

Table S1. Side-to-side asymmetry of PGRF among pre-CMJ.

Subjects	DJH30 CV (%)	DJH30 Mean	DJH30 SD	DJH40 CV (%)	DJH40 Mean	DJH40 SD	DJH50 CV (%)	DJH50 Mean	DJH50 SD
1	14	0.42	0.059	10	0.36	0.075	10	0.75	0.003
2	11	0.75	0.082	12	0.61	0.048	11	0.44	0.003
3	12	0.25	0.030	13	0.32	0.023	11	0.21	0.001
4	14	0.19	0.027	11	0.68	0.046	11	0.41	0.003
5	11	0.06	0.007	13	0.10	0.013	11	0.12	0.000
6	12	0.10	0.012	14	0.27	0.076	13	0.58	0.002
7	14	0.24	0.033	13	0.45	0.038	11	0.35	0.002
8	10	0.39	0.039	12	0.36	0.092	14	0.66	0.002
9	11	0.32	0.035	15	0.29	0.074	12	0.62	0.002
10	13	0.69	0.090	12	0.21	0.059	11	0.54	0.001
11	13	0.29	0.037	14	0.40	0.084	13	0.65	0.003
12	13	0.51	0.066	10	0.63	0.029	11	0.26	0.002
13	11	0.13	0.014	11	0.20	0.039	12	0.33	0.001
14	13	0.93	0.121	13	0.47	0.130	14	0.93	0.004
15	12	0.24	0.029	14	0.45	0.014	10	0.14	0.001
16	12	0.10	0.012	10	0.52	0.004	11	0.04	0.000
17	12	0.06	0.008	11	0.15	0.054	13	0.41	0.001
18	12	0.22	0.027	11	0.44	0.041	13	0.32	0.001

NOTE: CMJ = countermovement jump; PGRF = peak ground reaction force. DJH30 = drop jump from 30cm drop height; DJH40 = Drop jump from 40cm drop height; DJH50 = drop jump from 50cm drop height. CV is coefficient of variation. The data represent the mean value. SD standard deviation

Table S2. Side-to-side asymmetry of PGRF among CMJs50.

Subjects	DJH30 CV (%)	DJH30 Mean	DJH30 SD	DJH40 CV (%)	DJH40 Mean	DJH40 SD	DJH50 CV (%)	DJH50 Mean	DJH50 SD
1	10	1.32	0.132	13	0.16	0.021	12	0.63	0.075
2	12	0.16	0.020	14	0.44	0.061	14	0.17	0.023
3	13	0.12	0.016	10	0.37	0.037	11	0.50	0.055
4	11	0.06	0.007	11	0.66	0.073	12	0.15	0.018
5	13	0.05	0.006	11	0.30	0.033	14	0.27	0.037
6	14	0.03	0.004	14	0.05	0.007	10	0.11	0.011
7	13	0.20	0.026	11	0.20	0.022	11	0.44	0.049
8	12	0.16	0.019	12	0.03	0.003	13	0.46	0.060
9	15	0.16	0.023	14	0.01	0.001	13	0.53	0.069
10	12	0.11	0.013	11	0.17	0.019	13	0.60	0.078
11	14	0.02	0.003	12	0.53	0.063	11	0.21	0.023
12	10	0.08	0.008	14	0.42	0.059	13	0.11	0.014
13	11	0.13	0.014	10	0.30	0.030	12	0.07	0.009
14	13	0.31	0.040	11	0.79	0.086	12	0.73	0.087

<b>15</b>	14	0.09	0.013	13	0.51	0.066	12	0.22	0.026
<b>16</b>	10	0.23	0.023	13	0.16	0.021	12	0.44	0.053
<b>17</b>	11	0.15	0.016	13	0.18	0.024	14	0.00	0.000
<b>18</b>	11	0.01	0.001	11	0.15	0.017	10	0.19	0.019

NOTE: CMJ = countermovement jump; PGRF = peak ground reaction force. DJH30 = drop jump from 30cm drop height; DJH40 = Drop jump from 40cm drop height; DJH50 = drop jump from 50cm drop height. CV is coefficient of variation. The data represent the mean value. SD standard deviation

Table S3. Side-to-side asymmetry of PGRF among CMJs100.

