

Appendix 7.3 Physical therapy

Study: Diercks 2004⁷³

Outcome: Pain

Not reported

Study: Diercks 2004⁷³**Outcome: Function and disability measured using the Constant score**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
PT	Baseline	32	29.97	8.46	
Supervised neglect		45	28.6	8.64	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^b</i>
PT	3 months	32	39.5	8.45	0.000
Supervised neglect		45	55.87	14.26	
PT	6 months	32	47.91	7.51	0.000
Supervised neglect		45	63.31	15	
PT	9 months	32	54.59	7.89	0.000
Supervised neglect		45	69.96	15.44	
PT	12 months	32	58.97	8.79	0.000
Supervised neglect		45	76.71	13.6	
PT	15 months	32	65.06	11.12	0.000
Supervised neglect		45	81.2	13.45	
PT	18 months	32	70.69	12.47	0.000
Supervised neglect		45	86.82	14.41	
PT	21 months	32	76.75	14.41	0.001
Supervised neglect		45	87.8	12.8	
PT	24 months	32	79.56	16.09	0.004
Supervised neglect		45	88.78	11.26	

PT, physiotherapy.

a All interventions received concomitant home exercise.

b *p*-value is for between-group difference.

Study: Diercks 2004⁷³**Outcome: Range of movement – Constant score for external rotation**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>Range</i>	<i>p-value</i>
PT	Baseline	32	2	NR	NR
Supervised neglect		45	2	NR	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Median</i>	<i>Range</i>	<i>p-value</i>
PT	24 months	32	10	NR	NR
Supervised neglect		45	8	NR	

NR, not reported; PT, physiotherapy.

a All interventions received concomitant home exercise.

Note: Other range of movements reported, which were not of relevance to this review and are therefore not presented in the data extraction tables, included the range of movement part of the Constant score for forward elevation and lateral elevation.

Study: Diercks 2004⁷³**Outcome: Quality of life**

Not reported

Study: Diercks 2004⁷³**Outcome: Other**

Not reported

Study: Diercks 2004⁷³**Outcome: Adverse events**

Not reported

Study: Dogru 2008⁵¹**Outcome: Pain (pain overall) measured using SPADI 5-item pain subscale**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>		
Ultrasound + PT	Baseline	25	66.9	13.8		
Sham ultrasound + PT		25 (24 ^b)	57.7	18		
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>		<i>p-value^c</i>
Ultrasound + PT	2 weeks	25	40.1	18.6		0.37
Sham ultrasound + PT		24	35.6	13.7		
Ultrasound + PT	3 months	25	31	20		0.39
Sham ultrasound + PT		24	25.5	18.3		

Outcome: Pain (pain on activity) measured using 0–100 mm VAS

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>		
Ultrasound + PT	Baseline	25	80.8	18.2		
Sham ultrasound + PT		25 (24 ^b)	78	18.4		
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>		<i>p-value^c</i>
Ultrasound + PT	2 weeks	25	39.6	25.3		0.56
Sham ultrasound + PT		24	40.7	20.3		
Ultrasound + PT	3 months	25	24.8	29.9		0.83
Sham ultrasound + PT		24	23.6	25.5		

PT, physiotherapy.

a All interventions received concomitant home exercise.

b One participant dropped out in the first week; all analysis and baseline data were based on 24 participants.

c *p*-value is for between-group difference.

Study: Dogru 2008⁵¹**Outcome: Function and disability measured using SPADI total score**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
Ultrasound + PT	Baseline	25	66.6	14.6	
Sham ultrasound + PT		25 (24 ^b)	62.1	17.3	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^c</i>
Ultrasound + PT	2 weeks	25	37	18.6	0.72
Sham ultrasound + PT		24	38.2	17.8	
Ultrasound + PT	3 months	25	29.5	21.6	0.5
Sham ultrasound + PT		24	26.4	19.6	

Outcome: Function and disability measured by SPADI 8-item disability subscale

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
Ultrasound + PT	Baseline	25	66.5	13.7	
Sham ultrasound + PT		25 (24 ^b)	63.1	13.8	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^c</i>
Ultrasound + PT	2 weeks	25	38.6	17.4	1
Sham ultrasound + PT		24	38.1	15.9	
Ultrasound + PT	3 months	25	30	20.9	0.45
Sham ultrasound + PT		24	25.5	17.8	

PT, physiotherapy.

a All interventions received concomitant home exercise.

b One participant dropped out in the first week; all analysis and baseline data were based on 24 participants.

c *p*-value is for between-group difference.

