

**Supplementary Table 2.** Patellofemoral joint reaction force in healthy individuals

Study	Population	Participant characteristics	Task	Condition/Intervention	Peak <i>Speed/cadence</i>
<b>Walking</b>					
Brechtler 2002‡ [36]	Healthy pain-free individuals (n=10)	age=32±7yrs mass=68±15kg M:F=5:5	Walking	Speed	Self-selected: 9.5±1.2N/kg Fast: 13.4±1.2N/kg <i>Self-selected: 1.38±0.11m/s</i> <i>Fast (self-selected): 1.80±0.11m/s</i>
Chen 2010 [39]	Healthy pain-free individuals (n=20)  <i>(Included data from males only)</i>	age=26±4yrs mass=68±9kg M:F=10:10	Walking		10.2±1.4N/kg <i>Prescribed: 1.33m/s</i>
Chen 2014‡ [38]	Healthy pain-free females (n=20)	age=26±7yrs mass=59±7kg M:F=0:20	Walking		9.8±1.3N/kg <i>Prescribed: 1.33m/s</i>
Costigan 2002 [41]	Healthy individuals (n=35)	age=25yrs±NR mass=65kg±NR M:F=15:20	Walking		3.4±2.4N/kg <i>Not reported</i>
Ho 2012 [51]	Healthy females (n=11)	age=25±3yrs mass=56±7kg M:F=0:11	Walking	Shoes with different heel height	Low: 5.2±3.0N/kg Medium: 8.4±4.0N/kg High: 12.7±6.0N/kg <i>Low (self-selected) 1.38±0.17m/s</i> <i>Medium (self-selected) 1.38±0.18m/s</i> <i>High (self-selected) 1.39±0.17m/s</i>
Peng 2020 [63]	Healthy individuals with flat feet (n=15)	age=22±1yrs mass=58±8kg M:F=9:6	Walking	Orthotics	Baseline: 1.32±0.69BW Orthotics: 1.18±0.63BW <i>Baseline (self-selected): not reported</i> <i>Orthotics (self-selected): not reported</i>

Sinclair 2019 [71]	Healthy females with experience wearing high heels (n=12)	age=31±6yrs mass=63±7kg M:F=0:12	Walking	Shoes with different heel height	High: 1.31±0.41BW Medium: 1.09±0.42BW Low: 0.92±0.42BW Trainer: 0.80±0.39BW <i>Prescribed (all conditions): 1.5m/s (±5%)</i>
	Healthy females without experience wearing high heels (n=12)	age=29±5yrs mass=65±6kg M:F=0:12		Shoes with different heel height	High: 1.43±0.51BW Medium: 1.07±0.33BW Low: 1.10±0.52BW Trainer: 0.84±0.40BW <i>Prescribed (all conditions): 1.5m/s (±5%)</i>
Thoma 2017‡ [83]	Healthy pain-free individuals (n=19)	age=30±7yrs mass=76±9kg M:F=10:9	Walking		1.2±0.5BW <i>Self-selected: 1.46±0.18 m/s</i>
Van Rossom 2018 [84]	Healthy individuals (n=15)	age=31±6yrs BMI=22±2kg/m <sup>2</sup> M:F=8:7	Walking		1.1±0.4BW <i>Self-selected: not reported</i>
Ward 2004 [88]	Pain-free healthy individuals (n=11)	age=28±4yrs mass=57±7kg M:F=NR	Walking	Speed	Normal: 506±249N Fast: 753±377N <i>Normal (prescribed): 1.42m/s (±5%)</i> <i>Fast (prescribed): 2.00m/s (±5%)</i>
Willy 2019 [92]	Healthy male cadets (n=16)	age=20±3yrs mass=77±13kg M:F=16:0	Walking	Load 20kg Step length manipulation	No load: 1.02 [0.87 to 1.17]BW Load: 1.47 [1.32 to 1.62]BW  Short step length with load: 1.17 [0.97, 1.37]BW Long step length with load: 1.63 [1.38, 1.88]BW <i>Prescribed (all conditions): 1.3m/s</i>
<b>Running</b>					
Almonroeder 2015 [26]	Healthy recreationally active females with rearfoot strike (n=18)	age=24±6yrs mass=62±13kg M:F=0:18	Running	Orthotics	62.67±13.74N/kg <i>Prescribed (all conditions): 4.0m/s (±5%)</i>

