Supplementary Table 1: Exercise parameters, physiological responses and perceived exertion at minute 6, 12 and 18 of 20-minute conventional robot-assisted treadmill walking

	Conventional Robot-Assisted Treadmill Walking (n=12[b])								
	Minute 6			Minute 12			Minute 18		
Outcome[a]	M	SD	95% CI	M	SD	95% CI	M	SD	95% CI
Robotic Assistance (%)	76.7	32.3	[64.4, 86.9]	68.3	21.0	[61.7, 75.0]	65.8	19.5	[59.7, 72.0]
Body Weight Support (%)	48.7	19.3	[42.6, 54.9]	45.5	13.6	[41.1, 49.8]	49.1	34.8	[38.0, 60.1]
Walking Speed (m/s)	0.53	0.11	[0.53, 0.67]	0.58	0.11	[0.58, 0.67]	0.58	0.14	[0.58, 0.69]
Gross VO_2 (mL/kg/min)	5.82	1.58	[4.82, 6.83]	5.95	1.61	[4.93, 6.98]	5.87	1.19	[5.11, 6.62]
Net VO_2 (mL/kg/min)	2.63	1.75	[1.52, 3.74]	2.76	1.74	[1.66, 3.87]	2.67	1.33	[1.83, 3.52]
Gross VCO_2 (mL/kg/min)	4.80	1.40	[3.91, 5.69]	5.02	1.53	[4.05, 5.99]	5.02	1.18	[4.27, 5.77]
Net VCO_2 (mL/kg/min)	2.10	1.56	[1.11, 3.09]	2.32	1.65	[1.27, 3.37]	2.32	1.27	[1.51, 3.13]
Gross OC (mL/kg/m)	0.19	0.07	[0.14, 0.23]	0.18	0.07	[0.14, 0.22]	0.17	0.04	[0.14, 0.20]
Net OC (mL/kg/m)	0.09	0.07	[0.04, 0.13]	0.08	0.06	[0.04, 0.12]	0.08	0.04	[0.05, 0.10]
Gross RER (no unit)	0.82	0.04	[0.79, 0.85]	0.84	0.04	[0.81, 0.87]	0.85	0.06	[0.81, 0.89]
Net RER (no unit)	-0.02	0.06	[-0.06, 0.02]	0.00	0.08	[-0.05, 0.05]	0.01	0.08	[-0.04, 0.07]
Gross HR (beats/min)	86	13	[77, 95]	90	22	[75, 105]	87	13	[79, 96]
Net HR (beats/min)	13	12	[5, 21]	17	22	[2, 31]	14	12	[6, 22]
Gross VE (L/min)	16.84	4.83	[13.78, 19.91]	17.88	7.28	[13.25, 22.50]	17.89	6.15	[13.98, 21.80]
Net VE (L/min)	6.17	4.06	[3.59, 8.75]	7.20	6.30	[3.20, 11.20]	7.22	5.06	[4.01, 10.43]
Gross BF (breaths/min)	25.8	4.8	[22.7, 28.8]	26.6	6.9	[22.2, 31.0]	25.9	6.2	[22.0, 29.8]
Net BF (breaths/min)	6.7	3.5	[4.5, 8.9]	7.5	5.9	[3.8, 11.3]	6.8	4.8	[3.8, 9.9]
Gross RPE (6-20)	8.8	2.1	[7.4, 10.1]	10.3	3.0	[8.4, 12.3]	11.0	3.2	[8.9, 13.2]
Net RPE (0-14)	2.0	1.7	[0.9, 3.1]	3.6	2.4	[2.0, 5.1]	4.2	2.6	[2.5, 5.9]
Percentage HR_{max} (%)	59.9	10.2	[53.0, 66.8]	62.3	14.1	[52.8, 71.4]	60.6	10.2	[53.7, 67.4]
Percentage HRR (%)	16.7	13.3	[7.8, 25.7]	21.1	24.1	[4.9, 37.3]	18.6	12.6	[10.1, 27.1]

Abbreviations: BF, breathing frequency; HR, heart rate; HR_{max}, predicted maximum heart rate; HRR, heart rate reserve; M, mean; OC, oxygen cost; RER, respiratory exchange ratio; RPE, rating of perceived exertion; VCO_2, carbon dioxide production; VE, minute ventilation; VO_2, oxygen consumption.
[a] Net values were obtained by subtracting resting values (median of minute 5) from gross values.
[b] HR, HRR and HR_{max} of 1 subject missing due to technical issues with heartrate belt (n=11)

Supplementary Table 2: Gross and net physiological responses and perceived exertion at minute 6, 12 and 18 of 20-minute robot-assisted treadmill walking with 60% and 100% robotic assistance