Study: Dogru 2008⁵¹**Outcome: Range of movement – passive abduction (°)**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
Ultrasound + PT	Baseline	25	101.4	20.9	
Sham ultrasound + PT		25 (24 ^b)	113.5	14.1	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^c</i>
Ultrasound + PT	2 weeks	25	142.8	25.9	0.72
Sham ultrasound + PT		24	146	26.2	
Ultrasound + PT	3 months	25	147.8	30.1	0.98
Sham ultrasound + PT		24	148	26.5	

Outcome: Range of movement – external rotation (°)

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
Ultrasound + PT	Baseline	25	34.8	14.7	
Sham ultrasound + PT		25 (24 ^b)	55.8	17.2	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^c</i>
Ultrasound + PT	2 weeks	25	25	58	0.004
Sham ultrasound + PT		24	24	71.3	
Ultrasound + PT	3 months	25	25	65.7	0.05
Sham ultrasound + PT		24	24	75.4	

Outcome: Range of movement – internal rotation (°)

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
Ultrasound + PT	Baseline	25	29.2	15.7	
Sham ultrasound + PT		25 (24 ^b)	47.3	18.8	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^c</i>
Ultrasound + PT	2 weeks	25	52.2	15.7	0.12
Sham ultrasound + PT		24	58.3	15.5	
Ultrasound + PT	3 months	25	57.4	13.8	0.21
Sham ultrasound + PT		24	60.9	15.3	

PT, physiotherapy.

a All interventions received concomitant home exercise.

b One participant dropped out in the first week; all analysis and baseline data were based on 24 participants.

c *p*-value is for between-group difference.

Study: Dogru 2008⁵¹**Outcome: Quality of life – SF-36 PCS**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>		
Ultrasound + PT	Baseline	25	38.9	7.9		
Sham ultrasound + PT		25 (24 ^b)	36.6	9.8		
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>		<i>p-value^c</i>
Ultrasound + PT	3 months	25	44.2	8.4		0.83
Sham ultrasound + PT		24	44.6	8.8		

Outcome: Quality of life – SF-36 MCS

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>		
Ultrasound + PT	Baseline	25	43.5	10.2		
Sham ultrasound + PT		25 (24 ^b)	42	7.7		
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>		<i>p-value^c</i>
Ultrasound + PT	3 months	25	44.8	11.5		0.81
Sham ultrasound + PT		24	43.8	10.6		

PT, physiotherapy.

a All interventions received concomitant home exercise.

b One participant dropped out in the first week; all analysis and baseline data were based on 24 participants.

c *p*-value is for between-group difference.

Study: Dogru 2008⁵¹**Outcome: Other outcome**

Not reported

Study: Dogru 2008⁵¹**Outcome: Adverse events**

Not reported

Study: Dundar 2009⁷⁴**Outcome: Pain (pain at rest) measured using VAS 0–10 cm**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	Baseline	29	5.44	1.51
Conventional PT		28	5.54	1.64
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	4 weeks	29	2.86	1.96
Conventional PT		28	4.11	2.03
Continuous passive motion	12 weeks	29	2.41	1.72
Conventional PT		28	3.76	1.91

Outcome: Pain (pain on movement) measured using VAS 0–10 cm

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	Baseline	29	6.34	1.99
Conventional PT		28	6.31	1.86
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	4 weeks	29	4.06	2.13
Conventional PT		28	4.93	1.87
Continuous passive motion	12 weeks	29	3.75	1.92
Conventional PT		28	4.65	1.65

Outcome: Pain (pain at night) measured using VAS 0–10 cm

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	Baseline	29	6.1	1.75
Conventional PT		28	6	1.69
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	2 weeks	29	3.91	2.61
Conventional PT		28	4.84	1.66
Continuous passive motion	12 weeks	29	3.74	2.14
Conventional PT		28	4.64	1.77

Outcome: Pain (pain overall) measured using VAS 0–10 cm

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	Baseline	29	5.96	2
Conventional PT		28	5.92	1.8
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	2 weeks	29	4.01	2.1
Conventional PT		28	4.58	1.28
Continuous passive motion	12 weeks	29	3.79	2.01
Conventional PT		28	4.39	1.82

PT, physiotherapy.

