

Table S1. Description of markers and location of attachment

	Maker Location	Marker Type			Maker Location	Marker Type
1	R.Acromium	Joint		25	R.Thigh.Front	Tracking
2	L.Acromium	Joint		26	R.Shank.Upper	Tracking
3	R.Elbow	Joint		27	R.Shank.Rear	Tracking
4	R.Wrist.Med	Joint		28	R.Shank.Front	Tracking
5	R.Wrist.Lat	Joint		29	R.Heel	Tracking
6	L.Elbow	Joint		30	R.Toe.Tip	Tracking
7	L.Wrist.Med	Joint		31	R.Midfoot.Lat	Tracking
8	L.Wrist.Lat	Joint		32	R.Midfoot.Sup	Tracking
9	R.ASIS	Joint		33	R.Toe.Lat	Tracking
10	L.ASIS	Joint		34	R.Toe.Med	Tracking
11	V.Sacral	Joint		35	L.Thigh.Upper	Tracking
12	R.Knee.Lat	Joint		36	L.Thigh.Rear	Tracking
13	R.Knee.Med	Joint		37	L.Thigh.Front	Tracking
14	R.Ankle.Lat	Joint		38	L.Shank.Upper	Tracking
15	R.Ankle.Med	Joint		39	L.Shank.Rear	Tracking
16	L.Knee.Lat	Joint		40	L.Shank.Front	Tracking
17	L.Knee.Med	Joint		41	L.Heel	Tracking
18	L.Ankle.Lat	Joint		42	L.Toe.Tip	Tracking
19	L.Ankle.Med	Joint		43	L.Midfoot.Lat	Tracking
20	Sternum	Tracking		44	L.Midfoot.Sup	Tracking
21	R.Bicep	Tracking		45	L.Toe.Lat	Tracking
22	L.Bicep	Tracking		46	L.Toe.Med	Tracking
23	R.Thigh.Upper	Tracking				
24	R.Thigh.Rear	Tracking				

Table S2. Results of Two way repeated measures ANOVA for kinematic and kinetic variables according to fatigue treatment.

Note: QF, quadriceps; HA, hamstring; COM, center of mass; ACL, anterior cruciate ligament; aACL, anterior bundle of ACL; pACL, posterior bundle of ACL; m/s =