Subjects	DJH30	DJH30	DJH30	DJH40	DJH40	DJH40	DJH50	DJH50	DJH50
	CV (%)	Mean	SD	CV (%)	Mean	SD	CV (%)	Mean	SD
<b>1</b>	11	0.51	0.056	10	0.55	0.055	12	0.37	0.045
<b>2</b>	11	0.01	0.001	12	0.11	0.013	14	0.24	0.034
<b>3</b>	13	0.23	0.029	13	0.26	0.034	10	0.13	0.013
<b>4</b>	11	0.18	0.020	11	0.18	0.020	11	0.14	0.015
<b>5</b>	14	0.09	0.012	13	0.05	0.006	13	0.32	0.041
<b>6</b>	12	0.20	0.024	14	0.08	0.011	10	0.05	0.005
<b>7</b>	11	0.11	0.012	13	0.09	0.011	11	0.23	0.026
<b>8</b>	13	0.01	0.001	12	0.46	0.056	12	0.05	0.006
<b>9</b>	11	0.11	0.012	15	0.21	0.032	12	0.06	0.008
<b>10</b>	12	0.82	0.098	12	0.40	0.048	12	0.47	0.057
<b>11</b>	14	0.79	0.110	14	0.45	0.064	13	0.30	0.039
<b>12</b>	10	0.00	0.000	10	0.29	0.029	11	0.67	0.074
<b>13</b>	11	0.58	0.064	11	1.43	0.158	12	1.29	0.155
<b>14</b>	13	0.41	0.054	13	0.09	0.011	14	0.40	0.056
<b>15</b>	12	0.05	0.005	14	0.37	0.051	10	0.03	0.003
<b>16</b>	12	0.11	0.013	10	0.15	0.015	11	0.72	0.079
<b>17</b>	12	0.61	0.073	11	0.16	0.018	13	0.15	0.020
<b>18</b>	12	0.05	0.006	11	0.05	0.005	12	0.01	0.001

NOTE: CMJ = countermovement jump; PGRF = peak ground reaction force. DJH30 = drop jump from 30cm drop height; DJH40 = Drop jump from 40cm drop height; DJH50 = drop jump from 50cm drop height. CV is coefficient of variation. The data represent the mean value. SD standard deviation

Table S4. Side-to-side asymmetry of PGRF among CMJs150.

Subjects	DJH30	DJH30	DJH30	DJH40	DJH40	DJH40	DJH50	DJH50	DJH50
	CV (%)	Mean	SD	CV (%)	Mean	SD	CV (%)	Mean	SD
<b>1</b>	12	0.34	0.041	12	0.38	0.046	11	0.54	0.060
<b>2</b>	12	0.41	0.049	15	0.89	0.133	12	1.01	0.121
<b>3</b>	12	0.22	0.026	12	0.33	0.040	14	0.42	0.059
<b>4</b>	13	0.15	0.019	14	0.21	0.030	10	0.34	0.034
<b>5</b>	11	0.10	0.010	13	0.07	0.010	11	0.29	0.032

6	12	0.05	0.006	14	0.12	0.017	10	0.27	0.027
7	11	0.33	0.036	13	0.16	0.020	11	0.09	0.010
8	13	0.10	0.013	12	0.13	0.015	12	1.00	0.120
9	11	0.04	0.005	15	0.04	0.006	12	0.21	0.026
10	12	0.10	0.012	12	0.24	0.029	12	0.39	0.046
11	14	0.56	0.078	14	0.22	0.031	13	0.27	0.036
12	10	0.23	0.023	10	0.06	0.006	11	0.49	0.054
13	11	0.43	0.047	11	0.52	0.057	12	0.41	0.050
14	13	0.55	0.071	13	0.45	0.059	14	0.49	0.069
15	12	0.39	0.047	14	0.22	0.030	10	0.42	0.042
16	12	0.18	0.021	10	0.13	0.013	11	0.32	0.035
17	12	0.13	0.015	11	0.80	0.088	13	1.29	0.167
18	12	0.42	0.051	11	1.36	0.150	12	1.55	0.186

NOTE: CMJ = countermovement jump; PGRF = peak ground reaction force. DJH30 = drop jump from 30cm drop height; DJH40 = Drop jump from 40cm drop height; DJH50 = drop jump from 50cm drop height. CV is coefficient of variation. The data represent the mean value. SD standard deviation

Table S5. Side-to-side asymmetry of PGRF among CMJs200.

Subjects	DJH30	DJH30	DJH30	DJH40	DJH40	DJH40	DJH50	DJH50	DJH50
	CV (%)	Mean	SD	CV (%)	Mean	SD	CV (%)	Mean	SD
1	10	0.18	0.018	13	0.47	0.061	12	0.27	0.032
2	13	0.37	0.048	11	0.26	0.028	12	0.02	0.003
3	14	0.10	0.014	13	0.06	0.008	12	0.00	0.000
4	10	0.16	0.016	13	0.02	0.002	12	0.31	0.038
5	11	0.28	0.031	13	0.21	0.027	14	0.48	0.067
6	11	0.29	0.032	11	0.07	0.007	10	0.03	0.003
7	13	0.05	0.006	11	0.32	0.036	11	0.58	0.064
8	12	0.57	0.068	12	0.48	0.058	13	0.86	0.111
9	15	0.57	0.086	14	0.80	0.112	13	0.75	0.098
10	12	0.19	0.023	11	0.12	0.014	13	0.59	0.077
11	14	0.18	0.025	12	0.34	0.040	11	0.56	0.062
12	10	0.17	0.017	14	0.39	0.054	13	0.41	0.053
13	11	0.13	0.015	10	0.33	0.033	12	0.95	0.115
14	13	0.03	0.004	11	0.14	0.015	12	1.02	0.122
15	14	0.24	0.034	13	0.19	0.024	12	0.54	0.064
16	10	0.13	0.013	13	0.16	0.021	12	0.68	0.081
17	15	0.07	0.011	14	0.59	0.082	13	0.80	0.104
18	12	0.16	0.019	11	0.76	0.084	13	0.84	0.109