Study: Dunder 2009⁷⁴**Outcome: Function and disability measured by SPADI 8-item disability subscale**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	Baseline	29	5.78	1.7
PT		28	5.69	1.84
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	4 weeks	29	4.03	1.58
PT		28	4.29	1.91
Continuous passive motion	12 weeks	29	3.82	1.61
PT		28	3.99	1.84

Outcome: Function and disability measured by Constant score

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	Baseline	29	58.86	9.54
PT		28	57.59	9.32
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	4 weeks	29	74.86	9.64
PT		28	70.54	9.38
Continuous passive motion	12 weeks	29	79.63	9.45
PT		28	76.26	9.45

PT, physiotherapy.

a All interventions received concomitant home exercise.

Study: Dundar 2009⁷⁴**Outcome: Range of movement – passive abduction (°)**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	Baseline	29	106.86	24.5
PT		28	103.45	23.6
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	4 weeks	29	137.96	16.26
PT		28	127.67	26.66
Continuous passive motion	12 weeks	29	141.75	13.11
PT		28	137.33	15.31

Outcome: Range of movement – passive external rotation (°)

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	Baseline	29	48.8	21.3
PT		28	49.7	21.2
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	4 weeks	29	65.82	17.54
PT		28	64.9	21.52
Continuous passive motion	12 weeks	29	68.22	17.11
PT		28	68.98	14.22

Outcome: Range of movement – passive internal rotation (°)

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	Baseline	29	44.19	19.06
PT		28	45.02	19.1
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Continuous passive motion	4 weeks	29	62.89	19.96
PT		28	64.45	17.8
Continuous passive motion	12 weeks	29	66.27	17.14
PT		28	67.19	18.47

PT, physiotherapy.

a All interventions received concomitant home exercise.

Note: Other range of movement reported, which was not of relevance to this review and is therefore not presented in the data extraction table, was passive flexion.

Study: Dundar 2009⁷⁴**Outcome: Quality of life**

Not reported

Study: Dundar 2009⁷⁴**Outcome: Other outcome**

Not reported

Study: Dunder 2009⁷⁴**Outcome: Adverse events**

No side effects were observed during the study

Study: Leung 2007⁷⁵**Outcome: Pain**

Not reported

Study: Leung 2007⁷⁵**Outcome: Function and disability measured by SPADI 8-item disability subscale**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>		
SWD + stretching	Baseline	10	41.5	12.1		
HP + stretching		10	38.9	11.8		
No intervention		10	33.3	12.5		
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>		<i>p-value^b</i>
SWD + stretching	2 weeks	10	56.3	15		0.046
HP + stretching		10	54.2	15.4		
No intervention		10	45.3	11.2		
SWD + stretching	4 weeks	10	67.8	15.1		NR
HP + stretching		10	56.5	14.1		
No intervention		10	46.1	12.7		
SWD + stretching	8 weeks	10	71.3	19.3		NR
HP + stretching		10	57.8	16.3		
No intervention		10	53.8	16.5		

NR, not reported.

a All interventions received concomitant home exercise.

b *p*-value for between-group difference.

Study: Leung 2007⁷⁵**Outcome: Range of movement – external rotation (arm by side) (°)**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>		
SWD + stretching	Baseline	10	50.4	14.1		
HP + stretching		10	28.2	23.4		
No intervention		10	39.5	21.7		
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>		<i>p-value^b</i>
SWD + stretching	2 weeks	10	59.3	19.8		0.09
HP + stretching		10	27.6	18.7		
No intervention		10	39.5	20.6		
SWD + stretching	4 weeks	10	60.9	14.5		NR
HP + stretching		10	32.6	21.1		
No intervention		10	43.3	22.6		

SWD + stretching	8 weeks	10	62.1	11.5	NR
HP + stretching		10	32.6	21.7	
No intervention		10	41.1	23.2	
Outcome: Range of movement – external rotation (arm at 90° abduction)					
<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
SWD + stretching	Baseline	10	51.6	18.2	
HP + stretching		10	26.7	26	
No intervention		10	42.5	18.7	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^b</i>
SWD + stretching	2 weeks	10	57.8	22.7	0.021
HP + stretching		10	27	26.5	
No intervention		10	43.4	20.8	
SWD + stretching	4 weeks	10	59.6	19.3	NR
HP + stretching		10	30.1	26.8	
No intervention		10	45.7	23.3	
SWD + stretching	8 weeks	10	60.6	11	NR
HP + stretching		10	30.5	24.4	
No intervention		10	49	27.2	
Outcome: Range of movement – hand behind back (cm)					
<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
SWD + stretching	Baseline	10	12.3	4.8	NR
HP + stretching		10	24.9	11.5	
No intervention		10	16	9.6	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^b</i>
SWD + stretching	2 weeks	10	7.2	6.1	0.004
HP + stretching		10	22.2	11.5	
No intervention		10	14.7	8.1	
SWD + stretching	4 weeks	10	7.6	5.7	NR
HP + stretching		10	18.5	8.9	
No intervention		10	14.7	8	
SWD + stretching	8 weeks	10	6	7.3	NR
HP + stretching		10	18.3	7.5	
No intervention		10	13	6.7	

HP, heat pack; NR, not reported.

a All interventions received concomitant home exercise.

b *p*-value for between-group difference.

