Shoulder scores

1

Questionnaires

Freepick.com

2

Simple Shoulder Test (SST)

|	Simple Shoulder Test	Yes	No
# 1	Is your shoulder comfortable with your arm at rest by your side?	1	
# 2	Does your shoulder allow you to sleep comfortably?	1	
# 3	Can you reach the small of your back to tuck in your shirt with your hand?		0
# 4	Can you place your hand behind your head with the elbow straight out to the side?		0
# 5	Can you place a coin on a shelf at the level of your shoulder without bending your elbow?	1	
# 6	Can you lift one pound (a full pint container) to the level of your shoulder without bending your elbow?	1	
# 7	Can you lift eight pounds (a full gallon container) to the level of the top of your head without bending your elbow?		0
# 8	Can you carry 20 pounds at your side with the affected extremity?	1	
# 9	Do you think you can toss a softball underhand 10 yards with the affected extremity?	1	
# 10	Do you think you can throw a softball overhand 20 yards with the affected extremity?	1	
# 11	Can you wash the back of your opposite shoulder with the affected extremity?		0
# 12	Would your shoulder allow you to work full-time at your usual job?		0

Score = 7

HSU 2017

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Shoulder power score
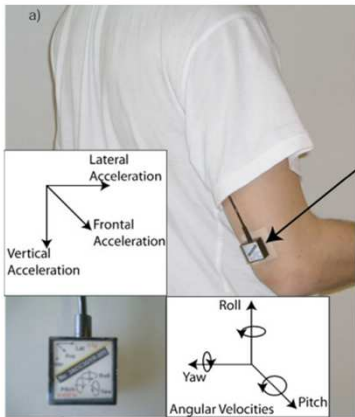
Summary of the nine tests carried out for painful and healthy shoulders

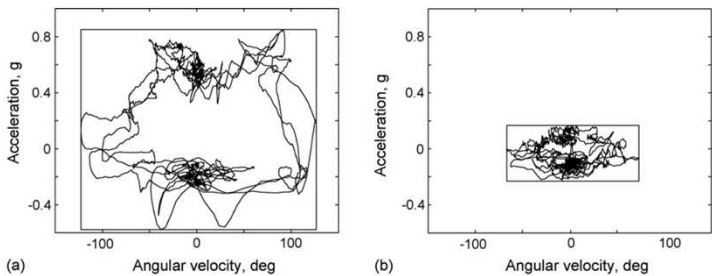| Tests	Description
1	Rest position
2	Hand to the back
3	Hand behind the head
4	Object ahead
5	4 kg in abduction
6	8 kg along the body
7	Hand to the opposite shoulder
8	Change a bulb
9	Object on side (Elbow in 90°, ext./int. rotation)

The subject is in standing position.

Coley 2007

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Shoulder power score

$$Pr = \sum_{roll,pitch,yaw} range(acceleration)$$
$$\cdot \, range(angular\ velocity)$$

(a)   (b)

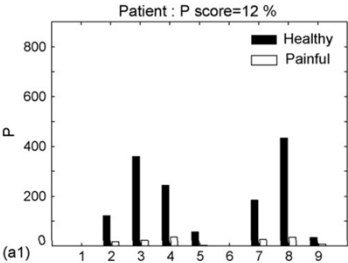Coley 2007

5

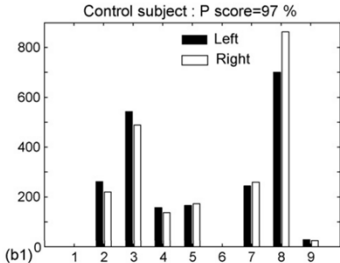## Shoulder power score

One patient   One control

$$\Delta Pr = \frac{P_{healthy} - P_{painful}}{P_{healthy}}$$

$$P\ score = 1 - mean\left[\sum_{Test=1}^{9} \Delta Pr\right] \times 100\,[\%]$$
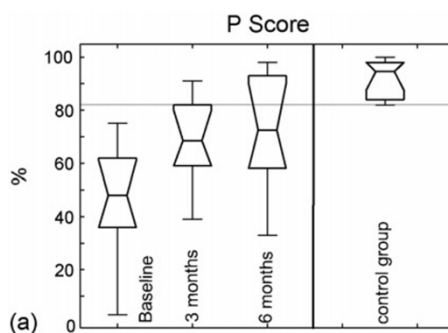
Coley 2007
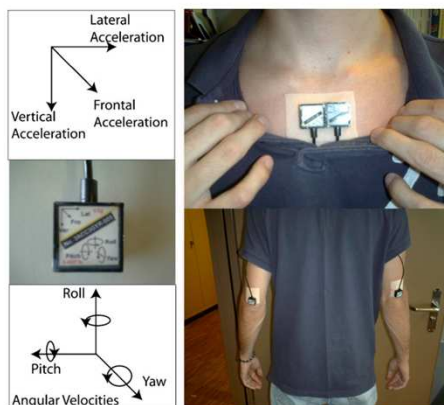
6

