

## Supplemental Data

**Table 1.** Quantitative gait measures of 29 PD participants.

	Min	Max	Mean $\pm$ SD	Gait impaired ( <i>n</i> =23) mean $\pm$ SD	Non-gait impaired ( <i>n</i> =6) mean $\pm$ SD	<i>p</i> -value gait- impaired vs. non- gait impaired	FOG+ ( <i>n</i> =12) mean $\pm$ SD	FOG- ( <i>n</i> =17) mean $\pm$ SD	<i>p</i> - value FOG+ vs. FOG-
<b>Stride velocity, cm/s</b>	53.4	175.7	133.3 $\pm$ 25.7	132.1 $\pm$ 27.7	137.8 $\pm$ 17.2	0.64	125.8 $\pm$ 35.3	138.6 $\pm$ 15.0	0.19
<b>Cadence, steps/min</b>	96.7	129.5	112.1 $\pm$ 7.9	112.4 $\pm$ 8.1	111.0 $\pm$ 7.8	0.70	112.5 $\pm$ 9.1	111.9 $\pm$ 7.2	0.85
<b>Stride length, cm</b>	66.2	180.0	141.8 $\pm$ 23.3	140.0 $\pm$ 25.2	148.6 $\pm$ 13.7	0.43	132.4 $\pm$ 31.2	148.5 $\pm$ 12.9	0.07
<b>Step time, s</b>	0.46	0.62	0.54 $\pm$ 0.04	0.53 $\pm$ 0.04	0.54 $\pm$ 0.04	0.67	0.54 $\pm$ 0.05	0.54 $\pm$ 0.03	0.90
<b>Usual gait stride time variability</b>	0.81	6.54	2.6 $\pm$ 1.5	2.6 $\pm$ 1.4	2.6 $\pm$ 2.1	0.99	3.3 $\pm$ 1.5	2.1 $\pm$ 1.3	0.04
<b>Double support time, s</b>	0.22	0.48	0.30 $\pm$ 0.06	0.30 $\pm$ 0.06	0.30 $\pm$ 0.06	0.95	0.31 $\pm$ 0.08	0.29 $\pm$ 0.05	0.32

PD: Parkinson's disease, FOG: freezing of gait