NOTE: CMJ = countermovement jump; PGRF = peak ground reaction force. DJH30 = drop jump from 30cm drop height; DJH40 = Drop jump from 40cm drop height; DJH50 = drop jump from 50cm drop height. CV is coefficient of variation. The data represent the mean value. SD standard deviation

Table S6. The PGRF among countermovement jumps of left foot.

Variables	CMJ	DJH30	DJH40	DJH50	<i>p</i>	<i>ES</i> (40/30)	<i>ES</i> (50/30)	<i>ES</i> (50/40)
<b>PGRF (BW)</b>	Pre-CMJ	1.71±0.44	1.81±0.50	2.01±0.55	0.100	/	/	/
	CMJs50	1.68±0.36	1.76±0.34	1.95±0.45	0.120	/	/	/
	CMJs100 <sup>‡§</sup>	1.66±0.40	1.72±0.33	1.89±0.36	0.003*	0.30	0.69	0.62
	CMJs150 <sup>‡§</sup>	1.67±0.31	1.71±0.38	1.89±0.36	0.009*	0.17	0.87	0.62
	CMJs200 <sup>‡§</sup>	1.69±0.42	1.80±0.38	1.97±0.42	0.003*	0.43	0.83	0.66

**NOTE:** CMJ = countermovement jump; PGRF = peak ground reaction force. DJH30 = drop jump from 30cm drop height; DJH40 = Drop jump from 40cm drop height; DJH50 = drop jump from 50cm drop height. “\*”Indicates a significant difference between three drop heights; “‡”indicates a significant difference from DJH30 and DJH50; “§” indicates a significant difference from DJH40 and DJH50 ( $p < 0.05$ ).

Table S7. The PGRF among countermovement jumps of right foot.

Variables	CMJ	DJH30	DJH40	DJH50	<i>p</i>	<i>ES</i> (40/30)	<i>ES</i> (50/30)	<i>ES</i> (50/40)
<b>PGRF (BW)</b>	Pre-CMJ	1.79±0.40	1.84±0.32	2.09±0.36	0.200	/	/	/
	CMJs50	1.76±0.36	1.79±0.41	1.98±0.38	0.170	/	/	/
	CMJs100 <sup>‡§</sup>	1.89±0.36	1.90±0.40	2.04±0.46	0.022*	0.02	0.62	0.50
	CMJs150 <sup>‡§</sup>	1.80±0.31	1.93±0.36	2.13±0.42	0.001*	0.59	1.00	0.77
	CMJs200 <sup>‡§</sup>	1.73±0.30	1.84±0.35	2.06±0.31	0.001*	0.61	1.59	1.19

**NOTE:** CMJ = countermovement jump; PGRF = peak ground reaction force. DJH30 = drop jump from 30cm drop height; DJH40 = Drop jump from 40cm drop height; DJH50 = drop jump from 50cm drop height. “\*”Indicates a significant difference between three drop heights; “‡”indicates a significant difference from DJH30 and DJH50; “§” indicates a significant difference from DJH40 and DJH50 ( $p < 0.05$ ).

Table S8. The Side-to-side asymmetry of PGRF among countermovement jumps

Variables	CMJ	DJH30	DJH40	DJH50	<i>p</i>	<i>ES</i> (40/30)	<i>ES</i> (50/30)	<i>ES</i> (50/40)
<b>PGRF (BW)</b>	Pre-CMJ	0.33±0.25	0.39±0.17	0.43±0.24	0.251	/	/	/
	CMJs50	0.19±0.29	0.30±0.22	0.32±0.22	0.183	/	/	/
	CMJs100 <sup>‡§</sup>	0.13±0.11	0.27±0.19	0.45±0.23	0.001*	0.84	1.55	0.74
	CMJs150 <sup>‡§</sup>	0.26±0.21	0.35±0.20	0.54±0.27	0.001*	0.53	0.92	0.72
	CMJs200 <sup>‡§</sup>	0.22±0.20	0.31±0.19	0.55±0.30	0.001*	0.77	1.36	0.89

**NOTE:** CMJ = countermovement jump; PGRF = peak ground reaction force. DJH30 = drop jump from 30cm drop height; DJH40 = Drop jump from 40cm drop height; DJH50 = drop jump from 50cm drop height. “\*”Indicates a significant difference between three drop heights; “‡”indicates a significant difference from DJH30 and DJH50; “§” indicates a significant difference from DJH40 and DJH50 ( $p < 0.05$ ).