Almonroeder 2017 [25]	Healthy recreationally active females with rearfoot strike (n=18)	age=25±6yrs mass=NR M:F=0:18	Running		58.30±12.20N/kg <i>Prescribed: 4.0m/s (±5%)</i>
	Healthy recreationally active males with rearfoot strike (n=14)	age=25±6yrs mass=NR M:F=14:0	Running		69.90±14.90N/kg <i>Prescribed: 4.0m/s (±5%)</i>
Bonacci 2014 [35]	Healthy highly trained runners (n=22)	age=29±6yrs mass=66±9kg M:F=14:8	Running	With and without shoes	Barefoot: 67.5±10.9N/kg Shoes: 76.4±12.2N/kg <i>Partially prescribed (all conditions): 90% of participant's best 10km time in the past 12 months, group average: 4.47±1.69m/s</i>
Chen 2010 [39]	Healthy pain-free individuals (n=20)  <i>(Included data from males only)</i>	age=26±4yrs mass=68±9kg M:F=10:10	Running		60.1±2.6N/kg <i>Prescribed: 3.33m/s</i>
Chen 2014‡ [38]	Healthy pain-free females (n=20)	age=26±7yrs mass=59±7kg M:F=0:20	Running		54.8±5.3N/kg <i>Prescribed: 3.33m/s</i>
Herrington 2017 [50]	Healthy individuals (n=34)	age=22±4yrs mass=79±13kg M:F=24:10	Running		4.8±2.1BW (Average) <i>Self-selected: 3.5±0.58 m/s</i>
Ho 2018 [52]	Healthy recreational runners (n=20)	age=25±2yrs mass=67±10kg M:F=10:10	Running	Different surface slopes	Incline: 40.2±9.7N/kg Level: 40.0±9.5N/kg Decline: 54.7±11.2N/kg <i>Prescribed (all conditions): 2.3m/s</i>

Kujawa 2020 [56]	Healthy recreational female runners (n=19)	age=21±2yrs mass=65±10kg M:F=0:19	Running	9kg added load	No load: 6.57±0.89BW Load: 7.45±1.06BW <i>Prescribed (all conditions): 3.46m/s (±2.5%)</i>
Kulmala 2013 [57]	Healthy female athletes with forefoot strike (n=19)	age=19±5yrs mass=63±9kg M:F=0:19	Running		4.3±1.2BW <i>Prescribed: 4.0 m/s</i>
	Healthy female athletes with rearfoot strike (n=19)	age=18±4yrs mass=63±9kg M:F=0:19			5.1±1.1BW <i>Prescribed: 4.0 m/s</i>
Lenhart 2014 [58]	Healthy recreational runners (n=30)	age=33±14yrs mass=69±11kg M:F=15:15	Running	Different step rates	Preferred (100%): 5.8±1.0BW Increased (110%): 5.0±1.1BW Decreased (90%): 6.64±1.1BW <i>Self-selected (all conditions): 2.81±0.38 m/s</i>
Liao 2018‡ [59]	Healthy female recreational runners (n=10)	age=27±6yrs mass=59±7kg M:F=0:10	Running		3562±1026N <i>Prescribed: 2.7 m/s</i>
Messier 2008 [61]	Non injured runners (n=20)	age=36±8yrs mass=66±9kg M:F=7:13	Running		4.3±1.7BW <i>Prescribed: 3.35m/s (±3.5%)</i>
Roos 2012 [68]	Moderately active healthy individuals (n=17)	n= 17 age=28±6yrs mass=71±20kg M:F=7:10	Running	Different directions	Forward: 4.5±1.5BW Backward: 3.4±1.4BW <i>Prescribed (all conditions): between 2.8 and 3.4 m/s</i>
Sussman 2000 [80]	Healthy active individuals (n=10)	age=22±2yrs mass=700±138N M:F=6:4	Running	Different directions	Forward: 3.41±0.92 Backward: 3.51±0.91BW <i>Partially prescribed: same speed ±3% error in both conditions.</i>