| | 100% Robotic Assistance | | | | | | | | | 60% Robotic Assistance | | | | | | | | |
| | Minute 6 (n=10) | | | Minute 12 (n=10) | | | Minute 18 (n=10) | | | Minute 6 (n=10) | | | Minute 12 (n=10) | | | Minute 18 (n=9[b]) | | |
Outcome[a]	M	SD	95% CI	M	SD	95% CI	M	SD	95% CI	M	SD	95% CI	M	SD	95% CI	M	SD	95% CI
Gross VO_2 (mL/kg/min)	5,72	1,05	[4.97, 6.47]	5,75	1,12	[4.95, 6.55]	5,79	1,11	[5.00, 6.58]	5,22	0,88	[4.59, 5.84]	5,36	0,93	[4.70, 6.03]	5,40	0,81	[4.78, 6.03]
Net VO_2 (mL/kg/min)	2,68	0,74	[2.16, 3.21]	2,72	0,85	[2.11, 3.32]	2,75	0,87	[2.13, 3.37]	2,10	0,81	[1.52, 2.68]	2,24	0,85	[1.64, 2.85]	2,31	0,77	[1.73, 2.90]
Gross VCO_2 (mL/kg/min)	4,61	0,93	[3.94, 5.28]	4,74	0,92	[4.08, 5.40]	4,81	0,97	[4.11, 5.50]	4,29	0,75	[3.75, 4.82]	4,36	0,78	[3.80, 4.92]	4,48	0,72	[3.92, 5.03]
Net VCO_2 (mL/kg/min)	2,11	0,59	[1.69, 2.53]	2,24	0,64	[1.78, 2.69]	2,31	0,71	[1.80, 2.81]	1,76	0,75	[1.22, 2.30]	1,83	0,79	[1.27, 2.40]	1,97	0,71	[1.42, 2.51]
Gross OC (mL/kg/m)	0.16	0.03	[0.14, 0.18]	0.16	0.03	[0.13, 0.18]	0.16	0.03	[0.14, 0.18]	0.14	0.03	[0.12, 0.16]	0.15	0.03	[0.13, 0.17]	0.15	0.03	[0.13, 0.17]
Net OC (mL/kg/m)	0.07	0.02	[0.06, 0.09]	0.08	0.02	[0.06, 0.09]	0.08	0.03	[0.06, 0.09]	0.06	0.02	[0.04, 0.08]	0.06	0.02	[0.04, 0.08]	0.06	0.02	[0.05, 0.08]
Gross RER (no unit)	0,80	0,04	[0.78, 0.83]	0,82	0,02	[0.81, 0.84]	0,83	0,04	[0.80, 0.86]	0,82	0,04	[0.79, 0.85]	0,81	0,04	[0.78, 0.84]	0,83	0,03	[0.80, 0.85]
Net RER (no unit)	-0,02	0,03	[-0.04, 0.00]	0,00	0,02	[-0.01, 0.02]	0,01	0,02	[-0.01, 0.02]	0,01	0,04	[-0.02, 0.04]	0,00	0,04	[-0.03, 0.03]	0,02	0,03	[-0.01, 0.04]
Gross HR (beats/min)	83	11	[75, 90]	83	10	[76, 90]	85	10	[78, 92]	83	10	[76, 89]	83	10	[76, 90]	84	11	[75, 92]
Net HR (beats/min)	10	6	[5, 14]	10	6	[6, 14]	11	6	[7, 16]	8	6	[4, 12]	8	5	[5, 12]	9	6	[4, 14]
Gross VE (L/min)	15,74	2,58	[13.89, 17.59]	15,56	2,79	[13.56, 17.55]	16,01	2,75	[14.05, 17.98]	14,77	2,81	[12.77, 16.78]	14,72	2,92	[12.63, 16.81]	15,54	3,23	[13.06, 18.02]
Net VE (L/min)	6,91	1,30	[5.98, 7.84]	6,73	1,74	[5.48, 7.98]	7,19	1,65	[6.01, 8.37]	5,62	1,63	[4.45, 6.79]	5,57	1,60	[4.42, 6.71]	6,29	1,82	[4.90, 7.69]
Gross BF (breaths/min)	25,7	4,8	[22.3, 29.2]	25,4	5,6	[21.4, 29.4]	25,8	5,4	[22.0, 29.7]	25,6	4,0	[22.7, 28.5]	25,1	4,4	[22.0, 28.3]	25,6	5,4	[21.5, 29.8]
Net BF (breaths/min)	6,9	2,0	[5.44, 8.32]	6,6	2,8	[4.59, 8.56]	7,0	2,8	[4.94, 9.00]	6,9	2,4	[5.2, 8.6]	6,4	2,1	[4.9, 7.9]	7,1	2,7	[5.0, 9.2]
Gross RPE (6-20)	7,7	1,3	[6.8, 8.6]	8,4	1,4	[7.4, 9.4]	8,9	2,0	[7.5, 10.4]	8,7	2,1	[7.2, 10.2]	9,4	2,6	[7.5, 11.3]	10,5	3,1	[8.3, 12.7]
Net RPE (0-14)	1,5	1,0	[0.8, 2.2]	2,2	1,2	[1.3, 3.1]	2,7	1,9	[1.4, 4.1]	2,5	2,0	[1.1, 3.9]	3,2	2,7	[1.3, 5.1]	4,3	3,2	[2.0, 6.6]

Abbreviations: BF, breathing frequency; HR, heart rate; HR_{max}, predicted maximum heart rate; HRR, heart rate reserve; M, mean; OC, oxygen cost; RER, respiratory exchange ratio; RPE, rating of perceived exertion; VCO_2, carbon dioxide production; VE, minute ventilation; VO_2, oxygen consumption.

[a] Net values were obtained by subtracting resting values (median of minute 5) from gross values.

[b] Data of minute 17 to 20 of 1 subject missing due to technical issues with respiratory gas analysis system