Supplemental digital content 2, Table. Surface electromyographic responses to transcranial magnetic stimulation and electrical stimulation of the femoral nerve at rest and during contraction (n = 10) pre- and at 24, 48 and 72 h post strength, jump and sprint training. Evoked responses were recorded from *rectus femoris*. Unconditioned motor evoked potentials are reported for weak contraction (10% iMVC) at 90-160% active motor threshold, and for strong contractions (100, 75 & 50% MVC during measurement of voluntary activation with TMS). The average pre-stimulation (50 ms) root mean square EMG amplitude and force for each MEP configuration was equivalent within trial. Values are mean ± SD.

	Pre-			24 h			48 h			72 h		
STRENGTH												
Evoked amplitudes (mV)												
M_{max}	5.22	±	1.54	6.11	±	2.04	5.99	±	2.15	6.73	±	2.02
90% AMT unconditioned MEP	0.24	±	0.14	0.23	±	0.11	0.27	±	0.13	0.21	±	0.09
100% AMT unconditioned MEP	0.31	±	0.12	0.31	±	0.17	0.27	±	0.11	0.33	±	0.15
110% AMT unconditioned MEP	0.57	±	0.45	0.51	±	0.21	0.42	±	0.15	0.39	±	0.15
120% AMT unconditioned MEP	0.73	±	0.31	0.88	±	0.42	0.85	±	0.40	0.83	±	0.35
130% AMT unconditioned MEP	1.13	±	0.56	1.43	±	0.85	1.07	±	0.43	1.01	±	0.33
140% AMT unconditioned MEP	1.44	±	0.63	1.96	±	1.30	1.77	±	0.88	1.61	±	0.73
150% AMT unconditioned MEP	1.94	±	0.87	2.11	±	0.91	1.86	±	0.64	1.91	±	0.68
160% AMT unconditioned MEP	1.86	±	0.64	2.18	±	0.79	2.11	±	0.89	1.87	±	0.64
Conditioned (SICI) MEP	0.51	±	0.26	0.69	±	0.47	0.57	±	0.27	0.60	±	0.24
EMG$_{RMS}$ (mV)												
90% AMT unconditioned MEP	0.040	±	0.013	0.039	±	0.010	0.040	±	0.005	0.039	±	0.007
100% AMT unconditioned MEP	0.038	±	0.008	0.038	±	0.007	0.039	±	0.006	0.041	±	0.007
110% AMT unconditioned MEP	0.040	±	0.010	0.040	±	0.010	0.037	±	0.004	0.040	±	0.008
120% AMT unconditioned MEP	0.038	±	0.010	0.041	±	0.009	0.039	±	0.006	0.040	±	0.007
130% AMT unconditioned MEP	0.039	±	0.008	0.043	±	0.011	0.041	±	0.007	0.043	±	0.011
140% AMT unconditioned MEP	0.037	±	0.006	0.041	±	0.009	0.040	±	0.005	0.045	±	0.013
150% AMT unconditioned MEP	0.038	±	0.008	0.037	±	0.006	0.043	±	0.011	0.043	±	0.011
160% AMT unconditioned MEP	0.040	±	0.011	0.042	±	0.008	0.037	±	0.007	0.044	±	0.014
Conditioned (SICI) MEP	0.037	±	0.007	0.040	±	0.008	0.038	±	0.006	0.040	±	0.006
Force (N)												
90% AMT unconditioned MEP	70.1	±	9.7	64.6	±	10.3	66.4	±	9.0	70.3	±	11.5
100% AMT unconditioned MEP	70.5	±	10.3	64.2	±	8.9	66.4	±	9.5	70.4	±	12.4
110% AMT unconditioned MEP	70.9	±	10.1	64.4	±	9.6	66.1	±	8.8	70.5	±	11.3
120% AMT unconditioned MEP	70.8	±	10.3	64.3	±	10.0	66.1	±	9.6	70.3	±	11.9
130% AMT unconditioned MEP	71.8	±	9.6	64.4	±	9.6	67.0	±	8.8	70.2	±	11.8
140% AMT unconditioned MEP	69.9	±	9.5	65.1	±	10.0	66.4	±	9.3	70.6	±	10.8