Sinclair 2014 [69]	Healthy male recreational runners (n=30)	age=26±6yrs mass=73±6kg M:F=30:0	Running	Different minimalist shoes	Barefoot: 3.2±1.0BW Vibram5Fingers: 3.4±1.3BW Inov-8: 3.6±1.3BW Nike-free: 4.0±1.3BW <i>Prescribed (all conditions): 4.0m/s</i>
Sinclair 2016 [76]	Healthy male recreational runners (n=20)	age=24±3yrs mass=78±6kg M:F=20:0	Running	Different shoes	Maxim: 4.7±0.9BW Minimal: 3.9±1.0BW <i>Prescribed (all conditions): 4.0m/s (±5%)</i>
Sinclair 2019 [74]	Healthy male recreational runners (n=16)	age=29±6yrs mass=77±9kg M:F=16:0	Running	Orthotics	No orthotics: 39.00±13.16N/kg Medial orthotics: 40.26±14.78N/kg Lateral orthotics: 40.54±16.90N/kg Semi-custom: 40.01±14.42N/kg Off the shelf: 39.14±13.50N/kg <i>Prescribed (all conditions): 4.0m/s (±5%)</i>
	Healthy female recreational runners (n=20)	age=32±7yrs mass=66±7kg M:F=0:20	Running	Orthotics	No orthotic: 44.59±10.83N/kg Medial orthotics: 46.86±14.56N/kg Lateral orthotics: 48.56±12.39N/kg Semi-custom: 49.01±16.86N/kg Off the shelf: 44.39±11.53N/kg <i>Prescribed (all conditions): 4.0m/s (±5%)</i>
Teng 2020 [81]	Asymptomatic recreational runners (n=12)	age=23±4yrs mass=67±7kg M:F=7:5	Running	Gait retraining with visual feedback on trunk flexion	Baseline: 47.1±8.1N/kg Post-training (week 4): 40.2±10.0N/kg <i>Self-selected: 2.9±0.4 m/s</i>
Teng 2014 [82]	Asymptomatic recreational runners (n=24)	age=28±7yrs (M), 27±6yrs (F) mass=71±7kg (M), 63±7kg (F) M:F=12:12	Running	Different trunk positions	Flexed: 71.0±11.1N/kg Self-selected: 75.0±10.2N/kg Extended: 81.3±12.7N/kg <i>Prescribed (all conditions): 3.4m/s</i>

Wang 2020 [87]	Healthy recreational runners (n=15)  Group A: Control	age=28±5yrs mass=75±12kg M:F=15:0	Running	12-week gait retraining  Minimalist shoes with original foot strike pattern	Baseline: 4.4±1.6BW Post-training: 4.2±1.7BW <i>Prescribed: 3.5m/s (±5%)</i>
	Healthy recreational runners (n=15)  Group B: Experiment	age=32±6yrs mass=70±6kg M:F=15:0		12-week gait retraining  Minimalist shoes with forefoot strike pattern	Baseline: 4.5±1.1BW Post-training: 4.0±0.9BW <i>Prescribed: 3.5m/s (±5%)</i>
Willy 2016 [94]	Healthy male cadets (n=16)	age=20±3yrs mass=77±13kg M:F=16:0	Running	Step rate and load	Preferred step rate unloaded: 5.1±1.3BW Preferred step rate loaded: 5.3±1.2BW Increased step rate unloaded: 4.5±1.2BW Increased step rate loaded: 4.8±1.1BW <i>Prescribed (all conditions): 2.7m/s</i>
Willy 2016 [93]	Healthy recreational runners (n=18)	age=24±4yrs BMI=22±3kg/m <sup>2</sup> M:F=9:9	Running	Surface	Treadmill: 4.0±1.0BW Overground: 4.0±0.8BW <i>Treadmill (self-selected): 2.88±0.26 m/s</i> <i>Overground (self-selected): 2.89±0.27 m/s</i>
Willson 2015 [90]	Healthy male runners (n=17)  Healthy female runners (n=18)	age=22yrs±NR mass=79kg±NR M:F=17:0  age=23yrs±NR mass=60kg±NR M:F=0:18	Running  Running		4.1±1.0BW <i>Prescribed: 3.5m/s</i>  4.2±0.9BW <i>Prescribed: 3.5m/s</i>
Willson 2015 [91]	Healthy runners (n=20)	age=23yrs±NR (M), 23yrs±NR (F) mass=81kg±NR (M), 58kg±NR (F) M:F=10:10	Running	Step length and strike pattern	Short: 3.1±0.8BW Long: 4.4±0.9BW Rearfoot strike: 4.0±0.7BW Forefoot strike: 3.6±0.7BW <i>Self-selected (all conditions): 2.84±0.22 m/s</i>