Shoulder power score

10 patients & 10 controls
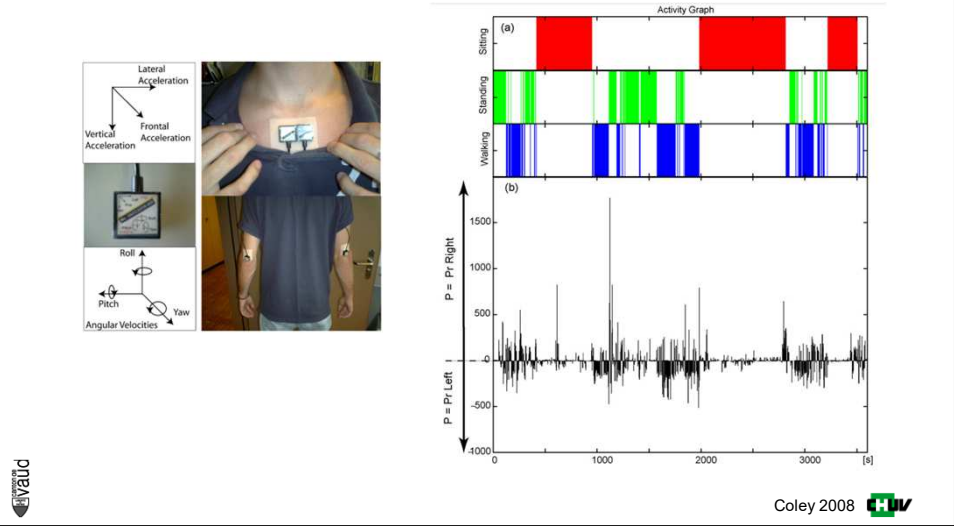

Coley 2007

7

Shoulder power score

10 patients & 10 controls

Coley 2008

8

Shoulder power score

Coley 2008

9

Shoulder power score

21 patient unilateral rotator cuff tear & surgical repair

41 control subjects

7 hours of daily activity

Table I Characteristics of participants

	Patient group	Control group	P value
Age, mean (SD), years	53.3 (9.0)	34.1 (8.8)	<.001
Sex (men/women)	14/7	23/18	.422
Weight, mean (SD), kg	77.0 (12.5)	68.1 (9.9)	.007
Body mass index, mean (SD), kg/m^2	26.7 (4.3)	22.9 (3.2)	.001
Size, mean (SD), m	1.70 (0.06)	1.72 (0.08)	.417
Hand dominance (right/left)	19/2	29/12	.078
Operated on dominant side (right/left-handed)	9/0	—	
Operated on nondominant side (right/left-handed)	10/2	—	

SD, standard deviation.

Pichonnaz 2015

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Shoulder power score

Table II Mean ± standard deviation for the percentage of usage of the dominant arm according to the body posture (sitting, standing, walking, and all postures together) for the control group

Posture	All participants N = 41	Right-handed N = 29	Left-handed N = 12	Right- vs. left-handed difference
Sitting	59.2 ± 7.3	61.2 ± 6.3	54.5 ± 7.6	$P = .014$
Standing	59.1 ± 7.5	61.1 ± 7.1	54.3 ± 6.4	$P = .009$
Walking	49.8 ± 11.6**	50.8 ± 12.8**	47.4 ± 7.9**	$P = .328$
Sit and stand	59.2 ± 7.3	61.2 ± 6.6	54.3 ± 6.7	$P = .009$

Significant difference with other postures: **$P < .001$.
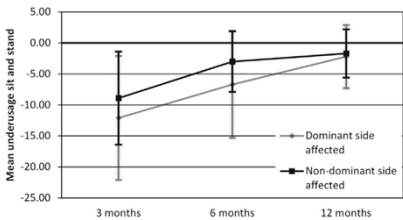
Pichonnaz 2015

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Shoulder power score

Underuse determined with respect to the control group

Table III Arm underuse in the sitting and standing postures expressed as a percentage in the dominant and nondominant affected patient subgroups with mean ± standard deviation (SD) and standard error of the mean at each stage

	Sample size	Dominant affected		Sample size	Nondominant affected	
	n	Mean ± SD	Standard error	n	Mean ± SD	Standard error
3 months	12	12.1 ± 10.0	±2.9	9	8.9 ± 7.5	±2.5
6 months	11	6.7 ± 8.6	±2.6	9	3.0 ± 4.9	±1.6
12 months	10	2.2 ± 5.1	±1.6	9	1.7 ± 3.9	±1.3

Pichonnaz 2015

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