Table S9. Muscles simulation activation (%) during countermovement jump squat phase.

Variables	Muscles	DJH30	DJH40	DJH50	<i>p</i>	<i>ES</i> (40/30)	<i>ES</i> (50/30)	<i>ES</i> (50/40)
pre-CMJ	RTA	18.97±7.51	19.38±5.21	20.93±6.00	0.347	/	/	/
	LTA	19.60±5.78	19.70±5.90	19.99±5.79	0.930	/	/	/
	RSOL	18.12±5.72	18.57±3.79	20.12±4.85	0.298	/	/	/
	LSOL	18.02±4.40	18.55±4.41	20.02±6.15	0.243	/	/	/
	RQF	12.20±9.39	13.12±6.79	14.43±10.07	0.545	/	/	/
	LQF	13.77±11.00	17.07±13.80	17.24±15.83	0.448	/	/	/
	RGA	23.08±7.40	23.72±6.47	24.83±8.31	0.514	/	/	/
	LGA	22.29±6.42	23.59±5.46	24.86±5.59	0.173	/	/	/
	RBF	7.70±6.70	8.40±5.80	8.70±8.00	0.778	/	/	/
	LBF	6.50±4.80	7.10±8.10	8.20±6.90	0.720	/	/	/
CMJs50	RTA <sup>‡§</sup>	18.87±4.36	20.58±5.11	22.35±5.17	0.000*	0.58	1.12	0.95
	LTA <sup>‡§</sup>	17.58±7.12	20.02±6.68	23.12±6.57	0.001*	0.58	1.12	0.95
	RSOL <sup>‡§</sup>	17.06±6.68	19.97±6.48	22.53±6.09	0.000*	0.69	1.08	0.77
	LSOL <sup>‡§</sup>	18.99±4.77	20.32±5.76	22.52±5.65	0.001*	0.36	1.03	0.67
	RQF <sup>‡§</sup>	8.63±9.29	13.82±12.04	23.18±16.17	0.001*	0.71	1.39	1.12
	LQF <sup>‡§</sup>	8.52±6.91	17.04±14.47	26.48±16.08	0.001*	0.63	1.70	1.21
	RGA <sup>‡§</sup>	20.79±8.36	23.96±7.04	26.92±7.06	0.001*	0.55	1.07	0.82
	LGA <sup>‡§</sup>	23.53±6.50	25.06±6.43	27.44±6.83	0.001*	0.39	0.96	0.84
	RBF <sup>‡§</sup>	6.90±5.50	10.80±6.50	14.00±6.20	0.002*	0.51	0.89	0.77
	LBF <sup>‡§</sup>	6.30±4.10	6.70±4.20	18.20 ±23.10	0.016*	0.09	0.57	0.50
CMJs100	RTA <sup>‡§</sup>	20.47±6.65	20.36±5.67	16.68±7.56	0.003*	0.03	0.75	0.69
	LTA <sup>‡§</sup>	22.31±8.09	20.52±7.69	18.47±9.96	0.030*	0.32	0.73	0.29
	RSOL <sup>‡§</sup>	22.21±5.77	18.22±5.31	17.04±5.68	0.001*	1.02	1.42	0.51
	LSOL <sup>‡§</sup>	21.25±5.90	18.96 ±5.44	17.68±5.41	0.001*	0.83	0.91	0.53
	RQF <sup>‡§</sup>	18.45±13.24	11.38±11.28	6.18±6.52	0.001*	0.66	1.06	0.63
	LQF <sup>‡§</sup>	22.72±15.24	14.31±11.77	9.37±67.05	0.001*	1.29	1.04	0.55
	RGA <sup>‡§</sup>	26.35±5.97	22.05±5.96	20.66±6.58	0.001*	1.04	1.37	0.51
	LGA <sup>‡§</sup>	26.20±7.10	22.76±6.57	20.82±6.05	0.001*	1.00	1.34	0.86
	RBF <sup>‡§</sup>	10.90±5.60	7.70±4.20	4.60±3.30	0.001*	0.92	1.00	0.65
	LBF <sup>‡§</sup>	16.50±16.60	10.00±10.00	5.80±5.10	0.007*	0.60	0.71	0.59
CMJs150	RTA <sup>‡§</sup>	19.27±5.22	17.05±5.67	14.40±5.24	0.001*	0.66	0.92	0.68
	LTA <sup>‡§</sup>	19.68±4.91	18.82±6.74	17.09±6.39	0.038*	0.18	0.57	0.56
	RSOL <sup>‡§</sup>	20.14±4.99	17.96±4.70	16.16 ±5.28	0.001*	0.82	0.97	0.75
	LSOL <sup>‡§</sup>	21.96±5.21	19.85±5.42	18.11±5.58	0.001*	0.50	0.88	0.56
	RQF <sup>‡§</sup>	19.25±11.84	13.22±10.82	7.83±9.44	0.001*	0.85	1.23	0.83
	LQF <sup>‡§</sup>	32.70±22.20	19.78±16.08	13.20±11.50	0.001*	0.91	1.15	0.65
	RGA <sup>‡§</sup>	24.61±5.85	21.80±5.46	19.22 ±6.12	0.003*	1.10	1.30	1.19
	LGA <sup>‡§</sup>	25.21±6.51	22.41±6.11	20.20±5.80	0.001*	0.64	0.93	0.76
	RBF <sup>‡§</sup>	10.30±5.90	6.80±3.10	5.10±2.60	0.001*	0.77	0.90	0.61

