S1 Table. Slope and goodness of fit (Rsq) of line to relevant joint kinematics, kinetics and powers during the stance phase of gait. AFO stiffness was varied from $1 - 7$ Nm/deg. From left to right: slope/Rsq of the line fitted to the forward simulation result, mean of the slope/Rsq of the lines fitted to the bilaterally affected patients' results, standard deviation (SD) of the slope/Rsq of the lines fitted to the bilaterally affected patients' result, difference between the simulation slopes and the mean of the experimental slopes divided by the standard deviation of the experimental slopes. Negative and positive directions are defined the same as in Fig 2. Negative slope means change into absorption direction by ankle/AFO powers, change into internal dorsiflexion moment direction by ankle/AFO moments, change into plantarflexion angle direction by ankle angles, change into knee extension direction by knee angles, and change into knee flexion moment direction by knee moments.

		Sim.	Exp.	Exp. SD	Diff. (in SD)
peak total ankle pow.	slope (W/kg per 1Nm/deg)	-0.147	-0.103	0.070	**0.631**
	Rsq	0.828	0.611	0.285	
peak AFO pow.	slope (W/kg per 1Nm/deg)	0.030	-0.007	0.058	**0.633**
	Rsq	0.782	0.404	0.349	
peak biol. ankle pow.	slope (W/kg per 1Nm/deg)	-0.112	-0.091	0.074	**0.289**
	Rsq	0.675	0.517	0.366	
peak total ankle mom.	slope (Nm/kg per 1Nm/deg)	0.032	0.000	0.027	**1.180**
	Rsq	0.794	0.317	0.258	
peak AFO mom.	slope (Nm/kg per 1Nm/deg)	0.085	0.043	0.036	**1.152**
	Rsq	0.932	0.663	0.306	
peak biol. ankle mom.	slope (Nm/kg per 1Nm/deg)	-0.043	-0.029	0.028	**0.469**
	Rsq	0.881	0.353	0.351	
peak ankle angle	slope (deg per 1Nm/deg)	-1.265	-1.124	0.765	**0.184**
	Rsq	0.921	0.712	0.264	
peak knee angle	slope (deg per 1Nm/deg)	-0.601	-0.279	0.670	**0.480**
	Rsq	0.740	0.386	0.326	
peak knee mom.	slope (Nm/kg per 1Nm/deg)	0.004	-0.013	0.025	**0.666**
	Rsq	0.153	0.404	0.305	