

Supplementary material to article by C. Widehammar et al. "Effect of multi-grip myoelectric prosthetic hands on daily activities, pain-related disability and prosthesis use compared with single-grip myoelectric prostheses: A single-case study"

**Table S1.** Unadjusted coefficients, 95% confidence intervals (95% CI) and *p*-values using multilevel linear regression models for Canadian Occupational Performance Measure (COPM), Pain Disability Index (PDI), Assessment of Capacity for Myoelectric Control (ACMC) and modified Southampton Hand Assessment Procedure (SHAP) scores

Data collection time-point	COPM Performance	COPM Satisfaction	PDI	PDI ( <i>n</i> = 5)*	ACMC	Modified SHAP Light objects, sec	Modified SHAP Heavy objects, sec
	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)
Phase A Baseline	Reference	Reference	Reference	Reference	Reference	Reference	Reference
Phase B 2 days	No data collected	No data collected	No data collected	No data collected	-18.9 (-25.1 to -12.7) <i>p</i> < 0.001	26.3 (8.2 to 44.3) <i>p</i> = 0.004	28.3 (12.5 to 44.1) <i>p</i> < 0.001
2 weeks	No data collected	No data collected	No data collected	No data collected	-12.9 (-19.0 to -6.8) <i>p</i> < 0.001	7.7 (2.7 to 12.6) <i>p</i> = 0.002	8.7 (-1.5 to 18.8) <i>p</i> = 0.094
1 month	3.0 (2.1 to 3.8) <i>p</i> < 0.001	3.8 (2.7 to 4.9) <i>p</i> < 0.001	-2.0 (-9.9 to 5.9) <i>p</i> = 0.620	-4.6 (-18.2 to 9.0) <i>p</i> = 0.507	-4.6 (-9.0 to -0.1) <i>p</i> = 0.045	9.3 (2.8 to 15.8) <i>p</i> = 0.005	12.1 (-3.3 to 27.4) <i>p</i> = 0.123
2 months	3.5 (2.9 to 4.0) <i>p</i> < 0.001	4.5 (3.6 to 5.4) <i>p</i> < 0.001	-4.0 (-10.8 to 2.8) <i>p</i> = 0.249	-7.2 (-18.6 to 4.2) <i>p</i> = 0.216	-5.3 (-10.0 to -0.7) <i>p</i> = 0.025	5.0 (0.4 to 9.6) <i>p</i> = 0.035	1.0 (-8.7 to 10.8) <i>p</i> = 0.833
3 months	3.9 (3.3 to 4.6) <i>p</i> < 0.001	4.9 (4.1 to 5.6) <i>p</i> < 0.001	-9.0 (-16.2 to -1.7) <i>p</i> = 0.015	-14.4 (-23.1 to -5.7) <i>p</i> = 0.001	-1.8 (-6.5 to 2.8) <i>p</i> = 0.441	2.3 (-2.3 to 6.9) <i>p</i> = 0.333	3.4 (-6.3 to 13.1) <i>p</i> = 0.496
6 months	4.3 (3.7 to 4.9) <i>p</i> < 0.001	4.8 (3.9 to 5.7) <i>p</i> < 0.001	-7.7 (-14.0 to -1.3) <i>p</i> = 0.018	-13.8 (-21.9 to -5.7) <i>p</i> = 0.001	-2.5 (-7.5 to 2.5) <i>p</i> = 0.334	6.5 (-5.2 to 18.2) <i>p</i> = 0.275	-3.6 (-13.3 to 6.1) <i>p</i> = 0.466

\*Includes only the 5 participants who reported pain-related disability in the Pain Disability Index at the baseline measurements. 95% CI: 95% confidence interval. The coefficients indicate difference of the outcome value at a given time-point compared with baseline.

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**Table SII.** Adjusted coefficients, 95% confidence intervals and *p*-values using multilevel linear regression models for Canadian Occupational Performance Measure (COPM), Pain Disability Index (PDI), Assessment of Capacity for Myoelectric Control (ACMC) and modified Southampton Hand Assessment Procedure (SHAP) scores, excluding 2 individuals with bilateral upper and bilateral lower limb amputations

Data collection time-point	COPM Performance	COPM Satisfaction	PDI	PDI ( <i>n</i> = 5)*	ACMC	Modified SHAP	Modified SHAP
						Light objects, sec	Heavy objects, sec
	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)
Phase A Baseline	Reference	Reference	Reference	Reference	Reference	Reference	Reference
Phase B 2 days	No data collected	No data collected	No data collected	No data collected	-21.1 (-28.5 to -13.7) <i>p</i> < 0.001	25.5 (1.6 to 49.4) <i>p</i> = 0.037	26.8 (6.7 to 46.9) <i>p</i> = 0.009
2 weeks	No data collected	No data collected	No data collected	No data collected	-16.7 (-23.8 to -9.5) <i>p</i> < 0.001	8.8 (3.0 to 14.6) <i>p</i> = 0.003	3.0 (-8.0 to 14.1) <i>p</i> = 0.594
1 month	2.9 (2.2 to 3.5) <i>p</i> < 0.001	3.9 (3.1 to 4.6) <i>p</i> < 0.001	-1.4 (-11.4 to 8.6) <i>p</i> = 0.779	-3.8 (-20.8 to 13.3) <i>p</i> = 0.667	-4.5 (-10.1 to 1.2) <i>p</i> = 0.120	9.1 (3.0 to 15.1) <i>p</i> = 0.003	9.7 (-10.2 to 29.6) <i>p</i> = 0.340
2 months	3.2 (2.6 to 3.9) <i>p</i> < 0.001	4.2 (3.3 to 5.1) <i>p</i> < 0.001	-4.0 (-12.6 to 4.6) <i>p</i> = 0.362	-7.0 (-21.4 to 7.4) <i>p</i> = 0.342	-5.2 (-11.9 to 1.6) <i>p</i> = 0.132	6.7 (1.4 to 12.0) <i>p</i> = 0.012	-1.2 (-11.5 to 9.2) <i>p</i> = 0.824
3 months	3.5 (2.9 to 4.1) <i>p</i> < 0.001	4.4 (3.9 to 5.0) <i>p</i> < 0.001	-9.3 (-18.3 to -0.4) <i>p</i> = 0.041	-14.0 (-25.0 to -3.0) <i>p</i> = 0.013	-1.5 (-7.5 to 4.5) <i>p</i> = 0.622	3.8 (-1.4 to 9.1) <i>p</i> = 0.154	-4.9 (-15.2 to 5.5) <i>p</i> = 0.357
6 months	3.9 (3.3 to 4.6) <i>p</i> < 0.001	4.5 (3.7 to 5.3) <i>p</i> < 0.001	-7.6 (-15.1 to -0.1) <i>p</i> = 0.048	-13.3 (-23.5 to -3.0) <i>p</i> = 0.011	-2.6 (-8.4 to 3.1) <i>p</i> = 0.374	7.3 (-5.5 to 20.1) <i>p</i> = 0.264	-7.6 (-17.4 to 2.3) <i>p</i> = 0.131

\*Includes only the 5 participants who reported pain-related disability in the Pain Disability Index at the baseline measurements. 95% CI: 95% confidence interval. The estimates are adjusted for years of use and age (as continuous variables) and sex. The coefficients indicate difference of the outcome value at a given time-point compared with baseline.