

6. Supplementary material

Supplementary Table 1. Table with results of the isometric task. Reported are the mean (M) and standard deviations (SD) of the RMS muscle activity during the no exoskeleton (OFF), support level 1 (SL1) and support level 2 (SL2) conditions, the number of participants included in each analysis (n) and the p-value of the repeated measures ANOVA.

	RMS _{OFF} (%MVC)		RMS _{SL1} (%MVC)		RMS _{SL2} (%MVC)		Δ RMS _{SL2} (%OFF)	n	p-value
	M	SD	M	SD	M	SD			
90° shoulder and elbow flexion									
Biceps Brachii	4.8	4.3	2.0	1.8	1.9	1.4	61	29	<0.001
Triceps Brachii	3.6	2.4	2.7	1.9	2.8	2.2	23	29	<0.005
Deltoideus _{anterior}	27.9	9.0	17.6	9.1	15.3	9.5	45	29	<0.001
Deltoideus _{medius}	16.7	8.5	8.5	6.6	6.0	4.8	64	31	<0.001
Deltoideus _{posterior}	6.2	4.0	3.8	2.5	3.6	3.1	43	30	<0.001
Trapezius Descendens	8.4	7.4	5.0	5.0	4.2	4.7	50	27	<0.001
Erector Spinae _{lumbar}	12.9	7.4	12.7	8.6	12.8	7.1	1	24	0.978
Latissimus Dorsi	24.1	18.9	17.5	11.6	17.0	11.3	29	30	<0.001
Rectus Abdominis	3.5	3.0	3.4	2.9	3.2	2.4	8	30	0.587
120° shoulder flexion									
Biceps Brachii	4.9	3.9	2.7	2.2	2.4	1.8	51	29	<0.001
Triceps Brachii	4.2	3.2	3.0	2.2	3.4	2.8	20	28	<0.005
Deltoideus _{anterior}	30.2	10.7	18.7	10.2	16.7	9.1	45	29	<0.001
Deltoideus _{medius}	21.2	8.7	12.8	9.0	10.4	8.2	51	32	<0.001
Deltoideus _{posterior}	8.9	4.4	6.1	3.9	5.7	4.1	36	30	<0.001
Trapezius Descendens	16.0	9.4	8.6	6.5	7.1	6.1	56	30	<0.001
Erector Spinae _{lumbar}	12.0	7.2	12.0	6.7	12.0	6.6	0	21	0.999
Latissimus Dorsi	24.5	19.8	18.7	13.2	17.7	11.8	28	30	<0.001
Rectus Abdominis	3.4	2.7	3.2	2.6	3.2	2.3	6	30	0.522
90° shoulder and elbow flexion, abduction									
Biceps Brachii	8.0	8.8	5.2	5.4	4.5	4.2	44	24	<0.001
Triceps Brachii	4.9	4.7	3.4	2.7	3.0	2.3	40	30	<0.001
Deltoideus _{anterior}	31.6	16.7	20.7	12.9	18.5	11.9	42	30	<0.001
Deltoideus _{medius}	21.4	14.8	14.8	14.0	11.0	11.4	49	32	<0.001
Deltoideus _{posterior}	10.8	9.0	7.4	7.6	5.6	5.5	48	31	<0.001
Trapezius Descendens	16.3	7.0	9.4	5.5	7.9	5.0	51	27	<0.001
Erector Spinae _{lumbar}	11.3	7.2	11.0	7.1	10.9	5.8	4	22	0.942
Latissimus Dorsi	23.4	15.7	18.5	11.7	17.5	11.1	25	31	<0.001
Rectus Abdominis	3.5	2.8	3.3	2.6	3.3	2.4	6	30	0.674
120° shoulder, 90° elbow flexion, abduction									
Biceps Brachii	5.1	5.2	3.7	3.5	3.5	3.2	32	27	<0.001
Triceps Brachii	4.2	3.2	3.4	2.3	3.1	2.0	24	31	<0.05
Deltoideus _{anterior}	34.1	13.8	25.5	11.8	22.7	10.4	34	28	<0.001
Deltoideus _{medius}	21.6	7.9	17.3	10.3	14.2	9.0	34	28	<0.001
Deltoideus _{posterior}	10.8	6.7	8.3	6.0	7.4	6.0	32	30	<0.001
Trapezius Descendens	19.5	8.4	11.7	7.0	9.9	5.7	49	28	<0.001
Erector Spinae _{lumbar}	11.8	8.3	11.2	7.2	11.7	7.3	1	24	0.807
Latissimus Dorsi	25.4	18.9	21.5	14.9	20.7	14.6	19	30	<0.005
Rectus Abdominis	3.5	2.7	3.4	2.6	3.3	2.5	6	30	0.598