

TABLE E-1 Descriptive Statistics for Glenohumeral Rotation\*

	Abduction	Scaption	Forward Flexion
Scapulohumeral rhythm ratio	$2.0 \pm 0.41^{\dagger}$	$1.6 \pm 0.49$	$1.1 \pm 0.31^{\dagger}$
Glenohumeral plane of elevation ( <i>deg</i> )	$-11.8 \pm 4.7$	$-11.6 \pm 4.9$	$42.4 \pm 12.2^{\ddagger}$
Arm plane of elevation ( <i>deg</i> )	$16.8 \pm 7.9$	$30.1 \pm 8.2$	$81.2 \pm 14.7^{\ddagger}$
Glenohumeral internal rotation ( <i>deg</i> )	$19.5 \pm 9.1$	$19.0 \pm 11.9^{\dagger}$	$37.2 \pm 15.0^{\dagger}$
Linear regression equation for glenohumeral elevation			
Slope	$0.66 \pm 0.05^{\dagger}$	$0.60 \pm 0.06$	$0.52 \pm 0.07^{\dagger}$
Intercept ( <i>deg</i> )	$4.1 \pm 7.0$	$7.3 \pm 9.5$	$20.5 \pm 9.1^{\ddagger}$

\*Values are given as the mean and the standard deviation for each plane of elevation. <sup>†</sup>The indicated values were different from each other ( $p < 0.05$ ). <sup>‡</sup>The indicated value was different from the other two.

TABLE E-2 Descriptive Statistics for Anterior-Posterior Glenohumeral Position\*

Glenohumeral Position	Abduction	Scaption	Forward Flexion
Mean ( <i>mm</i> )	$-4.5 \pm 1.6$	$-4.3 \pm 0.7$	$-4.4 \pm 1.2$
Maximum ( <i>mm</i> )	$-2.5 \pm 1.8$	$-3.2 \pm 0.6$	$-2.5 \pm 1.5$
Minimum ( <i>mm</i> )	$-7.7 \pm 1.2^{\dagger}$	$-5.6 \pm 1.0^{\dagger}$	$-6.2 \pm 1.5$
Excursion ( <i>mm</i> )	$5.1 \pm 1.1^{\dagger}$	$2.4 \pm 0.6^{\dagger}$	$3.6 \pm 1.1^{\dagger}$
Linear regression equation			
Slope ( <i>mm/90°</i> )	$0.3 \pm 2.7$	$-0.3 \pm 0.9$	$0.6 \pm 1.0$
Intercept ( <i>mm</i> )	$-5.0 \pm 3.1$	$-3.9 \pm 1.2$	$-5.0 \pm 2.2$

\*Values are given as the mean and the standard deviation for each plane of elevation. A negative value indicates posterior position or posterior translation. <sup>†</sup>The indicated values were different from each other ( $p < 0.05$ ).

TABLE E-3 Superior-Inferior Glenohumeral Position for Scaption\*

	Position					Regression Equation	
	Mean (mm)	Std. Dev. (mm)	Max. (mm)	Min. (mm)	Excursion (mm)	Slope (mm/90°)	Intercept (mm)
Subject							
1	1.6	1.2	2.7	-1.3	4.0	-1.9	3.5
2	-1.9	0.4	-1.1	-2.5	1.5	-0.6	-1.2
3	1.8	0.7	2.6	0.2	2.5	1.7	-0.4
4	0.0	0.4	0.3	-1.3	1.7	0.3	-0.3
5	0.7	0.3	1.3	0.1	1.2	0.0	0.8
6	2.7	1.3	4.2	0.6	3.6	-1.8	4.8
7	0.5	1.0	1.7	-1.8	3.5	0.9	-0.6
8	0.8	0.8	2.0	-0.2	2.2	-1.4	2.3
All subjects							
Mean	0.8	0.8	1.7	-0.8	2.5	-0.3	1.1
Std. dev.	1.4	0.4	1.6	1.1	1.1	1.3	2.2
Range	4.6	0.9	5.3	3.1	2.8	3.6	6.0
Maximum	2.7	1.3	4.2	0.6	4.0	1.7	4.8
Minimum	-1.9	0.3	-1.1	-2.5	1.2	-1.9	-1.2

\*A negative value indicates posterior position or posterior translation.

TABLE E-4 Descriptive Statistics for Superior-Inferior Glenohumeral Position\*

Glenohumeral Position	Abduction	Scaption	Forward Flexion
Mean (mm)	1.2 ± 1.4	0.8 ± 0.8	1.1 ± 0.9
Maximum (mm)	3.3 ± 2.4	1.7 ± 1.6	2.2 ± 1.4
Minimum (mm)	-1.0 ± 2.4	-0.8 ± 1.1	-0.8 ± 1.5
Excursion (mm)	4.2 ± 2.3	2.5 ± 1.1	3.0 ± 1.1
Linear regression equation			
Slope (mm/90°)	-2.1 ± 1.8 †	-0.3 ± 1.3	0.1 ± 0.9 †
Intercept (mm)	3.5 ± 2.9	1.1 ± 2.2	1.0 ± 1.4

\*Values are given as the mean and the standard deviation for each plane of elevation. A negative value indicates inferior position or inferior translation. †The indicated values were different from each other (p < 0.05).