<b>CMJs200</b>	LBF <sup>‡§</sup>	11.10±12.90	7.00±7.20	3.60±2.90	0.017*	0.63	0.62	0.55
	RTA <sup>‡§</sup>	19.48±5.37	16.57±5.24	14.21±4.65	0.001*	0.66	0.92	0.71
	LTA <sup>‡§</sup>	19.61±5.51	17.89±6.70	12.12±9.06	0.011*	0.40	0.70	0.56
	RSOL <sup>‡§</sup>	19.16±4.67	16.38±5.58	14.48±4.38	0.001*	0.59	0.96	0.53
	LSOL <sup>‡§</sup>	18.31±5.05	16.80±5.07	15.39±4.86	0.005*	0.41	0.82	0.78
	RQF <sup>‡§</sup>	21.27±15.50	16.66±13.82	11.58±12.41	0.002*	0.53	0.81	0.81
	LQF <sup>‡§</sup>	26.51±19.88	17.02±13.28	11.57±13.37	0.001*	0.71	1.01	0.66
	RGA <sup>‡§</sup>	23.49±6.69	21.55±6.13	19.13±5.73	0.033*	0.32	0.56	0.54
	LGA <sup>‡§</sup>	23.38±4.98	20.78±6.54	18.62±6.52	0.001*	0.55	1.23	0.80
	RBF <sup>‡§</sup>	11.50±7.10	8.20±4.40	5.10±4.40	0.001*	0.60	0.88	0.76
	LBF <sup>‡§</sup>	14.20±16.50	9.10±8.10	3.20±3.80	0.009*	0.53	0.69	0.74

**NOTE:** CMJ=countermovement jump; DJH30 = Drop jump from 30 cm drop heights; DJH40 = Drop jump from 40 cm drop heights; DJH50 = Drop jump from 50 cm drop heights. RTA=Right tibial anterior; LTA=Left tibial anterior; RSOL=Right soleus; LSOL= Left soleus; RQF=Right Quadratus Femoris; LQF=Left Quadratus Femoris; RGA= Right Gastrocnemius; LGA= Left Gastrocnemius; RBF= Right Biceps Femoris; LBF= Left Biceps Femoris. One-way repeated measures ANOVA of 5 CMJ (CMJs50, MJs100, CMJs150, CMJs200 and CMJs250). The post-hoc test was performed by LSD among DJH30, DJH40, DJH50. “\*”Indicates a significant difference between three drop heights; “‡”indicates a significant difference from DJH30 and DJH50; “§” indicates a significant difference from DJH40 and DJH50 (p < 0.05).

Table S10. Muscles simulation activation (%) during countermovement jump push-off phase.

Variables	Muscles	DJH30	DJH40	DJH50	<i>p</i>	<i>ES</i> (40/30)	<i>ES</i> (50/30)	<i>ES</i> (50/40)
<b>pre-CMJ</b>	RTA	34.30±10.56	34.46±6.53	37.55±9.02	0.177	/	/	/
	LTA	34.17±8.04	35.57±7.42	36.44±6.77	0.241	/	/	/
	RSOL	36.18±10.80	37.89±8.43	38.96±9.80	0.352	/	/	/
	LSOL	37.14±8.48	38.31±8.68	38.42±8.70	0.476	/	/	/
	RQF	1.98 ±5.83	2.65±5.30	6.79±12.29	0.063	/	/	/
	LQF	8.82±11.41	9.44 ±12.54	12.65 ±14.07	0.192	/	/	/
	RGA	39.93±7.89	40.51±9.59	43.27±9.85	0.180	/	/	/
	LGA	39.44±8.31	40.03±9.71	41.03 ±8.98	0.716	/	/	/
	RBF	29.70±22.20	19.20±15.20	16.10±16.90	0.108	/	/	/
	LBF	23.90±17.80	21.00±15.10	16.60±22.20	0.260	/	/	/
<b>CMJs50</b>	RTA <sup>‡§</sup>	37.44±12.73	40.64 ±12.21	43.46 ±11.58	0.001*	0.59	0.95	0.63
	LTA <sup>‡§</sup>	34.80±7.86	36.54±7.55	39.74±7.82	0.001*	0.39	0.88	0.76
	RSOL <sup>‡§</sup>	38.00±12.99	41.66±12.13	44.45±11.47	0.001*	0.62	1.03	0.58
	LSOL <sup>‡§</sup>	34.04±5.87	36.05±7.34	40.07±7.56	0.001*	0.45	1.16	1.04
	RQF <sup>‡§</sup>	2.71±6.29	4.97±7.68	10.35±13.53	0.007*	0.34	0.66	0.52
	LQF <sup>‡§</sup>	7.25 ±11.75	11.67 ±13.41	17.19±18.08	0.001*	0.42	0.87	0.60
	RGA <sup>‡§</sup>	46.22 ±12.35	47.97±11.60	51.10±10.95	0.005*	0.48	0.78	0.51
	LGA <sup>‡§</sup>	43.78±9.37	45.66±9.48	48.96±8.01	0.001*	0.32	0.86	0.74
	RBF <sup>‡§</sup>	42.30 ±35.30	27.00±19.20	15.00±13.20	0.010*	0.64	0.67	0.55

