Supplementary Table 1. Subject characteristics of able-bodied adults

ID	Age (y)	Sex (M/F)	Body mass (kg)	Height (mm)	Leg Length (mm)	ID	Age (y)	Sex (M/F)	Body mass (kg)	Height (mm)	Leg Length (mm)
SUBJ1	86	M	64	1580	850	SUBJ52	58	M	79	1715	920
SUBJ2	85	F	78	1500	840	SUBJ53	58	M	97	1835	990
SUBJ3	85	F	69	1510	880	SUBJ54	57	F	58	1640	870
SUBJ4	84	M	70	1625	950	SUBJ55	57	F	62	1580	870
SUBJ5	84	F	50	1450	810	SUBJ56	55	F	58	1635	820
SUBJ6	83	M	80	1695	970	SUBJ57	55	M	67	1685	880
SUBJ7	82	F	62	1555	840	SUBJ58	55	M	66	1795	930
SUBJ8	82	F	72	1600	820	SUBJ59	54	F	57	1675	860
SUBJ9	82	M	87	1710	920	SUBJ60	53	M	90	1780	940
SUBJ10	81	M	73	1620	870	SUBJ61	53	M	89	1770	960
SUBJ11	81	M	76	1700	910	SUBJ62	53	M	69	1765	900
SUBJ12	80	M	101	1890	1070	SUBJ63	53	F	72	1655	880
SUBJ13	80	F	70	1540	870	SUBJ64	52	F	53	1580	830
SUBJ14	80	M	87	1755	920	SUBJ65	52	F	62	1560	840
SUBJ15	83	F	74	1530	820	SUBJ66	55	M	86	1755	910
SUBJ16	79	F	74	1610	860	SUBJ67	55	F	48	1565	831
SUBJ17	77	M	86	1750	950	SUBJ68	51	F	57	1630	840
SUBJ18	77	M	90	1770	940	SUBJ69	50	F	51	1685	890
SUBJ19	77	M	88	1830	1030	SUBJ70	54	F	67	1660	890
SUBJ20	76	M	79	1750	970	SUBJ71	50	M	80	1885	1050
SUBJ21	75	F	78	1420	660	SUBJ72	49	M	81	1670	860
SUBJ22	79	M	83	1645	898	SUBJ73	49	F	69	1680	900
SUBJ23	75	M	89	1665	880	SUBJ74	49	M	80	1815	950
SUBJ24	74	F	72	1585	850	SUBJ75	48	F	67	1600	860
SUBJ25	74	F	83	1545	810	SUBJ76	48	M	97	1780	960
SUBJ26	73	F	64	1605	860	SUBJ77	48	M	80	1880	990
SUBJ27	73	F	61	1595	870	SUBJ78	51	F	64	1605	870
SUBJ28	72	F	69	1605	860	SUBJ79	46	F	48	1525	800
SUBJ29	72	F	75	1560	880	SUBJ80	50	M	72	1730	875
SUBJ30	72	F	61	1585	870	SUBJ81	45	M	77	1750	930
SUBJ31	71	M	65	1610	830	SUBJ82	45	F	70	1915	830
SUBJ32	71	M	83	1725	950	SUBJ83	44	F	55	1475	760
SUBJ33	70	M	82	1795	995	SUBJ84	44	F	70	1585	850
SUBJ34	69	M	76	1655	890	SUBJ85	44	M	79	1675	910
SUBJ35	67	M	92	1830	970	SUBJ86	44	F	81	1655	880
SUBJ36	67	M	74	1690	930	SUBJ87	44	M	100	1775	950
SUBJ37	66	F	55	1615	860	SUBJ88	44	F	94	1750	930
SUBJ38	66	F	57	1635	870	SUBJ89	43	M	74	1755	950
SUBJ39	65	F	69	1645	890	SUBJ90	42	F	50	1535	780
SUBJ40	65	M	95	1750	930	SUBJ91	41	F	58	1535	800
SUBJ41	64	F	75	1580	900	SUBJ92	40	F	109	1720	880
SUBJ42	64	F	82	1550	840	SUBJ93	39	F	73	1665	900
SUBJ43	62	M	95	1770	960	SUBJ94	42	M	79	1725	935
SUBJ44	62	F	80	1565	860	SUBJ95	37	M	103	1920	1020
SUBJ45	61	F	79	1615	880	SUBJ96	36	M	157	1830	950
SUBJ46	60	F	66	1580	860	SUBJ97	36	M	65	1735	950
SUBJ47	60	M	69	1710	960	SUBJ98	36	M	76	1765	970
SUBJ48	60	M	59	1740	880	SUBJ99	34	F	62	1700	940
SUBJ49	60	F	85	1645	910	SUBJ100	34	M	78	1820	980
SUBJ50	59	F	62	1515	800	SUBJ101	34	F	60	1715	900
SUBJ51	59	F	64	1660	870	SUBJ102	33	F	59	1575	830