Stairs					
Atkins 2019 [29]	Asymptomatic females (n=20)	age=23±3yrs mass=63±12kg M:F=0:20	Stair ascent	Trunk position	Self-selected: 25.5±7.1N/kg Flexed: 15.4±6.4N/kg Extended: 38.2±6.8N/kg Prescribed: 96 BPM (metronome)
Chen 2010 [39]	Healthy pain-free individuals (n=20)  (Included data from males only)	age=26±4yrs mass=68±9kg M:F=10:10	Stair ascent		36.2±2.4N/kg Prescribed: 50 steps per minute
			Stair descent		29.4±2.3N/kg Prescribed: 50 steps per minute
Chen 2014‡ [38]	Healthy pain-free females (n=20)	age=26±7yrs mass=59±7kg M:F=0:20	Stair ascent		35.7±3.1N/kg Prescribed: 50 steps per minute
			Stair descent		28.4±3.2N/kg Prescribed: 50 steps per minute
Costigan 2002 [41]	Healthy individuals (n=35)	age=25yrs±NR mass=65kg±NR M:F=15:20	Stair ascent		30.2±7.9N/kg Self-selected: 0.44±0.05m/s*
Fok 2013‡ [48]	Healthy individuals (n=21)	age=56 (range 52 to 61)yrs mass=71(range 65 to 77) kg M:F=8:13	Stair ascent		1.7±0.8BW Self-selected: 0.51m/s (95% CI 0.47 to 0.57)
			Stair descent		2.2±0.4BW Self-selected: 0.76m/s (95% CI 0.67 to 0.84)
Van Rossom 2018 [84]	Healthy individuals (n=15)	age=31±6yrs BMI=22±2kg/m <sup>2</sup> M:F=8:7	Stair ascent		3.3±0.5BW Self-selected: not reported
			Stair descent		3.4±0.8BW Self-selected: not reported

