

Supplementary file 1

Table 2. Comparison between groups during the propulsive and landing phases of the single leg hop for distance.

	Involved	Uninvolved	Controls	Involved-Uninvolved		Involved-Controls		Uninvolved-Controls	
				p	d	p	d	p	d
Propulsion									
Peak hip flexion (°)	79.0±8.7	74.6±10.1	74.9±11.0	0.008	0.46	0.16		0.92	
Peak knee flexion (°)	63.4±7.2	66.6±5.5	64.31±5.7	0.02		0.70		0.14	
Peak ankle dorsiflexion (°)	36.0±3.6	35.4±3.7	36.14±4.5	0.43		0.69		0.36	
Hip flexion at take-off (°)	12.8±7.4	7.2±7.8	3.2±5.4	<0.001	0.74	<0.001	1.45	0.04	
Knee flexion at take-off (°)	15.6±5.5	11.9±4.8	7.3±4.8	<0.001	0.73	<0.001	1.58	0.002	0.93
Ankle dorsiflexion at take-off (°)	-21.0±5.6	-20.6±5.6	-21.8±5.9	0.64		0.60		0.46	
Hip flexion moments (Nm/Kg)	-3.3±0.4	-3.2±0.4	-3.3±0.5	0.06		0.99		0.30	
Knee flexion moments (Nm/Kg)	-1.3±0.4	-1.7±0.4	-1.5±0.5	<0.001	1.08	0.10		0.09	
Ankle dorsiflexion moments (Nm/Kg)	-3.3±0.4	-3.5±0.5	-3.2±0.3	0.002	0.45	0.39		0.014	0.70
Hip work contribution%	49.7±5.7	45.5±6.6	46.4±5.9	<0.001	0.68	0.06		0.60	
Knee work contribution%	9.7±3.9	13.5±4.0	12.1±4.4	<0.001	0.95	0.05		0.25	
Ankle work contribution%	40.6±4.3	41.0±4.9	41.5±4.1	0.65		0.49		0.73	
Landing									
Hip flexion at IC (°)	57.5±10.4	53.5±8.4	49.7±9.9	0.012	0.42	0.009	0.76	0.15	
Knee flexion at IC (°)	11.9±5.5	11.2±4.4	11.8±4.4	0.53		0.93		0.67	
Ankle dorsiflexion at IC (°)	-8.9±14.9	5.5±5.8	4.4±13.5	<0.001	-1.27	0.002	-0.92	0.72	
Trunk flexion at IC (°)	25.2±7.2	22.3±6.9	17.4±8.0	0.03		0.001	1.01	0.03	
Pelvis anterior tilt at IC (°)	24.6±8.1	21.6±7.7	18.8±7.8	0.02		0.013	0.73	0.21	
Peak hip flexion (°)	84.2±12.0	78.3±10.8	72.0±13.4	0.001	0.52	0.002	0.95	0.08	
Peak knee flexion (°)	65.9±9.8	72.2±7.4	69.3±9.6	0.002	-0.73	0.23		0.24	
Peak ankle dorsiflexion (°)	13.2±4.1	16.2±4.7	15.4±5.4	0.011	-0.68	0.118		0.58	
Peak trunk flexion (°)	47.2±9.4	37.0±9.6	32.6±11.5	<0.001	1.08	<0.001	1.38	0.15	
Peak pelvis anterior tilt (°)	32.9±9.9	25.3±9.6	22.5±9.5	<0.001	0.78	0.001	1.05	0.59	
Hip flexion moments (Nm/Kg)	-2.6±0.5	-2.4±0.6	-2.5±0.7	0.013	0.39	0.44		0.63	
Knee flexion moments (Nm/Kg)	-3.9±0.6	-4.4±0.6	-4.0±0.6	<0.001	0.81	0.85		0.011	0.75
Ankle dorsiflexion moments (Nm/Kg)	0.7±0.4	1.0±0.4	0.8±0.4	<0.001	0.87	0.16		0.13	
Hip work contribution%	26.3±6.2	19.5±6.9	20.7±6.6	<0.001	1.04	0.004	0.86	0.54	
Knee work contribution%	63.9±7.9	68.1±7.1	65.3±6.5	0.015	0.55	0.52		0.16	
Ankle work contribution%	9.8±5.3	12.4±3.7	14.0±4.3	0.09		0.004	0.86	0.17	

N, Newton; m, meter; Kg, kilograms; IC, initial contact

For the ACLR athletes, data is presented for both the reconstructed ('involved') and contralateral ('uninvolved') leg along with one (randomly selected) control limb from each control subject ('Controls') as mean±SD. The between group comparisons show p values and effect sizes (d) only where p<.017 (Bonferroni correction for multiple comparison) Note that for the moments effect sizes are presented as absolute values – readers should consider the moment direction (positive versus negative) to understand the direction of the differences.

Data for Figure 2

Work (J/Kg) - Propulsion

Hip joint work	2.2 ±0.4	2.1 ±0.5	2.2 ±0.4	0.34		0.77		0.82	
Knee joint work	0.4 ±0.2	0.6 ±0.2	0.6 ±0.2	<0.001	-1.08	0.02		0.25	
Ankle joint work	1.8 ±0.2	1.9 ±0.3	1.9 ±0.2	0.003	-0.52	0.05		0.96	
Total work	4.4 ±0.5	4.7 ±0.5	4.6 ±0.6	0.001	-0.53	0.15		0.84	

Work (J/Kg) - Landing

Hip joint work	-1.1 ±0.3	-0.9 ±0.3	-0.9 ±0.3	0.04		0.03		0.62	
Knee joint work	-2.6 ±0.6	-3.2 ±0.5	-2.8 ±0.6	<0.001	-1.11	0.25		0.013	0.73
Ankle joint work	-0.4 ±0.2	-0.6 ±0.2	-0.6 ±0.3	0.007	-0.97	0.002	-0.94	0.74	
Total work	-4.1 ±0.8	-4.7 ±0.5	-4.3 ±0.8	<0.001	-0.99	0.33		0.03	