<b>CMJs100</b>	LBF <sup>‡§</sup>	34.60±28.00	30.80±28.30	20.70±23.10	0.001*	0.29	0.89	0.87
	RTA <sup>‡§</sup>	40.29±9.26	37.26±8.67	34.83±8.47	0.001*	0.76	1.22	1.14
	LTA <sup>‡§</sup>	38.63±7.61	36.68±8.59	34.87±8.16	0.006*	0.37	0.78	0.54
	RSOL <sup>‡§</sup>	40.66 ±8.88	38.13 ±9.01	36.28 ±9.19	0.003*	0.54	0.80	0.68
	LSOL <sup>‡§</sup>	39.30±10.74	36.65±8.53	34.55±8.16	0.001*	0.60	0.87	0.74
	RQF <sup>‡§</sup>	12.29 ±12.27	5.79±7.55	1.73±2.58	0.001*	0.55	0.93	0.57
	LQF <sup>‡§</sup>	19.01±21.98	13.63±18.53	8.77±14.69	0.004*	0.76	0.76	0.65
	RGA <sup>‡§</sup>	49.29±10.64	47.16±9.71	43.81±10.39	0.002*	0.37	1.05	0.98
	LGA <sup>‡§</sup>	46.91±7.45	44.49±7.26	43.10±7.56	0.002*	0.56	0.92	0.67
	RBF <sup>‡§</sup>	12.70±11.90	24.20 ±17.90	44.70±28.10	0.000*	0.63	1.17	0.88
<b>CMJs150</b>	LBF <sup>‡§</sup>	18.30±18.10	26.50±23.50	43.20±28.70	0.001*	0.37	1.07	0.76
	RTA <sup>‡§</sup>	38.52±8.01	35.85±7.28	33.72±6.74	0.001*	0.74	0.85	0.63
	LTA <sup>‡§</sup>	37.58±7.06	34.74±5.96	33.65±6.35	0.001*	0.78	1.18	0.87
	RSOL <sup>‡§</sup>	39.40±7.73	37.02±7.94	34.47±7.05	0.001*	0.60	0.96	0.61
	LSOL <sup>‡§</sup>	39.27±8.89	35.00±7.84	31.90±9.33	0.001*	1.04	1.35	0.83
	RQF <sup>‡§</sup>	10.07±14.73	5.04±11.53	2.48 ±6.75	0.006*	0.58	0.73	0.51
	LQF <sup>‡§</sup>	20.75±23.20	12.05±16.53	8.51±13.64	0.001*	0.76	0.98	0.59
	RGA <sup>‡§</sup>	48.97±11.46	45.64±11.82	43.13±11.11	0.001*	0.88	1.01	0.69
	LGA <sup>‡§</sup>	48.33±9.39	45.49±9.55	42.37±9.71	0.001*	0.64	1.17	1.09
	RBF <sup>‡§</sup>	17.50±12.60	28.00±21.50	45.00±28.20	0.001*	0.48	0.93	0.85
<b>CMJs200</b>	LBF <sup>‡§</sup>	12.20±13.50	20.60±18.70	38.60 ±24.00	0.001*	0.34	0.93	0.93
	RTA <sup>‡§</sup>	35.59±6.82	31.58±6.20	28.30±5.29	0.001*	1.11	1.60	0.80
	LTA <sup>‡§</sup>	35.53±7.48	31.91±7.54	28.81±8.11	0.001*	0.84	1.37	0.39
	RSOL <sup>‡§</sup>	37.48±7.62	34.35±6.73	30.43 ±5.91	0.001*	0.55	1.26	0.95
	LSOL <sup>‡§</sup>	36.97±8.99	33.59±7.23	29.95±7.73	0.001*	0.73	1.37	1.09
	RQF <sup>‡§</sup>	11.62±13.12	6.52 ±12.20	1.06±3.13	0.001*	0.50	0.88	0.51
	LQF <sup>‡§</sup>	20.56±21.64	10.39±13.76	2.98±5.71	0.002*	1.06	0.87	0.62
	RGA <sup>‡§</sup>	49.56±10.58	45.06±9.21	41.38 ±11.54	0.001*	0.77	1.29	0.77
	LGA <sup>‡§</sup>	48.57±8.72	45.46±8.83	42.63±8.49	0.001*	0.84	1.23	0.65
	RBF <sup>‡§</sup>	12.80±12.90	23.60 ±17.30	33.40 ±20.10	0.001*	0.67	1.09	0.78
<b>CMJs250</b>	LBF <sup>‡§</sup>	16.40±18.00	21.70±23.50	36.50±27.90	0.001*	0.76	0.32	0.99

