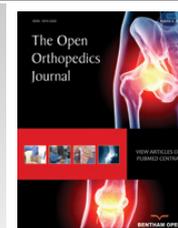




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Reliability and Validity of Electro-Goniometric Range of Motion Measurements in Patients with Hand and Wrist Limitations

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Supplementary Table 1. Mean of the measurements (raters/occasions) and analysis of variances summary for the ROM measurements in each electrogoniometer.

Measure	Tool Used	Rater/Occasion	Mean + SD	ANOVA Statistical Analysis
Wrist Flexion	NK	1/1	54.48 + 12.07	F 0.307 → Sig 0.736
		1/2	54.69 + 11.82	
		2/1	52.85 + 12.29	
Wrist Extension	NK	1/1	57.58 + 11.95	F 0.971 → Sig 0.381
		1/2	58.12 + 11.31	
		2/1	52.27 + 9.41	
Wrist Radial Dev.	NK	1/1	54.54 + 9.65	F 0.736 → Sig 0.481
		1/2	54.54 + 9.65	
		2/1	54.54 + 9.65	
Wrist Ulnar Dev.	NK	1/1	55.52 + 10.72	F 0.201 → Sig 0.818
		1/2	56.59 + 11.33	
		2/1	56.96 + 11.17	
Wrist Flexion	J-Tech	1/1	17.57 + 4.69	F 0.015 → Sig 0.985
		1/2	17.73 + 4.73	
		2/1	18.56 + 5.34	
Wrist Extension	J-Tech	1/1	18.76 + 4.90	F 0.168 → Sig 0.846
		1/2	18.28 + 5.22	
		2/1	19.56 + 5.34	
Wrist Radial Dev.	J-Tech	1/1	32.69 + 6.78	F 2.802 → Sig 0.064
		1/2	33.45 + 6.81	
		2/1	29.89 + 8.54	

(Uwrrigo gpxct('OevgkctTable 3) contd....

Measure	Tool Used	Rater/Occasion	Mean + SD	ANOVA Statistical Analysis	
	J-Tech	1/1	34.91 + 8.21	F 0.827	Sig 0.440
		2/1	32.99 + 8.11		
	J-Tech	1/1	80.08 + 6.09	F 0.023	Sig 0.977
		1/2	79.80 + 5.53		
		2/1	80.49 + 7.01		
		1/2	58.12 + 11.31	F 0.099	Sig 0.906
Wrist Supination	NK	1/1	77.62 + 9.16		
		1/2	77.33 + 9.52		
		2/1	75.36 + 10.40	F 1.479	Sig 0.232
	J-Tech	1/1	79.76 + 8.63		
		1/2	78.80 + 9.46		
		2/1	76.41 + 10.10	F 0.073	Sig 0.930
Active PIP Index	NK	1/1	100.49 + 7.16		
Flexion		1/2	100.76 + 6.37		
		2/1	100.70 + 5.85	F 0.324	Sig 0.724
	J-Tech	1/1	101.41 + 6.43		
Passive PIP Index	NK	1/1	106.28 + 6.42		
		1/2	106.89 + 5.56		
		2/1	106.89 + 5.56	F 0.121	Sig 0.886
Torque	NK	1/1	25.90 + 10.72		01.41 + 6.43
(Passive Index Flex)		1/2	27.32 + 12.01	F 44.171	Sig 0.000
		2/1	19.56 + 5.34		
		2/1	52.51 + 20.25*		TE 12.60

Note: ANOVA= One-Way Analysis of Variance; F= F ratio; Sig= Significance Level;

TE= Tukey Estimate of Significance

Supplementary Table 2. Factorial analysis for main effects (rater and instrument) and interaction effects (rater × instrument) for the ROM measures.

Measure	F ratio (Rater)	P	F ratio (Instrument)	P	F ratio (Rater × Instrument)	P
Wrist Flexion	2.137	0.129	2.968	0.086	0.156	0.693
Wrist Extension	1.258	0.263	5.091	0.025*	0.198	0.657
Wrist Radial Deviation	0.127	0.722	1.132	0.288	0.053	0.817
Wrist Ulnar Deviation	6.347	0.062	5.958	0.015 *	0.371	0.543
Wrist Pronation	0.150	0.699	8.799	0.033 *	0.020	0.888
Wrist Supination	4.021	0.056	1.315	0.053	0.092	0.762
Active Index Flexion	0.074	0.786	0.134	0.714	0.586	0.444

Note: P= Significance Level. The sign “*” stands to identify significant difference