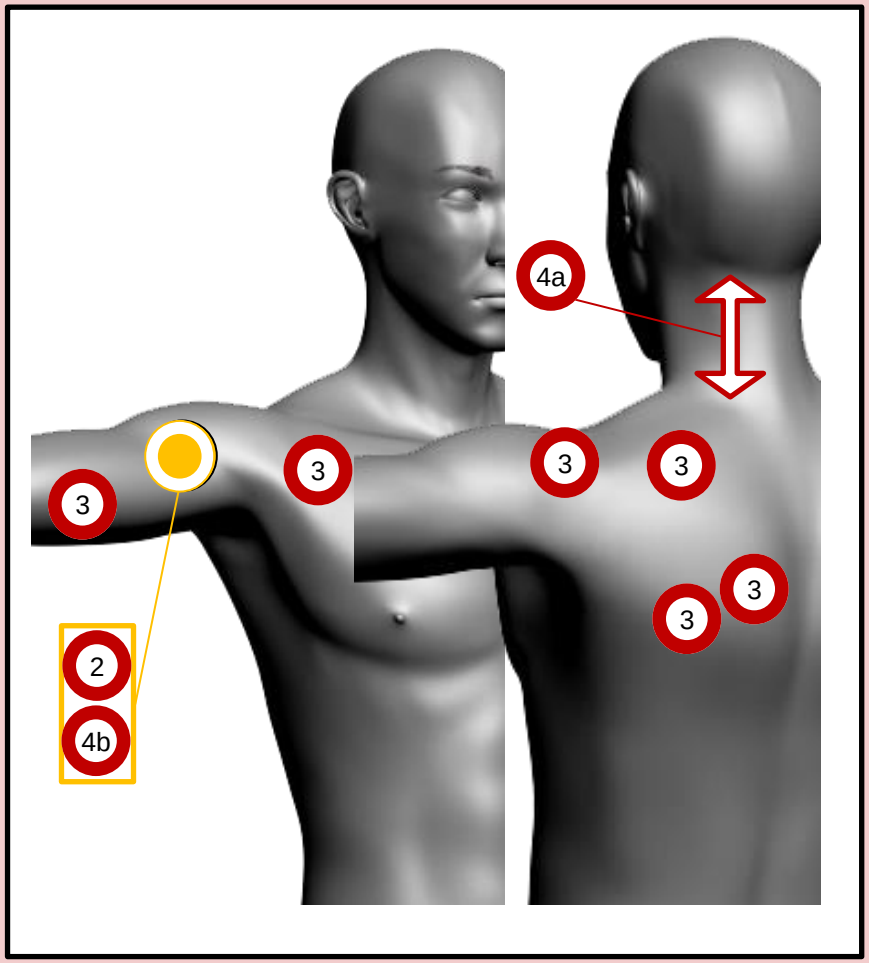
Priority Principle™: Adhesive Capsulitis



Priority	Principle	Frequency	Time
-2	<48 Hours (Acute Injury)	5-1000 Hz	3 Minutes

# of treatments					

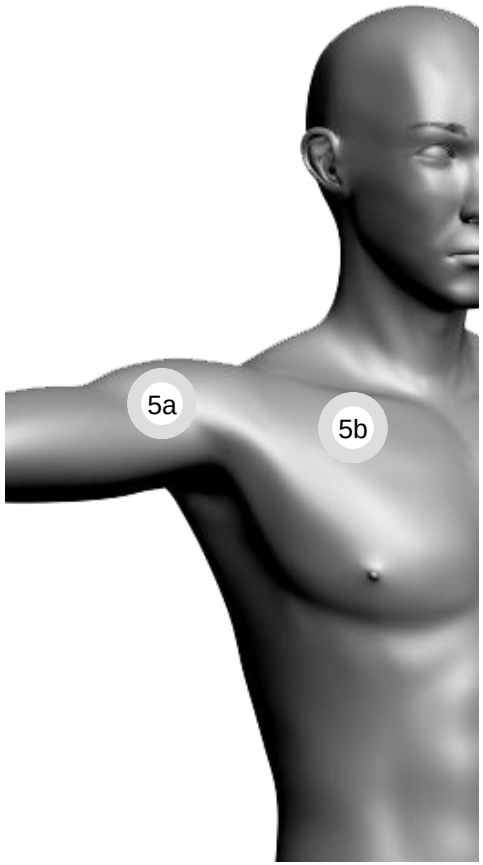
Priority Principle™: Adhesive Capsulitis