150% AMT unconditioned MEP	70.4	±	11.0	63.8	±	10.2	66.7	±	9.7	70.9	±	10.8
160% AMT unconditioned MEP	69.6	±	11.2	65.3	±	10.5	67.1	±	9.8	71.0	±	12.9
Conditioned (SICI) MEP	70.4	±	10.2	64.4	±	10.0	67.3	±	9.6	70.2	±	11.7
Evoked MEPs (mV)												
100% iMVC	2.74	±	0.57	3.16	±	0.78	3.14	±	1.05	3.49	±	1.20
75% iMVC	3.10	±	1.02	3.62	±	1.40	3.59	±	1.25	3.76	±	1.35
50% iMVC	3.00	±	1.05	3.54	±	1.35	3.37	±	1.43	3.84	±	1.40

	Pre-			24 h			48 h			72 h		
JUMP												
Evoked amplitudes (mV)												
M_{max}	6.02	±	2.56	5.74	±	2.17	5.41	±	2.36	5.44	±	2.55
90% AMT unconditioned MEP	0.28	±	0.23	0.28	±	0.17	0.30	±	0.24	0.29	±	0.19
100% AMT unconditioned MEP	0.40	±	0.31	0.36	±	0.21	0.41	±	0.30	0.44	±	0.35
110% AMT unconditioned MEP	0.76	±	0.79	0.58	±	0.38	0.56	±	0.35	0.80	±	0.61
120% AMT unconditioned MEP	0.88	±	0.46	0.86	±	0.41	0.82	±	0.41	0.98	±	0.55
130% AMT unconditioned MEP	1.62	±	1.10	1.38	±	0.97	1.54	±	0.79	1.50	±	1.07
140% AMT unconditioned MEP	1.67	±	0.93	1.53	±	0.90	1.91	±	1.02	1.75	±	0.90
150% AMT unconditioned MEP	1.99	±	0.78	1.66	±	0.88	2.04	±	0.95	1.76	±	0.63
160% AMT unconditioned MEP	2.04	±	1.01	1.96	±	0.99	2.09	±	1.02	2.01	±	0.84
Conditioned (SICI) MEP	0.57	±	0.32	0.65	±	0.33	0.52	±	0.23	0.60	±	0.34
EMG$_{RMS}$ (mV)												
90% AMT unconditioned MEP	0.042	±	0.014	0.042	±	0.008	0.040	±	0.010	0.042	±	0.011
100% AMT unconditioned MEP	0.045	±	0.016	0.043	±	0.010	0.041	±	0.011	0.039	±	0.004
110% AMT unconditioned MEP	0.045	±	0.020	0.042	±	0.009	0.040	±	0.009	0.043	±	0.020
120% AMT unconditioned MEP	0.041	±	0.012	0.039	±	0.005	0.042	±	0.008	0.039	±	0.006
130% AMT unconditioned MEP	0.044	±	0.016	0.040	±	0.006	0.043	±	0.013	0.042	±	0.012
140% AMT unconditioned MEP	0.043	±	0.016	0.037	±	0.004	0.044	±	0.013	0.041	±	0.011
150% AMT unconditioned MEP	0.045	±	0.016	0.042	±	0.011	0.042	±	0.012	0.041	±	0.010
160% AMT unconditioned MEP	0.045	±	0.017	0.042	±	0.008	0.042	±	0.008	0.043	±	0.014
Conditioned (SICI) MEP	0.041	±	0.011	0.041	±	0.008	0.040	±	0.005	0.039	±	0.008
Force (N)												
90% AMT unconditioned MEP	73.4	±	9.4	67.8	±	8.3	69.7	±	8.8	74.2	±	9.2
100% AMT unconditioned MEP	74.2	±	9.2	66.9	±	8.3	69.3	±	9.1	69.7	±	9.7
110% AMT unconditioned MEP	73.6	±	9.2	66.4	±	7.4	68.9	±	9.1	70.0	±	8.6
120% AMT unconditioned MEP	74.4	±	10.4	67.3	±	7.7	68.9	±	8.8	69.1	±	9.7
130% AMT unconditioned MEP	73.9	±	9.7	66.3	±	8.4	68.4	±	8.4	70.0	±	8.8
140% AMT unconditioned MEP	74.3	±	10.6	67.0	±	8.0	70.2	±	8.6	70.2	±	9.1
150% AMT unconditioned MEP	74.2	±	10.2	67.5	±	8.5	68.2	±	8.9	70.1	±	11.0
160% AMT unconditioned MEP	72.9	±	9.4	65.9	±	7.4	69.7	±	10.8	70.5	±	9.8
Conditioned (SICI) MEP	74.0	±	10.0	66.8	±	7.8	69.6	±	9.2	69.3	±	9.8
Evoked MEPs (mV)												
100% iMVC	3.16	±	1.53	3.24	±	1.04	2.75	±	0.66	3.21	±	1.20
75% iMVC	3.31	±	1.44	3.26	±	1.25	3.23	±	1.06	3.25	±	1.10