Note: Other range of movements reported, which were not of relevance to this review and are therefore not presented in the data extraction tables, included flexion and cross-body adduction.

Study: Leung 2007⁷⁵

Outcome: Quality of life

Not reported

Study: Leung 2007⁷⁵

Outcome: Other

Not reported

Study: Leung 2007⁷⁵**Outcome: Adverse events**

Not reported

Study: Maricar 1999⁷⁶**Outcome: Pain**

Not reported

Study: Maricar 1999⁷⁶**Outcome: Function and disability**

Not reported

Study: Maricar 1999⁷⁶**Outcome: Range of movement – external rotation, internal rotation and hand behind back**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
PT	Baseline	54	NR	NR
Exercises			NR	NR

<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline, p-values</i>
PT	3, 5, 7 and 8 weeks	16	Both groups showed significant improvement in all shoulder range of movements ($p < 0.001$). There was no significant difference between groups at weeks 3, 5, 7 or 8
Exercises		16	

NR, not reported; PT, physiotherapy.

a All interventions received concomitant home exercise.

Note: Other range of movements reported, which were not of relevance to this review and are therefore not presented in the data extraction tables, included total elevation through flexion and hand behind neck.

Study: Maricar 1999⁷⁶**Outcome: Quality of life**

Not reported

Study: Maricar 1999⁷⁶**Outcome: Adverse events**

Not reported

Study: Maricar 1999⁷⁶**Outcome: Other outcome**

Not reported

Study: Pajareya 2004⁷⁷**Outcome: Pain (no. of analgesics tablets taken)**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
PT	Baseline	61	Baseline data not reported	
No intervention (information only)		61		
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
PT	3 weeks	60	61.38	
No intervention (information only)		59	58.59	

PT, physiotherapy.

Study: Pajareya 2004⁷⁷**Outcome: Function and disability measured by SPADI 8-item disability subscale**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
PT	Baseline	61 (60 ^a)	54.93	21.3
No intervention (information only)		61 (59 ^a)	50.6	16.6
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD</i>
PT	3 weeks	60	20.5	15.4
No intervention (information only)		59	11.9	14.2

Outcome: Function and disability measured by global rating of pain and disability

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>No shoulder complaint, n (%)</i>
PT	Baseline	61 (60 ^a)	0
No intervention (information only)		61 (59 ^a)	0
<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Some pain or limitation but does not interfere with everyday life, n (%)</i>
PT	Baseline	61 (60 ^a)	0
No intervention (information only)		61 (59 ^a)	0
<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Minimal inconvenience, n (%)</i>
PT	Baseline	61 (60 ^a)	9 (15%)
No intervention (information only)		61 (59 ^a)	12 (20.3%)
<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Moderate inconvenience, n (%)</i>
PT	Baseline	61 (60 ^a)	35 (58.3%)
No intervention (information only)		61 (59 ^a)	34 (57.6%)
<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Marked inconvenience, n (%)</i>
PT	Baseline	61 (60 ^a)	16 (26.7%)
No intervention (information only)		61 (59 ^a)	13 (22.3%)

PT, physiotherapy.

a All analyses and baseline data based on the number followed up at 3 weeks.

Study: Pajareya 2004⁷⁷**Outcome: Range of movement – abduction (°)**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
PT	Baseline	61 (60 ^a)	121.9	27.8
No intervention (information only)		61 (59 ^a)	121.3	27.8
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD</i>
PT	3 weeks	60	21.9	21
No intervention (information only)		59	14.7	18.1

Outcome: Range of movement – external rotation (°)

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
PT	Baseline	61 (60 ^a)	74.8	22.1
No intervention (information only)		61 (59 ^a)	75.3	16
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD</i>
PT	3 weeks	60	21.3	15.3
No intervention (information only)		59	18.3	15.4

Outcome: Range of movement – internal rotation (°)

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
PT	Baseline	61 (60 ^a)	41.2	10.6
No intervention (information only)		61 (59 ^a)	41.1	10.3
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD</i>
PT	3 weeks	60	6.3	7.7
No intervention (information only)		59	3	7

PT, physiotherapy.

a All analyses and baseline data based on the number followed up at 3 weeks.