Priority	Principle	Frequency	Time
0	Pain (PRN)	(PRN)	
2nd	Inflammation	50 Hz	DOSE
3rd	Spasms	1000 Hz PRN	Pontinen's Principle
4th (a)	Pain (Systemic)	1000 Hz NRT	See Method
	OR		
(b)	Pain (Local)	1000, 3000 or 5000 Hz	3-5 minutes

# of treatments					

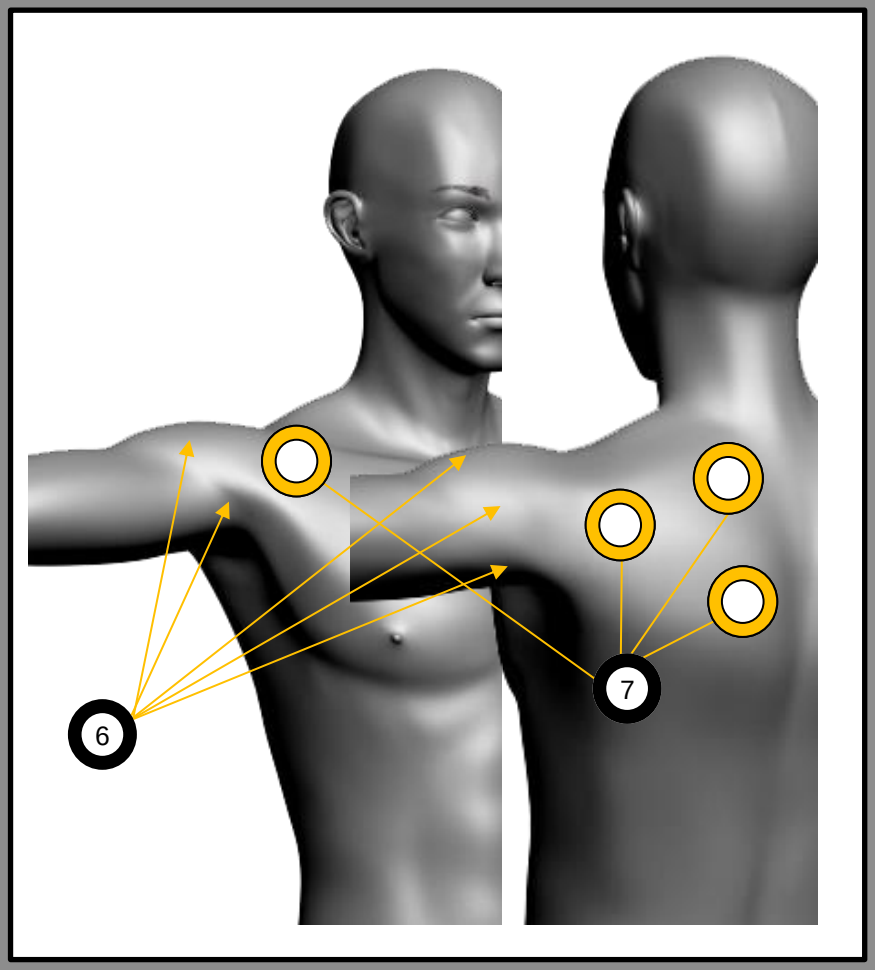
Priority Principle™: Adhesive Capsulitis



Priority		Principle	Frequency	Time
5th	(a)	Tissue Repair (Primary)	5-250 Hz	DOSE
		and		
	(b)	Tissue Repair (Secondary)	50 Hz PHT @ subclavian artery	5 minutes