Waiteman 2018‡ [85]	Healthy females without PFP (n=32)	age=22±3yrs mass=61±10kg M:F=0:32	Stair descent		2.75±2.0N/kg (Average) <i>Self-selected: not reported</i>
<b>Squat</b>					
Almonroeder 2020 [27]	Uninjured females (n=11)	age=23±6yrs mass=64±9kg M:F=0:11	Squat	Verbal instructions	Baseline: 35.4±5.9N/kg Verbal instructions (internal focus): 31.3±5.0N/kg Verbal instructions (external focus): 32.3±5.4N/kg
Escamilla 1998 [43]	Healthy males experienced in weight training (n=10)	age=29±6yrs mass=93±15kg M:F=10:0	Squat		Knee flexion phase: 4548±1395N Knee extension phase: 4042±995N
Escamilla 2001 [44]	Healthy males experienced in weightlifting (n=10)	age=29±6yrs mass=93±15kg M:F=10:0	Squat	Stance	Knee flexion phase Narrow stance: 4246±10470N Knee flexion phase Wide stance: 4674±1195N  Knee extension phase Narrow stance: 3958 ±1105N Knee extension phase Wide stance: 4313±1201N
Escamilla 2009 [47]	Healthy individuals (n=18)	age=29±7yrs (M), 25±2yrs (F) mass=77±9kg (M), 60±4kg (F) M:F=9:9	Squat	Length and leg variation  Dumbbell mass for wall squat 56±9kg for males 36±8kg for females  Dumbbell mass for one leg squat 15±3kg for males 10±3kg for females	Ascent Wall squat short: 3300±750N Ascent Wall squat long: 3000 ±750N Ascent One leg squat: 2900±750N  Descent Wall squat short: 3600±400N Descent Wall squat long: 2900 ±500N Descent One leg squat: 2900±500N
Han 2013 [49]	Healthy individuals (n=15)	age=21±2yrs mass=65±12kg M:F=6:9	Squat	Feet positions	Neutral: 3.9±0.8BW Squeeze squat: 3.6±1.1BW Outward squat: 3.2±0.33BW
Kernozek 2018 [55]	Healthy females (n=25)	age=24±1yrs mass=62±10kg M:F=0:25	Squat	Knee positions	Knees behind toes: 2.4±0.4BW Knees past toes: 3.2±0.4BW



Kernozek 2020 [54]	Healthy individuals (n=20)	age=21±2yrs (M), 21±2yrs (F) mass=87±3kg (M), 77±7kg (F) M:F=3:17	Squat	Real-time visual feedback	Baseline: 4.64±1.05BW Post-feedback: 3.97±0.81BW
Mostamand 2010‡ [62]	Healthy individuals (n=18)	age=26±5yrs mass=72±11kg M:F=11:7	Squat		1922±398N (Average)
Richards 2016 [66]	Healthy individuals (n=18)	age=range 20 to 46yrs mass=75 (range 58 to 100) kg M:F=9:9	Squat	Depth	0 deg: 3366±1516N 5 deg: 3702±1508N 10 deg: 3705±1513N 15 deg: 3792±1427N 20 deg: 5065±2920N 25 deg: 4505±2222N
Sinclair 2020 [72]	Healthy experienced male weightlifters (n=12)	age=29±6yrs mass=83±15kg M:F=12:0	Squat  (barbell back squat)	Different shoes	Adidas weightlifting shoes: 50.90±10.56N/kg Inov-8 weightlifting shoes: 51.71±11.18N/kg Cross-fit shoes: 52.51±10.45N/kg Minimal shoes: 46.54±8.66N/kg
	Healthy experienced female weightlifters (n=12)	age=27±5yrs mass=66±7kg M:F=0:12			Adidas weightlifting shoes: 39.42±8.51N/kg Inov-8 weightlifting shoes: 37.99±9.46N/kg Cross-fit shoes: 39.67±8.90N/kg Minimal shoes: 36.02±9.17N/kg
Van Rossom 2018 [84]	Healthy individuals (n=15)	age=31±6yrs BMI=22±2kg/m <sup>2</sup> M:F=8:7	Squat		3.1±1.2BW
Wallace 2002 [86]	Healthy individuals (n=15)	age=26±5yrs mass=72±16kg M:F=6:9	Squat	External weight (35%BW)	Unloaded: 24.3±5.9N/kg Loaded: 35.1±6.8N/kg

