

Supplementary file 3: Participant clinical examination findings (n=1030)

Clinical examination of shoulder joints	Mean (SD)	Frequency (percent)
Range of shoulder movement (Degrees)*		
Active flexion	126 (34)	
Passive flexion	139 (30)	
Active abduction	114	
Passive abduction	126	
Passive external rotation	51	
Primary factor restricting each shoulder movement		
Active flexion		128 (12)
Normal		188 (16)
Stiffness		681 (66)
Pain		27 (3)
Weakness		6 (<1)
Apprehension		
Passive flexion		189 (18)
Normal		231 (22)
Stiffness		594 (58)
Pain		14 (1)
Apprehension		
Active abduction		99 (10)
Normal		160 (16)
Stiffness		736 (71)
Pain		29 (3)
Weakness		6 (<1)
Apprehension		
Passive abduction		174 (17)
Normal		193(19)
Stiffness		646(63)
Pain		14(1)
Apprehension		
Passive external rotation		305 (30)
Normal		257 (25)
Stiffness		457 (44)
Pain		7 (<1)
Apprehension		
Clinical examination, contractile		
Difference between active and passive flexion (degrees)	13 (18)	
Difference between active and passive abduction (degrees)	13 (3)	
Presence of an “external rotation lag”[29]		88 (9)
Force of shoulder movement (Newton)**		
Abduction	43 (28)	
External rotation	47 (30)	
Percentage force compared to unaffected side		
Abduction	71 (34)	
External rotation	79 (30)	

Clinical examination, other	Frequency	Percent
Arm pain on movements of the cervical spine		
None	917	90
Yes, but no reproduction of shoulder pain	97	9
Yes, some minor reproduction of shoulder pain***	15	1
Positive change in pain or range of movement during manual facilitation of scapula during active abduction		
Complete resolution of symptoms or restoration of movement	122	12
Some change, (>30%, but not complete resolution)	426	41
No change	482	47
Primary clinical problem stated by physiotherapist (frequency and percentage)		
Pain	763	74
Stiffness	209	20
Weakness	85	8
Instability	15	1

Legend: Data refers to affected shoulder only unless otherwise indicated.

*Range of shoulder movement measured using a goniometer.

**Force of shoulder movement measured using a hand held myometer (Mecmesin basic digital or analogue force gauge)

*** Patients with significant reproduction of shoulder pain on movements of the cervical spine were excluded as were patients with a greater reproduction of shoulder pain on movement of the cervical spine in comparison to the shoulder.