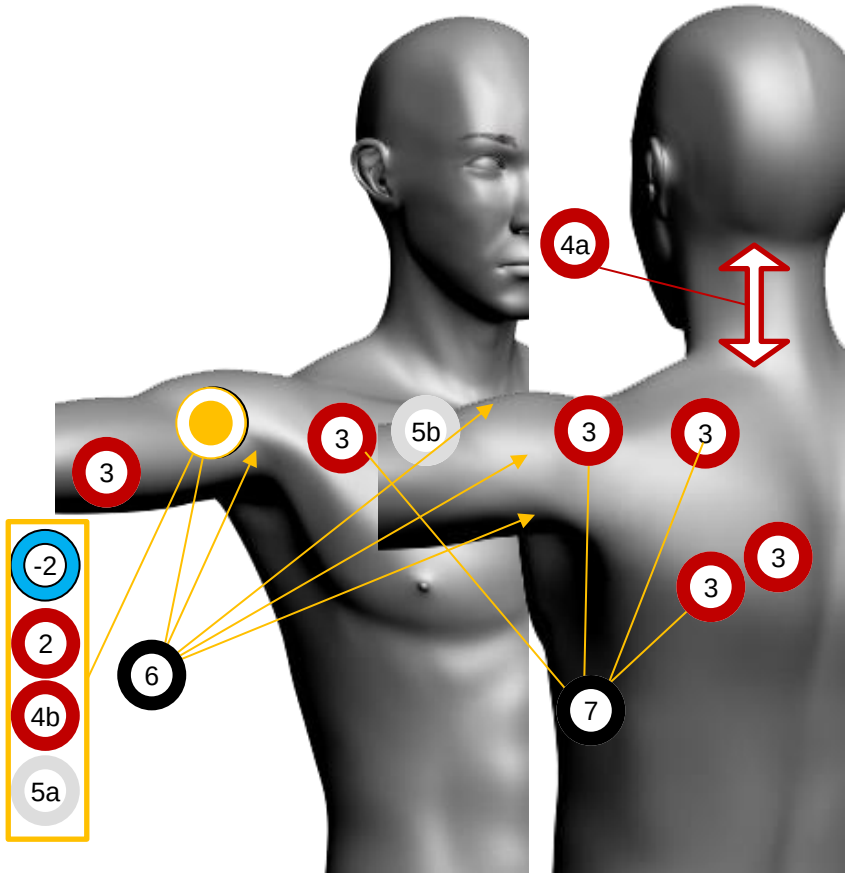
# of treatments					

Priority Principle™: Adhesive Capsulitis



Priority	Principle	Tendinitis	Time
6th	ROM	1000, 3000 or 5000 Hz	1-2 minutes per point
7th	Functional Strength	5-250 Hz	1-2 minutes per point

Priority Principle™: Adhesive Capsulitis



Priority	Principle	Frequency	Time
-2	<48 Hours (Acute Injury)	5-1000 Hz	3 Minutes
0	Pain (PRN)	(PRN)	
2nd	Inflammation	50 Hz	DOSE
3rd	Spasms	1000 Hz	Pontinen's Principle
4th (a)	Pain (Systemic)	1000 Hz NRT	See Method
	OR		
(b)	Pain (Local)	1000, 3000 or 5000 Hz	3-5 minutes
5th (a)	Tissue Repair (Primary)	5-250 Hz	DOSE
	and		
(b)	Tissue Repair (Secondary)	50 Hz PHT (subclavian)	5 minutes
6th	ROM	1000, 3000 Hz	2-3 minutes
7th	5-250 Hz	1-2 minutes per point	

Adhesive Capsulitis

- "Differentiated Movements" during "frozen stages": C and L Spines rotate in same direction while T Spine rotates in "opposite" directions.
- Laser therapy prior to mobilization/manipulation may ease the patient's discomfort during the active "stretch"
- Use "pain" control techniques during times of exacerbation
- During active "thaws", only exercises in the available ACTIVE ROM should be performed
- If a patient has no response or a negative response. Cut the treatment time in half or put a day of rest in-between treatments to allow the tissue time to adapt.