Whyte 2010 [89]	Recreationally active males without reduced hamstring strength (n=8)	age=25±2yrs mass=72±11kg M:F=8:0	Squat		Descent: 7.1±1.2N/kg Ascent: 8.5±1.8N/kg
	Recreationally active males with reduced hamstring strength (n=8)	age=26±2yrs mass=82±10kg M:F=8:0			Descent: 12.2±4.0N/kg Ascent: 13.0±3.3N/kg
Zavala 2020 [95]	Experienced female lifters (n=19)	age=25±6yrs mass=63±10kg M:F=0:19	Squat	Depth (hips relative to knees)	Above: 8.97±1.19BW Parallel: 11.42±1.24BW Below: 14.79±1.64BW
				Load	Unloaded: 7.34±0.86BW 50% depth-specific one repetition max: 11.42±1.24BW 85% depth-specific one repetition max: 16.33±2.04BW
Leg press					
Escamilla 1998 [43]	Healthy males experienced in weight training (n=10)	age=29±6yrs mass=93±15kg M:F=10:0	Isotonic leg press		Knee flexion phase 4780±1194N Knee extension phase 4991±1352N
Escamilla 2001 [44]	Healthy males experienced in weightlifting (n=10)	age=29±6yrs mass=93±15kg M:F=10:0	Isotonic leg press	Stance and foot position	Knee flexion phase High foot placement with narrow stance: 4316±832N High foot placement with wide narrow: 3761±880N Low foot placement with narrow stance: 4541±785N Low foot placement with wide stance: 4000±829N  Knee extension phase High foot placement with narrow stance: 4809±954N High foot placement with wide narrow: 4389±1085N Low foot placement with narrow stance: 4813±978N Low foot placement with wide stance: 4224±950N
Steinkamp 1993 [79]	Healthy individuals (n=20)	age=18 to 45yrs mass=NR M:F=10:10	Isometric leg press		Males: 12083±2860N Females: 7817±1361N

Lunge					
Escamilla 2008 [45]	Healthy individuals (n=18)	age=29±7yrs (M), 25±2yrs (F) mass=77±9kg (M), 60±4kg (F) M:F=9:9	Forward lunge  Side lunge	Stride variation	No stride: 2185±654N Stride: 2411±748N  No stride: 2419±774N Stride: 2668±788N
Escamilla_2008 [46]	Healthy individuals (n=18)	age=29±7yrs (M); 25±2yrs (F) mass=77±9kg (M); 60±4kg (F) M:F=9:9	Lunge	Length and stride variation	Descent Short with stride: 3029±971N Descent Long with stride: 2171±686N Descent Short without stride: 3086±743N Descent Long without stride: 2229±629N  Ascent Short with stride: 2857± 800N Ascent Long with stride: 2172±686N Ascent Short without stride: 2857±800N Ascent Long without stride: 2171±629N
Hofmann 2017 [53]	Healthy recreationally active (n=18)	age=34±13yrs mass=76±11kg M:F=13:5	Lunge	Different trunk and shank positions	Lead leg forward trunk and shank: 42.5±8.0N/kg Lead leg forward trunk vertical shank: 35.4±7.5N/kg Lead leg vertical trunk and shank: 40.7±10.0N/kg  Trail leg forward trunk and shank: 32.6±10.4N/kg Trail leg forward trunk vertical shank: 43.8±10.6N/kg Trail leg vertical trunk and shank: 50.7±8.1N/kg
Sinclair 2015 [70]	Healthy males (n=8)  Healthy females (n=8)	age=29±4yrs mass=75±6kg M:F=8:0  age=23±6yrs mass=64±4kg M:F=0:8	Epee fencing lunge  Epee fencing lunge		2.2±0.4BW  2.9±0.6BW
Van Rossom 2018 [84]	Healthy individuals (n=15)	age=31±6yrs BMI=22±2kg/m <sup>2</sup> M:F=8:7	Lunge	Different lunge types	Forward lunge: 3.1±0.9BW Side lunge: 5.0±1.9BW