**NOTE:** CMJ=countermovement jump; DJH30 = Drop jump from 30 cm drop heights; DJH40 = Drop jump from 40 cm drop heights; DJH50 = Drop jump from 50 cm drop heights. RTA=Right tibial anterior; LTA=Left tibial anterior; RSOL=Right soleus; LSOL= Left soleus; RQF=Right Quadratus Femoris; LQF=Left Quadratus Femoris; RGA= Right Gastrocnemius; LGA= Left Gastrocnemius; RBF= Right Biceps Femoris; LBF= Left Biceps Femoris. One-way repeated measures ANOVA of 5 CMJ (CMJs50, MJs100, CMJs150, CMJs200 and CMJs250). The post-hoc test was performed by LSD among DJH30, DJH40, DJH50. "\*"Indicates a significant difference between three drop heights; "‡"indicates a significant difference from DJH30 and DJH50; "§" indicates a significant difference from DJH40 and DJH50 ( $p < 0.05$ ).

Table S11. Muscles simulation activation (%) during countermovement jump landing phase.

Variables	Muscles	DJH30	DJH40	DJH50	<i>p</i>	<i>ES</i> (40/30)	<i>ES</i> (50/30)	<i>ES</i> (50/40)
pre-CMJ	RTA	23.29±6.49	24.05±5.39	24.48±6.39	0.730	/	/	/
	LTA	22.79±5.72	24.40±6.66	25.45±6.30	0.069	/	/	/
	RSOL	23.95±6.66	23.99±4.59	25.19±6.43	0.567	/	/	/
	LSOL	24.42 ±5.92	24.63±5.22	26.38±7.55	0.162	/	/	/
	RQF	9.82±7.60	10.49±9.56	13.07±9.22	0.306	/	/	/
	LQF	12.54±15.70	13.12±11.10	18.57 ±13.91	0.197	/	/	/
	RGA	29.73±8.54	30.57±6.49	31.16±8.38	0.671	/	/	/
	LGA	29.66±6.72	29.82±7.06	32.06±7.38	0.100	/	/	/
	RBF	14.70±6.90	11.10±6.40	10.60±5.60	0.071	/	/	/
	LBF	14.40±9.30	14.10±9.50	10.20±8.00	0.260	/	/	/
CMJs50	RTA <sup>‡§</sup>	24.47±9.40	26.39±8.32	29.44±8.31	0.002*	0.37	0.88	1.08
	LTA <sup>‡§</sup>	24.21±6.84	25.80±6.92	28.29±7.28	0.001*	0.39	0.96	0.63
	RSOL <sup>‡§</sup>	24.69±9.63	27.64±8.22	29.81±8.61	0.001*	0.60	0.90	0.65
	LSOL <sup>‡§</sup>	24.13±4.83	25.88±5.92	28.27±5.83	0.001*	0.43	0.95	0.61
	RQF <sup>‡§</sup>	6.55±7.53	10.88±10.35	17.00±12.18	0.001*	0.67	1.32	1.04
	LQF <sup>‡§</sup>	8.01±6.68	16.91±13.90	24.46±14.27	0.001*	0.67	1.32	1.04
	RGA <sup>‡§</sup>	28.43±9.24	31.99±8.04	34.19±7.82	0.001*	0.58	0.99	0.71
	LGA <sup>‡§</sup>	29.72±7.67	31.56±8.33	34.18±7.86	0.001*	0.35	1.00	0.61
	RBF <sup>‡§</sup>	19.00±11.0	13.60±5.50	9.80±5.80	0.004*	0.61	0.76	0.53
	LBF <sup>‡§</sup>	20.40±11.3	16.20±11.5	11.00±9.60	0.001*	0.66	0.98	0.59
CMJs100	RTA <sup>‡§</sup>	26.08±5.91	22.77±4.28	20.66±5.23	0.001*	0.79	1.29	0.99
	LTA <sup>‡§</sup>	26.55±6.29	23.67±5.07	22.45±4.75	0.001*	0.68	1.15	0.55
	RSOL <sup>‡§</sup>	27.47±4.93	24.74±3.91	22.88±5.22	0.001*	0.60	1.02	0.77
	LSOL <sup>‡§</sup>	27.42±5.69	25.19±5.35	23.84±5.03	0.001*	0.65	0.96	0.78
	RQF <sup>‡§</sup>	18.59±10.98	11.12±10.46	6.67±4.79	0.001*	0.76	1.21	0.54
	LQF <sup>‡§</sup>	20.33±14.23	16.68±13.82	9.56±7.37	0.004*	0.68	0.84	0.55
	RGA <sup>‡§</sup>	33.39±7.03	29.92±6.82	28.16±8.07	0.001*	0.74	1.05	0.63
	LGA <sup>‡§</sup>	33.51±6.47	30.25±6.47	28.61±5.92	0.001*	0.83	1.06	0.69
	RBF <sup>‡§</sup>	8.10±6.20	14.30±6.90	23.70±13.10	0.001*	0.77	1.28	0.93
	LBF <sup>‡§</sup>	8.30±8.60	15.30±9.70	21.70±12.60	0.001*	0.74	1.31	0.73
CMJs150	RTA <sup>‡§</sup>	25.18±5.92	23.76±6.04	21.52±6.11	0.001*	0.42	0.86	0.73
	LTA <sup>‡§</sup>	27.13±5.74	24.72±6.44	21.76±6.21	0.002*	0.54	1.08	0.73
	RSOL <sup>‡§</sup>	25.80±6.79	23.67±6.08	20.85±6.43	0.001*	0.66	0.91	0.90
	LSOL <sup>‡§</sup>	27.99±6.03	25.63±6.96	23.59±6.73	0.001*	0.54	1.01	0.64
	RQF <sup>‡§</sup>	14.37±8.56	10.59±8.39	7.46 ±5.41	0.001*	0.46	0.90	0.62
	LQF <sup>‡§</sup>	25.24±17.34	19.22±14.62	11.42±11.83	0.001*	0.56	1.05	0.66
	RGA <sup>‡§</sup>	31.75±7.36	29.93±7.47	26.13±7.61	0.001*	0.41	0.89	0.95
	LGA <sup>‡§</sup>	33.32±6.86	30.42±7.74	28.46±8.01	0.001*	0.55	0.95	0.55
	RBF <sup>‡§</sup>	10.40±6.00	16.60±10.10	25.20±11.90	0.001*	0.62	1.23	1.35

