

**Table S1.** Dual task walking performance before and after different tDCS followed by treadmill training.

Group	Bilateral tDCS+TT group (n=15)			Cathodal tDCS+TT group (n=15)			Sham tDCS+TT group (n=15)		
	pre	post	<i>p</i> <sup>a</sup>	pre	post	<i>p</i> <sup>a</sup>	pre	post	<i>p</i> <sup>a</sup>
<b>CDTW</b>									
Speed <sub>(cm/sec)</sub>	50.11 (29.35, 74.88)	53.65 (28.58, 75.53)	n.s	39.71 (18.63, 59.48)	49.39 (21.55, 67.10)	<0.001	49.64 (27.00, 60.68)	50.71 (30.73, 69.95)	n.s
Cadence <sub>(step/min)</sub>	76.22 (65.53, 96.63)	78.64 (65.50, 96.95)	n.s	60.87 (38.23, 80.4)	72.18(52.88, 85.10)	0.031	78.49 (58.48, 99.9)	76.24 (57.15, 102.73)	n.s
Step length <sub>(A)(cm)</sub>	40.03 (30.50, 51.53)	43.81 (34.78, 54.01)	n.s	37.67 (30.16,51.49)	38.04 (23.18, 53.08)	n.s	37.92 (29.41, 45.84)	40.76 (30.15, 47.64)	n.s
Step length <sub>(UA)(cm)</sub>	37.24 (27.90, 48.26)	35.17 (23.51, 48.43)	n.s	35.41 (24.71, 50.75)	35.00 (22.36, 43.69)	n.s	32.39 (21.12, 40.68)	34.79 (20.75, 48.85)	n.s
Step time <sub>(A)(sec)</sub>	0.91 (0.67, 1.11)	1.00 (0.68, 1.20)	n.s	1.08 (0.81, 1.54)	0.93 (0.78, 1.31)	n.s	0.99 (0.62, 1.15)	1.11 (0.61, 1.26)	n.s
Step time <sub>(UA)(sec)</sub>	0.77 (0.56, 0.75)	0.69 (0.53, 0.68)	n.s	0.92 (0.66, 1.70)	0.80 (0.62, 0.93)	n.s	0.73 (0.57, 0.73)	0.66 (0.54, 0.77)	n.s
DTC <sub>(%)</sub>	-17.62 (-24.70, -10.98)	-20.68 (-27.51, -11.73)	n.s	-24.05(-38.76, -6.18)	-23.53 (-37.76, -10.45)	n.s	-16.85 (-23.06, -6.64)	-24.75 (-34.03, -12.65)	n.s
<b>MDTW</b>									
Speed <sub>(cm/sec)</sub>	52.45 (30.75, 78.45)	58.83 (36.68, 89.13)	n.s	47.19 (29.25, 59.30)	56.25 (33.15, 74.48)	0.001	42.78 (25.58, 58.65)	50.44 (30.60, 73.30)	<0.001
Cadence <sub>(step/min)</sub>	76.02 (65.83, 90.53)	79.39 (62.43, 94.80)	n.s	75.26 (64.40, 92.53)	80.53 (71.30, 88.90)	0.007	77.06 (62.33, 99.3)	82.86 (65.20, 104.60)	0.002
Step length <sub>(A)(cm)</sub>	39.96 (29.81, 51.41)	45.48 (35.07, 53.95)	n.s	37.94 (28.11,49.07)	42.01 (25.21, 56.34)	<0.001	35.69 (24.30, 42.46)	38.80 (29.10, 43.55)	<0.001
Step length <sub>(UA)(cm)</sub>	32.68 (21.66, 44.26)	35.74 (24.46, 49.57)	0.007	33.52 (27.64, 43.93)	36.77 (26.08, 48.72)	0.026	28.93 (19.27, 40.51)	30.76 (20.13, 44.77)	0.014
Step time <sub>(A)(sec)</sub>	0.91 (0.74, 1.06)	0.91 (0.64, 1.13)	n.s	0.94 (0.71, 1.06)	0.89 (0.74, 0.95)	0.036	1.05 (0.65, 1.20)	0.98 (0.65, 1.15)	n.s
Step time <sub>(UA)(sec)</sub>	0.66 (0.56, 0.72)	0.64 (0.52, 0.73)	n.s	0.76 (0.61, 0.87)	0.69 (0.60, 0.71)	0.020	0.72 (0.57, 0.79)	0.62 (0.53, 0.73)	0.006
DTC <sub>(%)</sub>	-16.26 (-26.69, -8.95)	-12.24 (-22.70, -5.06)	n.s	-9.90 (-19.74, 4.98)	-11.37 (-19.17, -0.51)	n.s	-22.03(-31.77, -10.92)	-21.21 (-35.34, -11.94)	n.s

Data are presented as the median (Interquartile range). (The Shapiro-Wilk test was used to determine the values are not normally distributed.)