Study: Pajareya 2004⁷⁷**Outcome: Quality of life**

Not reported

Study: Pajareya 2004⁷⁷**Outcome: Adverse events**

Patients were asked, 'Have the trial drugs and/or treatment programme upset you in any way?', and were examined for signs of ecchymosis or burn during range of movement evaluation

PT 10 episodes of pain (in 4 patients) that persisted for > 2 hours after treatment

No intervention (information only) 15 patients had gastrointestinal side effects (6 had severe dyspepsia and discontinued NSAIDs; 2 had severe oedema; 1 had severe headache that subsided with discontinuation of NSAIDs)

Study: Pajareya 2004⁷⁷**Outcome: Other – treatment success**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>n (%) patients who had successful treatment</i>
PT	Baseline	61 (60 ^a)	NA
No intervention (information only)		61 (59 ^a)	NA

<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>n (%) patients who had successful treatment</i>
PT	3 weeks	60	21 (35)
No intervention (information only)		59	11 (18.6)
PT	6 weeks	60	35 (61.4)
No intervention (information only)		59	21 (60.8)
PT	12 weeks	60	43 (76.8)
No intervention (information only)		59	31 (60.8)
PT	24 weeks	60	45 (80.4)
No intervention (information only)		59	42 (82.4)

Outcome: Other – satisfaction^b

<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>No. patients 'very satisfied'</i>
PT	3 weeks	60	5
No intervention (information only)		59	1

<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>No. patients 'moderately satisfied'</i>
PT	3 weeks	60	7
No intervention (information only)		59	1

<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>No. patients 'unsatisfied'</i>
PT	3 weeks	60	24
No intervention (information only)		59	13

<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>No. patients 'very unsatisfied'</i>
PT	3 weeks	60	23
No intervention (information only)		59	45

NA, not applicable; PT, physiotherapy.

a All analyses and baseline data based on the number followed up at 3 weeks.

b There may be an error in these data as responses for the PT group add up to 59 and those for the control group add up to 60.

Study: Stergioulas 2008¹⁶**Outcome: Pain (pain overall) measured using VAS 0–100 mm**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Laser therapy	Baseline	37	70.90	8.51
Placebo laser		37	67.03	8.12
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Laser therapy	4 weeks	31	32.34	7.44
Placebo laser		32	51.15	8.22
Laser therapy	8 weeks	31	27.41	6.72
Placebo laser		32	40.18	7.99
Laser therapy	16 weeks	31	23.92	6.11
Placebo laser		32	36.6	7.09

Outcome: Pain (pain at night) measured using VAS 0–100 mm

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Laser therapy	Baseline	37	77.91	9.23
Placebo laser		37	72.39	8.86
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Laser therapy	4 weeks	31	41.42	7.69
Placebo laser		32	55.67	8.49
Laser therapy	8 weeks	31	24.18	6.56
Placebo laser		32	49.33	8.05
Laser therapy	16 weeks	31	19.38	5.77
Placebo laser		32	42.35	7.57

Outcome: Pain (pain on activity) measured using VAS 0–100 mm

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Laser therapy	Baseline	37	80.55	8.82
Placebo laser		37	73.66	8.74
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Laser therapy	4 weeks	31	45.57	8.27
Placebo laser		32	67.75	8.03
Laser therapy	8 weeks	31	30.82	6.88
Placebo laser		32	51.39	8.58
Laser therapy	16 weeks	31	22.54	6.02
Placebo laser		32	39.78	7.65

Study: Stergioulas 2008¹⁶**Outcome: Function and disability measured by SPADI total score**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
Laser	Baseline	37	65.78	13.23	
Placebo laser		37	61.67	14.22	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^b</i>
Laser	4 weeks	31	36.57	11.31	<0.05
Placebo laser		32	48.35	13.61	

