

Table S1. Pearson’s correlation coefficients (ρ), root mean square error (RMSE) and relative RMSE (rRMSE) of ground reaction forces (GRFs), moments (GRMs), and joint torques during normal-speed, fast-speed (approximately +20 % of the normal-speed), and slow-speed (approximately -20 % of the normal-speed). The average and standard deviation (SD) for all participants are displayed, with magnitudes normalized to body mass of participants.

Gait speed	Normal			Fast (+20 %)			Slow (-20 %)		
	ρ (SD)	RMSE (SD) [N/kg or N·m/kg]	rRMSE (SD) [%]	ρ (SD)	RMSE (SD) [N/kg or N·m/kg]	rRMSE (SD) [%]	ρ (SD)	RMSE (SD) [N/kg or N·m/kg]	rRMSE (SD) [%]
GRF									
Anterior	0.901 (0.087)	0.427 (0.135)	11.4 (3.9)	0.888 (0.120)	0.551 (0.180)	12.6 (5.0)	0.910 (0.062)	0.356 (0.107)	10.6 (3.4)
Medial	0.813 (0.092)	0.164 (0.029)	17.0 (3.6)	0.776 (0.159)	0.183 (0.034)	17.6 (3.9)	0.748 (0.160)	0.161 (0.027)	18.4 (3.6)
Vertical	0.945 (0.068)	1.422 (0.678)	11.6 (5.4)	0.931 (0.105)	1.614 (0.794)	12.2 (6.0)	0.953 (0.062)	1.258 (0.678)	10.9 (6.2)
GRM									
Frontal	0.796 (0.154)	0.066 (0.028)	19.5 (7.1)	0.753 (0.169)	0.098 (0.056)	23.3 (10.9)	0.790 (0.164)	0.078 (0.049)	21.7 (13.2)
Sagittal	0.906 (0.131)	0.211 (0.080)	13.9 (7.9)	0.910 (0.141)	0.210 (0.088)	12.5 (7.4)	0.856 (0.311)	0.257 (0.336)	14.9 (13.6)
Transverse	0.854 (0.144)	0.018 (0.007)	13.5 (5.4)	0.823 (0.200)	0.023 (0.009)	15.0 (6.4)	0.783 (0.316)	0.020 (0.018)	13.9 (7.9)
Hip									
Frontal	0.897 (0.056)	0.168 (0.046)	14.5 (3.4)	0.866 (0.077)	0.202 (0.065)	15.7 (4.2)	0.914 (0.063)	0.158 (0.042)	13.9 (4.0)
Transverse	0.915 (0.038)	0.032 (0.007)	11.3 (2.6)	0.875 (0.133)	0.046 (0.019)	13.0 (7.1)	0.902 (0.052)	0.032 (0.008)	12.6 (3.2)
Sagittal	0.798 (0.076)	0.307 (0.095)	15.0 (2.5)	0.825 (0.082)	0.416 (0.157)	15.1 (4.1)	0.814 (0.068)	0.219 (0.055)	15.0 (2.7)
Knee									
Frontal	0.878 (0.091)	0.054 (0.023)	16.3 (6.4)	0.839 (0.121)	0.076 (0.047)	19.3 (7.4)	0.876 (0.071)	0.059 (0.021)	18.8 (5.7)
Transverse	0.860 (0.120)	0.040 (0.016)	18.4 (7.0)	0.817 (0.209)	0.060 (0.048)	20.5 (9.4)	0.870 (0.123)	0.040 (0.019)	18.6 (7.2)
Sagittal	0.759 (0.084)	0.187 (0.053)	18.3 (3.7)	0.802 (0.083)	0.215 (0.047)	16.3 (3.5)	0.760 (0.148)	0.160 (0.044)	17.9 (5.9)
Ankle									
Frontal	0.750 (0.245)	0.039 (0.016)	22.1 (7.2)	0.725 (0.214)	0.057 (0.040)	24.0 (9.3)	0.809 (0.121)	0.042 (0.018)	23.0 (7.1)
Transverse	0.855 (0.135)	0.053 (0.024)	17.9 (6.9)	0.814 (0.206)	0.078 (0.056)	21.0 (10.4)	0.873 (0.122)	0.056 (0.025)	18.5 (7.4)
Sagittal	0.938 (0.123)	0.186 (0.096)	10.8 (8.5)	0.941 (0.137)	0.177 (0.115)	9.5 (9.3)	0.941 (0.104)	0.170 (0.090)	10.4 (8.8)