

Table S1 Velocity parameters of the barbell-mounted Apple Watch in comparison to Vicon as criterion: Calibration equation parameters with confidence limits (in bracket), Standard Error of Estimate (SEE) and Correlation Coefficient (r). Slope, Intercept and SEE were calculated using OLP regression as outlined in the method section.

Apple Watch Barbell					
Device	Velocity zone	Slope	Intercept	SEE (ms ⁻¹ , %)	Pearson's r
V mean	slow (t>=1.25s)	0.949 [0.905, 0.996]	0.03 [0.010, 0.048]	0.040 9.4%	0.911 [0.889, 0.929]
	fast (t<1.25s)	1.023 [0.984, 1.065]	0.002 [-0.029, 0.032]	0.055 7.0%	0.940 [0.925, 0.952]
	total	1.022 [1.004, 1.041]	0.001 [-0.010, 0.012]	0.049 8.1%	0.976 [0.971, 0.979]
V peak	slow (t>=1.25s)	1.309 [1.260, 1.359]	-0.140 [-0.186, -0.096]	0.077 7.2%	0.947 [0.933, 0.957]
	fast (t<1.25s)	1.117 [1.066, 1.169]	0.000 [-0.071, 0.067]	0.101 6.7%	0.917 [0.897, 0.934]
	total	1.112 [1.087, 1.138]	0.023 [-0.006, 0.052]	0.092 7.2%	0.959 [0.952, 0.965]
V prop	slow (t>=1.25s)	0.959 [0.912, 1.008]	0.027 [0.007, 0.045]	0.04 10%	0.903 [0.879, 0.922]
	fast (t<1.25s)	1.053 [1.015, 1.092]	-0.01 [-0.039, 0.018]	0.055 7.1%	0.949 [0.936, 0.959]
	total	1.045 [1.027, 1.064]	-0.006 [-0.016, 0.004]	0.05 8.3%	0.977 [0.973, 0.981]