Laser	8 weeks	31	25.73	10.72	<0.01
Placebo laser		32	39.84	11.11	
Laser	16 weeks	31	19.92	10.04	<0.01
Placebo laser		32	33.75	10.43	
Outcome: Function and disability measured by Croft score					
<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
Laser	Baseline	37	13.85	4.44	
Placebo laser		37	15.63	4.79	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^b</i>
Laser	4 weeks	31	7.69	4.03	<0.05
Placebo laser		32	14.52	4.37	
Laser	8 weeks	31	6.93	3.87	<0.05
Placebo laser		32	11.27	4.23	
Laser	16 weeks	31	5.52	4.00	<0.005
Placebo laser		32	12.65	4.31	
Outcome: Function and disability measured by DASH score					
<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
Laser	Baseline	37	48.56	14.19	
Placebo laser		37	43.09	13.78	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^b</i>
Laser	4 weeks	31	26.67	10.44	NR
Placebo laser		32	27.35	11.39	
Laser	8 weeks	31	20.64	9.89	<0.05
Placebo laser		32	29.88	10.78	
Laser	16 weeks	31	15.23	7.98	<0.005
Placebo laser		32	25.74	11.45	
Outcome: Function and disability measured by HAQ score					
<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
Laser	Baseline	37	2.03	0.81	
Placebo laser		37	2.24	0.92	
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>	<i>p-value^b</i>
Laser	4 weeks	31	1.43	0.72	<0.001
Placebo laser		32	2.14	0.78	
Laser	8 weeks	31	1.27	0.56	<0.005
Placebo laser		32	2.02	0.8	
Laser	16 weeks	31	1.23	0.54	NR
Placebo laser		32	1.54	0.77	

NR, not reported.

a All interventions received concomitant home exercise.

b *p*-value is for between-group difference.

Study: Stergioulas 2008¹⁶**Outcome: Range of movement – active abduction (°)**

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Laser	Baseline	37	65.56	12.05
Placebo laser		37	59.37	10.89
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Laser	4 weeks	31	78.67	13.76
Placebo laser		32	69.68	12.87
Laser	8 weeks	31	81.94	13.71
Placebo laser		32	76.47	9.65
Laser	16 weeks	31	85.63	13.95
Placebo laser		32	80.43	13.58

Outcome: Range of movement – external rotation (°)

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
Laser	Baseline	37	31.52	9.53
Placebo laser		37	28.63	8.79
<i>Intervention^a</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean</i>	<i>SD</i>
Laser	4 weeks	31	35.33	9.91
Placebo laser		32	33.56	9.12
Laser	8 weeks	31	37.13	9.97
Placebo laser		32	35.08	9.44
Laser	16 weeks	31	42.72	10.05
Placebo laser		32	38.53	9.9

a All interventions received concomitant home exercise.

Note: Other range of movement reported, which was not of relevance to this review and is therefore not presented in the data extraction tables, was active flexion.

Study: Stergioulas 2008¹⁶**Outcome: Quality of life**

Not reported

Study: Stergioulas 2008¹⁶**Outcome: Other**

Not reported

Study: Stergioulas 2008¹⁶**Outcome: Adverse events**

Authors stated no complications were reported

Study: Vermeulen 2006⁴⁰**Outcome: Pain (pain at rest) measured using VAS 0–100 mm**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>IQR</i>
HGMT	Baseline	49	28	15.0 to 65.0
LGMT		51	36	20.0 to 64.5
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>95% CI</i>
HGMT	3 months	49	-15	-5.9 to -24.0
LGMT		51	-22.1	-15.6 to -28.7
HGMT	6 months	49	-22.3	-32.1 to -12.4
LGMT		51	-24.3	-31.3 to -17.4
HGMT	12 months	49	-23.9	-31.7 to -16.0
LGMT		51	-23	-30.8 to -15.2

Pain (pain during movement) measured using VAS 0–100 mm

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>IQR</i>
HGMT	Baseline	49	59	46.0 to 78.0
LGMT		51	62	37.5 to 77.0
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>95% CI</i>
HGMT	3 months	49	-26.9	-19.0 to -34.7
LGMT		51	-24.3	-16.1 to -32.5
HGMT	6 months	49	-31.4	-39.5 to -23.2
LGMT		51	-31.9	-39.2 to -24.5
HGMT	12 months	49	-39.2	-47.2 to -31.2
LGMT		51	-32.6	-41.4 to -23.8

Pain (pain at night) measured using VAS 0–100 mm

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>IQR</i>
HGMT	Baseline	49	72	47.0 to 84.0
LGMT		51	63	31.0 to 78.5
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>95% CI</i>
HGMT	3 months	49	-31.3	-20.3 to -42.4
LGMT		51	-27.5	-19.0 to -35.9
HGMT	6 months	49	-38.8	-50.8 to -26.9
LGMT		51	-31.7	-40.1 to -23.4
HGMT	12 months	49	-43.7	-53.6 to -33.8
LGMT		51	-35.9	-44.4 to -27.4