50% iMVC	3.30	±	1.49	3.29	±	1.32	3.22	±	1.34	3.22	±	1.27

	Pre-			**24 h**			**48 h**			**72 h**		
SPRINT												
Evoked amplitudes (mV)												
M_{max}	6.24	±	2.11	5.97	±	1.72	6.11	±	1.60	5.58	±	1.69
90% AMT unconditioned MEP	0.26	±	0.13	0.22	±	0.07	0.23	±	0.06	0.23	±	0.10
100% AMT unconditioned MEP	0.30	±	0.12	0.30	±	0.12	0.36	±	0.23	0.34	±	0.14
110% AMT unconditioned MEP	0.49	±	0.30	0.51	±	0.39	0.48	±	0.40	0.67	±	0.35
120% AMT unconditioned MEP	0.87	±	0.42	0.86	±	0.49	0.71	±	0.37	1.09	±	0.70
130% AMT unconditioned MEP	1.27	±	0.72	1.06	±	0.64	1.48	±	1.15	1.55	±	1.12
140% AMT unconditioned MEP	1.66	±	0.97	1.46	±	0.73	1.55	±	1.06	1.95	±	1.17
150% AMT unconditioned MEP	1.84	±	0.89	1.79	±	0.73	1.82	±	1.09	2.17	±	1.11
160% AMT unconditioned MEP	1.86	±	0.85	2.37	±	1.29	2.16	±	1.46	2.22	±	1.35
Conditioned (SICI) MEP	0.59	±	0.29	0.46	±	0.18	0.51	±	0.25	0.67	±	0.37
EMG_{RMS} (mV)												
90% AMT unconditioned MEP	0.040	±	0.013	0.035	±	0.004	0.036	±	0.005	0.038	±	0.007
100% AMT unconditioned MEP	0.038	±	0.008	0.035	±	0.005	0.036	±	0.005	0.038	±	0.007
110% AMT unconditioned MEP	0.038	±	0.011	0.035	±	0.005	0.037	±	0.006	0.038	±	0.005
120% AMT unconditioned MEP	0.040	±	0.010	0.035	±	0.005	0.036	±	0.005	0.038	±	0.006
130% AMT unconditioned MEP	0.040	±	0.011	0.034	±	0.004	0.034	±	0.012	0.038	±	0.008
140% AMT unconditioned MEP	0.037	±	0.007	0.034	±	0.004	0.037	±	0.006	0.037	±	0.006
150% AMT unconditioned MEP	0.039	±	0.008	0.035	±	0.005	0.036	±	0.006	0.039	±	0.009
160% AMT unconditioned MEP	0.039	±	0.011	0.036	±	0.007	0.037	±	0.006	0.039	±	0.010
Conditioned (SICI) MEP	0.039	±	0.010	0.035	±	0.005	0.036	±	0.005	0.037	±	0.006
Force (N)												
90% AMT unconditioned MEP	73.3	±	8.7	64.8	±	7.4	66.5	±	6.4	68.8	±	5.2
100% AMT unconditioned MEP	73.6	±	10.1	64.7	±	7.6	68.3	±	6.8	69.3	±	6.1
110% AMT unconditioned MEP	73.5	±	8.9	64.2	±	6.4	67.6	±	8.9	70.0	±	5.9
120% AMT unconditioned MEP	73.5	±	8.9	64.2	±	7.0	67.0	±	7.3	70.2	±	6.3
130% AMT unconditioned MEP	73.6	±	10.0	64.0	±	6.6	67.1	±	8.1	68.6	±	6.1
140% AMT unconditioned MEP	73.1	±	8.5	64.1	±	6.7	67.3	±	8.0	69.3	±	5.2
150% AMT unconditioned MEP	73.7	±	9.4	64.7	±	6.7	66.8	±	8.1	70.5	±	4.6
160% AMT unconditioned MEP	73.8	±	9.8	65.0	±	8.0	67.6	±	7.4	69.9	±	7.3
Conditioned (SICI) MEP	72.7	±	9.5	63.8	±	6.2	67.2	±	7.6	70.0	±	5.9
Evoked MEPs (mV)												
100% iMVC	3.18	±	1.35	2.90	±	1.10	2.98	±	0.79	2.83	±	0.81
75% iMVC	3.18	±	1.52	3.24	±	1.29	3.32	±	1.04	3.25	±	1.04
50% iMVC	3.39	±	1.56	3.16	±	1.36	3.31	±	1.18	3.39	±	1.07

M_{max}, maximum muscle compound action potential; iMVC, isometric maximum voluntary contraction; AMT, active motor threshold; MEP, motor evoked potential; SICI, short interval intracortical inhibition; EMG_{RMS}, root mean square electromyography amplitude