

Supplementary material

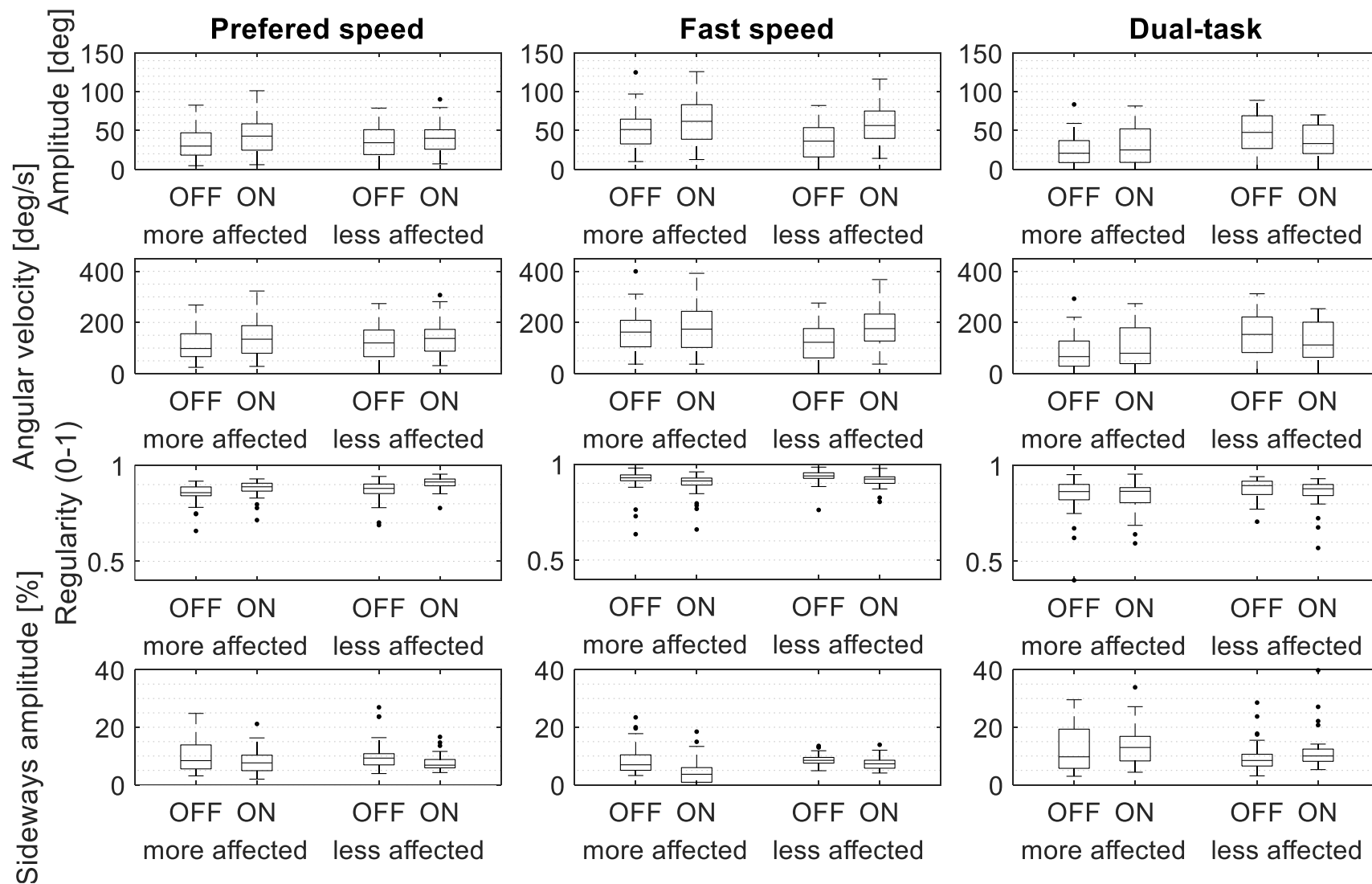
Supplementary Table 1. Results from the Wilcoxon signed rank test to analyse the effect of dopaminergic medication on arm swing as well as the difference with controls

	Preferred						Fast						Dual-task					
	OFF-ON		OFF-Controls		ON-Controls		OFF-ON		OFF-Controls		ON-Controls	OFF-ON		OFF-Controls		ON-Controls		
n	43		43		43		43		43		43		36		36		36	
	Z	P	Z	P	Z	P	Z	P	Z	P	Z	P	Z	P	Z	P	Z	P
Main amplitude	-	0.015	-	0.405	1.04	0.299	-	<0.001	-	0.003	2.86	0.004	0.56	0.649	-	0.167	-	0.116
	2.44		0.83				5.69		2.96						1.38		1.57	
Peak angular velocity	-	0.032	-	0.340	0.74	0.461	-	<0.001	-	0.008	2.06	0.039	0.14	0.888	-	0.285	-	0.258
	2.15		0.95				5.71		2.64						1.07		1.13	
Asymmetry	3.72	<0.001	2.61	0.009	0.39	0.697	-	0.005	-	<0.001	-	0.002	2.24	0.025	2.78	0.005	0.20	0.845
							2.78		4.26		3.12							
Coordination	-	0.158	0.31	0.313	0.52	0.600	-	<0.001	-	0.045	3.87	<0.001	-	0.313	-	0.008	-	0.007
	1.41						5.45		2.00				1.01		2.65		2.72	
Regularity	-	<0.001	-	<0.001	-	<0.001	-	0.952	-	<0.001	-	<0.001	1.87	0.062	0.83	0.405	-	0.826
	3.47		4.41		3.67		0.06		3.85		3.44						0.22	
Sideways amplitude	2.50	0.012	0.81	0.419	-	0.546	5.49	<0.001	5.52	<0.001	-	0.011	-	0.004	-	0.167	0.97	0.330
					0.60						2.54		2.86		1.38			

Supplementary Table 2. The results of the repeated measures ANOVA that compared the dopaminergic medication responsiveness per walking condition

	Repeated Measures ANOVA			Post hoc testing					
	<i>df</i>	<i>F</i>	<i>P</i>	pref-fast		pref- dual		fast-dual	
				<i>t</i>	<i>P</i>	<i>t</i>	<i>P</i>	<i>t</i>	<i>P</i>
Main amplitude	2	42.72	<0.001	-6.36	<0.001	2.63	0.032	8.99	<0.001
Peak angular velocity	2	24.51	<0.001	-4.74	<0.001	2.09	0.120	6.83	<0.001
Asymmetry	1.62	12.78	<0.001	-3.52	0.003	1.38	0.521	4.90	<0.001
Coordination	1.58	11.61	<0.001	-4.06	<0.001	0.21	1.000	4.27	<0.001
Regularity	1.64	4.23	0.026	1.85	0.206	2.87	0.017	1.02	0.937
Sideways amplitude	1.55	33.99	<0.001	3.73	0.001	-4.50	<0.001	-8.23	<0.001

In bold the significant results. Post hoc testing was performed with Bonferroni correction. df = degrees of freedom; pref = preferred.



Supplementary Figure 1. The arm swing parameters for the more and less affected side during the different medication states and different walking conditions.