Study: Vermeulen 2006^a**Outcome: Function and disability measured using the shoulder rating questionnaire**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>IQR</i>
HGMT	Baseline	49	37.5	28.7 to 47.0
LGMT		51	39.5	31.0 to 49.6
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD^a</i>
HGMT	3 months	49	25.8	17.4
LGMT		51	23.4	15.1
HGMT	6 months	49	32.3	19.3
LGMT		51	27.8	15.6
HGMT	12 months	49	38.3	19.2
LGMT		51	31.7	17.6

Outcome: Function and disability measured using the shoulder disability questionnaire (Dutch version)

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>IQR</i>
HGMT	Baseline	49	81.2	75.0 to 87.5
LGMT		51	81.2	71.9 to 93.7
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD^a</i>
HGMT	3 months	49	-29.9	25.2
LGMT		51	-24.7	24.5
HGMT	6 months	49	-38.9	32.0
LGMT		51	-33.2	27.5
HGMT	12 months	49	-50.0	30.5
LGMT		51	-38.8	27.5

a Computed from 95% CIs.

Study: Vermeulen 2006^a**Outcome: Range of movement – active abduction (°)**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>IQR</i>
HGMT	Baseline	49	75	60.0 to 90.0
LGMT		51	75	67.5 to 85.0
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD^a</i>
HGMT	3 months	49	46.3	33.0
LGMT		51	36.3	28.8
HGMT	6 months	49	55.8	37.1
LGMT		51	46.9	31.8
HGMT	12 months	49	72.9	31.5
LGMT		51	60.3	32.5

Outcome: Range of movement – active external rotation (°)

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>IQR</i>
HGMT	Baseline	49	20	10.0 to 25.0
LGMT		51	20	7.5 to 30.0

<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD^a</i>
HGMT	3 months	49	11.6	11.3
LGMT		51	9.3	14.6
HGMT	6 months	49	15.9	12.7
LGMT		51	13.2	13.1
HGMT	12 months	49	20.8	12.0
LGMT		51	15.9	16.2

Outcome: Range of movement – passive abduction (°)

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>IQR</i>
HGMT	Baseline	49	85	70.0 to 95.0
LGMT		51	85	80.0 to 95.0

<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD^a</i>	<i>p-value^b</i>
HGMT	3 months	49	47.9	31.7	<0.05
LGMT		51	34.8	26.5	
HGMT	6 months	49	57.1	34.5	
LGMT		51	46.1	29.4	
HGMT	12 months	49	72.4	29.4	<0.05
LGMT		51	59.9	29.1	

Outcome: Range of movement – passive external rotation (°)

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>IQR</i>
HGMT	Baseline	49	20	10.0 to 30.0
LGMT		51	20	12.5 to 35.0

<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD^a</i>	<i>p-value^b</i>
HGMT	3 months	49	13.1	11.8	
LGMT		51	11.7	13.1	
HGMT	6 months	49	16.8	13.4	
LGMT		51	12.7	12.4	
HGMT	12 months	49	21.9	14.3	<0.05
LGMT		51	15.4	17.4	

a Computed from 95% CIs.

b Determined by analysis of covariance with correction for baseline values.

Note: Other range of movements reported, which were not of relevance to this review and are therefore not presented in the data extraction tables, included active forward flexion and passive forward flexion.

Study: Vermeulen 2006⁴⁰**Outcome: Quality of life – SF-36 PCS**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>IQR</i>
HGMT	Baseline	49	43.8	31.9 to 54.2
LGMT		51	45.1	36.3 to 57.5
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD^a</i>
HGMT	3 months	49	14.2	16.0
LGMT		51	13.6	17.8
HGMT	6 months	49	19.2	18.8
LGMT		51	17.1	17.8
HGMT	12 months	49	23.2	21.9
LGMT		51	22.8	19.7

Outcome: Quality of life – SF-36 MCS

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Median</i>	<i>IQR</i>
HGMT	Baseline	49	73.4	51.9 to 87.0
LGMT		51	73.2	51.9 to 83.5
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD^a</i>
HGMT	3 months	49	8.6	17.1
LGMT		51	4.5	23.4
HGMT	6 months	49	8.2	20.4
LGMT		51	7.9	21.7
HGMT	12 months	49	7.7	20.4
LGMT		51	10.2	4.8

a Computed from 95% CIs.