Knee extension					
Escamilla 1998 [43]	Healthy males experienced in weight training (n=10)	age=29±6yrs mass=93±15kg M:F=10:0	Isotonic Knee extension		Knee flexion phase: 3724±1940N Knee extension phase: 4846±2453N
MacDonald 1989 [60]	Healthy males (n=10)	age=29 (range 19 to 34) yrs mass=NR M:F=10:0	Isometric knee extension		7.4±1.7BW
	Healthy females (n=8)	age=29 (range 19 to 34) yrs mass=NR M:F=0:8	Isometric knee extension		7.1±2BW
Steinkamp 1993 [79]	Healthy individuals (n=20)	age=18-45yrs mass=NR M:F=10:10	Isometric knee extension		Males: 4405±1042N Females: 2850±496N
Cycling					
Bini 2013 [32]	Healthy male competitive cyclists (n=21)	age=28±7yrs mass=73±8kg M:F=21:0	Cycling	Saddle position	Preferred: 86±12% max workload Forward: 90±15% max workload Backward: 84±12% max workload
Bini 2013 [30]	Healthy male competitive cyclists (n=12)	age=28±7yrs mass=73±8kg M:F=12:0	Cycling	Different cycling workload and cadence	Maximal workload: 4625±1007N 90RPM ventilatory threshold: 3952±915N 70RPM ventilatory threshold: 5554±1120N
Bini 2014 [31]	Healthy recreational cyclists (n=16)	age=40±11yrs mass=82±13kg M:F=NR	Cycling	Saddle height	Optimal: 1812±597 %workload High: 1736±456 %workload Preferred: 1864±543 %workload Low: 1944±611 %workload
Bini 2016 [33]	Healthy male non-athletes (n=14)	age=26±3yrs mass=80±8kg M:F=14:0	Cycling	Assisted and unassisted cycling	Unassisted single leg: 1893±540N Assisted single leg: 1927±542N Assisted double leg: 2367±621N

Bressel 2001 [37]	Physically active healthy males with recreational cycling experience (n=21)	age=28±7yrs mass=78±11kg M:F=21:0	Cycling	Pedaling direction	Backward: 3236±452N Forward: 1544±321N
Sinclair 2018 [77]	Healthy male recreational cyclist (n=15)	age=28±5yrs mass=75±8kg M:F=15:0	Cycling	Different chains	Round: 27.9±6.9N/kg Oval: 25.9±4.4N/kg
<b>Stepping</b>					
Chinkulprasert 2011 [40]	Physically active healthy individuals (n=20)	age=26±5yrs (M), 24±3yrs (F) mass=69±8kg (M), 54±7kg (F) M:F=10:10	Step up Step down	Different type	Forward step up: 43.6±2.3N/kg Lateral step up: 44.1±3.4N/kg Forward step down: 51.1±2.7N/kg
<b>Sit/Stand</b>					
Van Rossom 2018 [84]	Healthy individuals (n=15)	age=31±6yrs BMI=22±2kg/m <sup>2</sup> M:F=8:7	Sit down  Stand up		2.4±0.8BW  2.2±0.3BW
<b>Jumping</b>					
Sinclair 2015 [73]	Healthy males (n=10)	age=22±5yrs mass=68±6kg M:F=10:0	Depth jumping	Different shoes	Minimalist: 8.6±1.7BW Conventional: 10.8±1.8BW
<b>Hop</b>					
Ristow 2020 [67]	Healthy females (n=25)	age=22±2yrs mass=67±10kg M:F= 0:25	Hop	Different cadence	50 hops/min: 8.11±1.29BW 100 hops/min: 8.60±1.47BW
Van Rossom 2018 [84]	Healthy individuals (n=15)	age=31±6yrs BMI=22±2kg/m <sup>2</sup> M:F=8:7	Hop		Hop push off: 5.6±1.2BW Hop weight acceptance: 4.5±1.7BW

*Note.* Peak (or as indicated average) patellofemoral joint reaction force data are presented as mean±standard deviation or mean [95% confidence interval], all walking and running speeds converted to meters per second.

Abbreviations: PFP, patellofemoral pain; PF OA, patellofemoral osteoarthritis; M, males; F, Females; NR, not reported; BW, body weight; RPM, revolutions per minute; BMP, beats per minute; N, Newton; kg, kilogram; yrs, years; m, meter; m/s, meters per second ‡ cross-sectional studies comparing cases and controls

\*Costigan 2002 [41]— We believe stride cadence and velocity values are inverted in Table 2 in the paper. The value reported in the velocity column is 40.78m/s