Variables	Time	Fatigue Treatment			Interaction <i>p</i> -value	f	ICC	Cohen's <i>d</i>
		QF fatigue	HA fatigue	Control (Gait 20 mins)				
<i>COM velocity (m/s)</i>	Pre	4.53 ± 0.34	4.65 ± 0.29	4.56 ± 0.27	0.502	0.707	0.979	0.248
	Post	4.56 ± 0.30	4.66 ± 0.25	4.52 ± 0.27				
<i>Knee angle (°)</i>								
Flexion	Pre	-35.7 ± 5.69	-36.3 ± 5.31	-36.7 ± 3.79	0.004	6.683	0.900	0.938
	Post	-36.4 ± 5.49	-31.1 ± 6.47*†	-36.7 ± 6.14				
Valgus	Pre	-2.89 ± 3.17	-2.66 ± 3.96	-1.88 ± 3.89	0.505	0.701	0.958	0.731
	Post	-1.86 ± 4.70	-1.36 ± 3.70†	-1.52 ± 3.73				
External rotation	Pre	-1.92 ± 3.92	-1.15 ± 4.79	-2.52 ± 4.72	0.445	0.834	0.935	0.108
	Post	-2.13 ± 5.52	-2.68 ± 4.11	-3.88 ± 4.77				
<i>Knee joint force (N, N/kg)</i>								
Shear force	Pre	704 ± 137	736 ± 157	727 ± 149	0.422	0.891	0.907	0.576
	Post	650 ± 181	664 ± 172†	716 ± 136				
Normalized shear force	Pre	11.0 ± 2.13	11.5 ± 2.43	11.4 ± 2.29	0.436	0.856	0.906	0.574
	Post	10.2 ± 2.82	10.4 ± 2.71†	11.2 ± 2.09				
<i>Knee joint moment (Nm, Nm/(kg*HT))</i>								
Extension	Pre	154 ± 49	155 ± 41	162 ± 47	0.303	1.245	0.905	0.582
	Post	142 ± 42†	148 ± 44	152 ± 40				
Normalized extension	Pre	1.47 ± 0.47	1.49 ± 0.40	1.55 ± 0.45	0.280	1.332	0.902	0.566
	Post	1.37 ± 0.39†	1.42 ± 0.42	1.46 ± 0.38				
Adduction	Pre	29.8 ± 23.7	20.9 ± 17.1	21.3 ± 17.9	0.162	1.941	0.916	0.700
	Post	17.2 ± 18.9†	20.7 ± 20.4	13.3 ± 17.8†				
Normalized adduction	Pre	0.29 ± 0.23	0.20 ± 0.17	0.21 ± 0.17	0.170	1.891	0.918	0.690
	Post	0.17 ± 0.18†	0.20 ± 0.20	0.13 ± 0.17†				
Internal rotation	Pre	17.8 ± 10.1	22.1 ± 8.5	20.3 ± 12.0	0.694	0.370	0.899	0.244
	Post	17.9 ± 9.0	20.6 ± 11.8	20.9 ± 12.0				
Normalized internal rotation	Pre	0.17 ± 0.10	0.21 ± 0.08	0.20 ± 0.11	0.974	0.027	0.880	0.241
	Post	0.17 ± 0.09	0.22 ± 0.09	0.20 ± 0.11				

<i>ACL force (N, N/kg)</i>								
Maximum aACL force	Pre	1495 ± 197	1477 ± 119	1510 ± 103	0.825	0.194	0.879	0.080
	Post	1494 ± 173	1504 ± 113	1514 ± 147				
Normalized maximum aACL force	Pre	24.3 ± 4.9	23.9 ± 3.6	24.5 ± 3.8	0.807	0.216	0.980	0.100
	Post	24.3 ± 4.5	24.4 ± 3.8	24.7 ± 4.7				
Maximum pACL force	Pre	941 ± 144	954 ± 179	936 ± 130	0.849	0.165	0.816	0.027
	Post	976 ± 103	963 ± 141	957 ± 107				
Normalized maximum pACL force	Pre	15.2 ± 2.7	15.4 ± 3.2	15.2 ± 2.5	0.808	0.214	0.827	0.046
	Post	15.8 ± 2.4	15.5 ± 2.2	15.4 ± 1.9				
Mean aACL force	Pre	1198 ± 121	1155 ± 160	1154 ± 166	0.045	3.768	0.858	0.878
	Post	1111 ± 153†	1200 ± 121	1183 ± 108				
Normalized mean aACL force	Pre	19.6 ± 3.0	19.0 ± 3.7	19.0 ± 4.1	0.053	3.102	0.931	0.933
	Post	18.3 ± 3.7†	19.7 ± 3.3	19.5 ± 3.4				
Mean pACL force	Pre	543 ± 133	538 ± 118	573 ± 130	0.052	3.309	0.888	0.4
	Post	592 ± 96	577 ± 118	549 ± 116				
Normalized mean pACL force	Pre	8.65 ± 1.93	9.17 ± 1.92	8.77 ± 2.33	0.048	3.41	0.885	0.174
	Post	9.25 ± 1.70	8.81 ± 1.83	9.57 ± 1.83				

meter per second; °, degree; N, newton; N/Kg, newton per kilogram; Nm, newton meter; HT, height; *, difference with post-QF fatigue treatment; †, difference with pre-treatment. Bold letter represent significant values. Effect sizes were calculated for the measured variables and interpreted according to Cohen: trivial (0–0.2), small (0.2–0.5), moderate (0.5–0.8), large (>0.8)