Abbreviations: CDTW, cognitive dual task walking; DTC, dual task cost; MDTW, motor dual task walking; ST, step time; SL, step length;.

<sup>a</sup> The pairwise comparisons of the GEE analyses with post hoc Bonferroni correction.

**Table S2.** Walking performance before and after different tDCS followed by treadmill training.

Group	Bilateral tDCS+TT group (n=15)			Cathodal tDCS+TT group (n=15)			Sham tDCS+TT group (n=15)		
	pre	post	<i>p</i> <sup>a</sup>	pre	post	<i>p</i> <sup>a</sup>	pre	post	<i>p</i> <sup>a</sup>
Speed <sub>(cm/sec)</sub>	60.88 (34.40, 92.18)	64.32 (41.08, 94.23)	n.s	53.29 (27.83, 69.18)	63.42 (37.00, 86.75)	<0.001	57.30 (28.60, 67.80)	64.21 (34.93, 86.83)	0.024
Cadence <sub>(step/min)</sub>	86.97(69.55, 102.47)	86.86 (69.20, 104.38)	n.s	78.97 (56.93, 100.10)	86.26(73.98, 101.10)	0.003	87.74 (69.75, 104.28)	89.21(69.13, 111.13)	n.s
Step length <sub>(A)(cm)</sub>	46.20(32.67, 57.62)	46.94 (37.87, 58.04)	n.s	39.03 (26.04, 50.81)	44.44 (28.61, 56.91)	<0.001	43.63 (30.48, 54.43)	44.89 (35.08, 54.18)	n.s
Step length <sub>(UA)(cm)</sub>	39.73(31.02, 49.78)	40.46 (28.03, 52.92)	n.s	36.81 (27.75, 48.95)	39.03(26.04, 50.81)	n.s	35.46 (26.73, 52.66)	37.43(26.73, 52.66)	n.s
Step time <sub>(A)(sec)</sub>	0.88 (0.65, 1.05)	0.92 (0.62, 1.02)	n.s	0.91 (0.67, 1.15)	0.83 (0.64, 0.94)	n.s	0.88 (0.59, 1.04)	0.85 (0.63, 1.00)	n.s
Step time <sub>(UA)(sec)</sub>	0.58 (0.52, 0.63)	0.67 (0.50, 0.69)	n.s	0.74 (0.57, 0.85)	0.65 (0.54, 0.69)	0.004	0.61 (0.50, 0.72)	0.60 (0.50, 0.70)	n.s

Data are presented as the median (Interquartile range). (The Shapiro-Wilk test was used to determine the values are not normally distributed.)

Abbreviations: ST, step time; SL, step length

<sup>a</sup> The pairwise comparisons of the GEE analyses with post hoc Bonferroni correction.

**Table S3.** Contralesional cortical activity and Fugl Meyer assessment before and after different tDCS followed by treadmill training.

Group	Bilateral tDCS+TT group (n=15)			Cathodal tDCS+TT group (n=15)			Sham tDCS+TT group (n=15)		
	pre	post	<i>p</i> <sup>a</sup>	pre	post	<i>p</i> <sup>a</sup>	pre	post	<i>p</i> <sup>a</sup>
<b>TMS</b>									
RMT (%)	61.00 (60.75, 64.25)	61.30 (60.25, 64.00)	n.s	53.07 (44.00, 56.25)	55.93(52.00, 61.25)	0.012	60.36 (52.25, 66.25)	61.50 (52.25, 68.25)	n.s
MEP ( <i>μ</i> V)	495.57(272.29, 593.46)	394.99(290.05, 524.05)	n.s	664.83(395.51, 896.27)	439.07(233.90, 590.83)	<0.001	413.80(243.92, 543.61)	350.48(185.58, 468.80)	n.s
SICI (%)	53.84 (51.92, 65.98)	46.70 (38.94, 53.57)	n.s	55.42 (42.39, 66.64)	55.86 (46.71, 66.49)	n.s	58.92 (46.72, 71.37)	54.38 (39.52, 64.22)	n.s
SP (ms)	131.68(121.75, 140.01)	135.92 (125.38, 145.65)	n.s	128.51(114.85, 136.02)	137.51(123.40, 147.57)	<0.001	129.50(108.94, 145.22)	130.76(112.38, 147.91)	0.013
<b>FMA-LE</b>	21.43 (19.00, 25.00)	21.86 (19.00, 25.00)	n.s	23.36 (19.75, 27.00)	24.07 (19.75, 28.00)	0.002	24.71 (23.00, 27.25)	24.86 (23.00, 27.25)	n.s

Data are presented as the median (Interquartile range). (The Shapiro-Wilk test was used to determine the values are not normally distributed.)

Abbreviations: FMA-LE, fugl meyer assessment-lower extremity; MEP, motor evoked potentials; RMT, resting motor threshold; SICI, short interval intracortical inhibition; SP, silent period.

<sup>a</sup> The pairwise comparisons of the GEE model analyses with post hoc Bonferroni correction.