Study: Vermeulen 2006⁴⁰**Outcome: Other outcome**

Not reported

Study: Vermeulen 2006⁴⁰**Outcome: Adverse events**

Not reported

Study: Yang 2007⁷⁸**Outcome: Pain**

Not reported

Study: Yang 2007⁷⁸**Outcome: Function and disability measured using the Flexilevel Scale of Shoulder Function**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
ERM + MRM	Baseline	14	NR	NR
MWM + MRM		14	NR	NR
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean % of change</i>	<i>SD</i>
ERM + MRM	6 weeks	14	19.9	8.1
MWM + MRM		13	17.25	12.2

NR, not reported.

Study: Yang 2007⁷⁸**Outcome: Range of movement – external rotation (°)**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
ERM + MRM	Baseline	14	NR	NR
MWM + MRM		14	NR	NR
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean % of change</i>	<i>SD</i>
ERM + MRM	6 weeks	14	36.4	24.3
MWM + MRM		13	34.2	14.3

Outcome: Range of movement – internal rotation (°)

<i>Intervention^a</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>
ERM + MRM	Baseline	14	NR	NR
MWM + MRM		14	NR	NR
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean % of change</i>	<i>SD</i>
ERM + MRM	6 weeks	14	20.5	24.4
MWM + MRM		13	45.6	38.5

NR, not reported.

Note: The FASTRAK motion analysis system, arm elevation, scapular tipping and scapulohumeral rhythm were also reported.

Study: Yang 2007⁷⁸**Outcome: Quality of life**

Not reported

Study: Yang 2007⁷⁸**Outcome: Other**

Not reported

Study: Yang 2007⁷⁸

Outcome: Adverse events

Not reported

Study: Yan 2005⁷²

Outcome: Pain

Not reported

Study: Yan 2005⁷²

Outcome: Function and disability

Not reported

Study: Yan 2005⁷²

Outcome: Range of movement

Measures of interest not reported

Note: Arm bending towards the front of the shoulder, arm stretching towards the lower back and arm stretching of upper outside of the arm were reported.

Study: Yan 2005⁷²

Outcome: Other – rate of improvement^a

<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>No. of patients with bad outcome</i>
Dumb-bell gymnastics	3 months	26	0
Barehanded exercises		28	7
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>No. of patients with average outcome</i>
Dumb-bell gymnastics	3 months	26	0
Barehanded exercises		28	16
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>No. of patients with good outcome</i>
Dumb-bell gymnastics	3 months	26	2
Barehanded exercises		28	5
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>No. of patients with excellent outcome</i>
Dumb-bell gymnastics	3 months	26	24
Barehanded exercises		28	0

a Rate of improvement: excellent (pain disappeared and normal function completely recovered), good (a little pain on movement and normal function partially recovered), average (some reduction in pain and improvement in range of movement), bad (no improvement in pain and no change in range of movement).

Study: Yan 2005⁷²**Outcome: Quality of life**

Not reported

Study: Yan 2005⁷²**Outcome: Other**

Not reported

Study: Yan 2005⁷²**Outcome: Adverse events**

Not reported

Study: Wies 2003⁷¹**Outcome: Pain**

Not reported

Study: Wies 2003⁷¹**Outcome: Function and disability measured by SPADI total score**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
PT	Baseline	10	NR	NR	
Osteopathy technique		10	NR	NR	
Control		10	NR	NR	
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD</i>	<i>p-value^a</i>
PT	9 weeks	10	18.8	23.6	0.059
Osteopathy technique		10	38.7	22.5	
Control		10	22.8	18.2	

NR, not reported; PT, physiotherapy.

a *p*-value for between-group differences.

Study: Wies 2003⁷¹**Outcome – Range of movement – active abduction (°)**

<i>Intervention</i>	<i>Time point</i>	<i>No. randomised</i>	<i>Mean</i>	<i>SD</i>	
PT	Baseline	10	NR	NR	
Osteopathy technique		10	NR	NR	
Control		10	NR	NR	
<i>Intervention</i>	<i>Time point</i>	<i>No. analysed</i>	<i>Mean change from baseline</i>	<i>SD</i>	<i>p-value^a</i>
PT	9 weeks	10	39.6	35.8	NR
Osteopathy technique		10	46	23	
Control		10	0.8	39.5	

NR, not reported; PT, physiotherapy.

a *p*-value for between-group differences.

Study: Wies 2003⁷¹**Outcome: Quality of life**

Not reported

Study: Wies 2003⁷¹**Outcome: Adverse events**

Not reported

Study: Wies 2003⁷¹**Outcome: Other outcome**

Not reported