<b>CMJs200</b>	LBF <sup>‡§</sup>	12.00±10.50	15.00±9.30	22.20±12.00	0.005*	0.26	0.75	1.02
	RTA <sup>‡§</sup>	25.04±5.62	22.59±6.31	19.68±5.15	0.001*	0.48	0.83	0.69
	LTA <sup>‡§</sup>	22.76±4.56	20.18±4.91	18.14±4.71	0.001*	0.63	1.05	0.78
	RSOL <sup>‡§</sup>	26.11±6.92	23.22±7.79	19.79±4.67	0.001*	0.58	1.21	0.60
	LSOL <sup>‡§</sup>	26.39±4.86	22.42±5.03	20.30±5.79	0.001*	0.95	1.35	0.57
	RQF <sup>‡§</sup>	15.75±12.56	10.19±11.32	6.70±8.52	0.001*	0.67	0.92	0.56
	LQF <sup>‡§</sup>	16.77±14.38	12.68±9.01	8.13±6.54	0.003*	0.41	0.78	0.57
	RGA <sup>‡§</sup>	29.28±7.71	27.01±7.12	22.79±5.71	0.003*	0.33	0.81	0.95
	LGA <sup>‡§</sup>	28.05±5.85	25.46±6.25	20.76±5.88	0.001*	0.43	1.23	1.13
	RBF <sup>‡§</sup>	10.80±8.40	13.00±6.80	19.90±9.20	0.001*	0.23	0.88	0.89
	LBF <sup>‡§</sup>	6.70±7.10	13.90±11.30	23.50±15.10	0.001*	0.82	1.29	0.91

**NOTE:** CMJ=countermovement jump; DJH30 = Drop jump from 30 cm drop heights; DJH40 = Drop jump from 40 cm drop heights; DJH50 = Drop jump from 50 cm drop heights. RTA=Right tibial anterior; LTA =Left tibial anterior; RSOL=Right soleus; LSOL= Left soleus; RQF=Right Quadratus Femoris; LQF=Left Quadratus Femoris; RGA= Right Gastrocnemius; LGA= Left Gastrocnemius; RBF= Right Biceps Femoris; LBF= Left Biceps Femoris. One-way repeated measures ANOVA of 5 CMJ (CMJs50, MJs100, CMJs150, CMJs200 and CMJs250). The post-hoc test was performed by LSD among DJH30, DJH40, DJH50. "\*"Indicates a significant difference between three drop heights; "‡"indicates a significant difference from DJH30 and DJH50; "§" indicates a significant difference from DJH40 and DJH50 (p < 0.05).