SUBJ103	33	F	70	1605	890	SUBJ121	25	F	65	1705	900
SUBJ104	33	M	84	1795	920	SUBJ122	25	F	67	1645	880
SUBJ105	33	M	96	1910	998	SUBJ123	24	F	63	1735	930
SUBJ106	32	F	68	1775	950	SUBJ124	24	M	76	1765	910
SUBJ107	32	M	77	1780	900	SUBJ125	24	M	82	1850	1030
SUBJ108	36	F	71	1645	890	SUBJ126	24	M	84	1840	1020
SUBJ109	31	F	58	1675	880	SUBJ127	28	M	102	1710	900
SUBJ110	30	F	65	1670	870	SUBJ128	24	F	56	1580	850
SUBJ111	29	M	115	1730	940	SUBJ129	25	F	67	1640	885
SUBJ112	28	F	71	1690	940	SUBJ130	21	F	65	1590	820
SUBJ113	27	M	85	1770	930	SUBJ131	21	F	66	1670	880
SUBJ114	27	M	76	1705	900	SUBJ132	24	F	65	1630	850
SUBJ115	27	M	87	1805	960	SUBJ133	23	M	64	1730	910
SUBJ116	30	M	89	1770	955	SUBJ134	23	F	65	1625	915
SUBJ117	26	F	68	1780	920	SUBJ135	22	M	104	1810	970
SUBJ118	30	M	65	1830	975	SUBJ136	22	F	61	1625	830
SUBJ119	30	M	76	1850	1005	SUBJ137	22	F	78	1700	880
SUBJ120	25	F	58	1710	890	SUBJ138	21	M	68	1675	880

ID: identification number, y: years, M: male, F: female, kg: kilograms, mm: millimetre

Supplementary Table 2. Subject characteristics of stroke survivors

ID	Age (y)	Gender (M/F)	Weight (kg)	Height (mm)	Leg Length (mm)	Time post stroke (days)	Lesion location (L/R)	Type of stroke (I/H)	FAC	Tinetti POMA	TIS
TVC03	58	M	67	1710	870	114	L	I	3	23	16
TVC04	77	F	68	1585	880	37	R	I	4	27	19
TVC05	47	F	65	1600	840	104	R	I	2	14	13
TVC06	49	M	106	1755	950	57	R	H	3	21	18
TVC08	71	M	88	1740	880	64	R	I	3	15	17
TVC09	81	M	78	1665	940	139	R	H	4	26	14
TVC10	67	F	52	1500	810	64	R	I	2	21	12
TVC11	55	F	60	1800	960	14	R	I	3	21	18
TVC12	71	M	77	1650	880	62	L	H	3	19	13
TVC13	77	M	83	1800	910	32	R	I	2	18	14
TVC14	73	M	82	1785	970	59	R	I	2	12	13
TVC15	72	M	80	1700	900	18	L	I	5	26	16
TVC16	54	F	58	1610	860	21	R	I	2	11	10
TVC17	70	M	80	1690	900	45	L	I	3	20	17
TVC19	60	M	71	1790	930	60	R	I	3	17	15
TVC20	44	M	59	1720	940	91	L	I	5	28	15
TVC21	50	F	72	1730	930	106	R	I	2	13	15
TVC22	58	F	83	1700	910	46	L	I	3	19	16
TVC23	39	F	70	1670	840	60	R	H	3	16	17
TVC24	77	M	83	1690	850	63	R	I	3	21	15
TVC25	84	F	84	1580	820	31	L	I	4	24	9
TVC26	68	F	64	1650	880	61	L	H	3	15	12
TVC27	69	M	69	1700	890	39	L	I	3	21	14
TVC28	62	M	95	1800	920	26	R	I	2	17	8
TVC29	72	F	58	1700	820	31	L	I	2	7	12
TVC30	72	M	99	1680	810	20	L	I	3	18	8
TVC32	52	M	80	1790	940	25	R	I	3	20	14
TVC33	63	M	85	1890	960	21	L	I	2	14	15
TVC34	80	M	76	1670	880	41	R	I	3	23	15
TVC35	72	M	54	1670	810	24	R	I	2	12	13
TVC36	41	M	65	1660	840	50	R	H	2	10	9
TVC37	72	M	53	1720	880	45	R	I	3	21	12
TVC38	72	M	61	1730	890	65	R	I	2	8	11
TVC39	65	M	86	1790	900	42	L	I	2	13	7
TVC40	19	M	67	1810	940	106	L	H	4	23	17
TVC41	53	F	50	1530	790	90	L	I	3	8	10
TVC42	75	M	54	1720	870	48	R	I	2	13	9
TVC43	84	M	80	1710	900	38	R	I	4	27	13
TVC46	52	M	68	1830	930	31	R	I	5	28	14
TVC47	81	F	62	1630	810	36	L	I	4	28	19
TVC48	75	M	51	1690	824	50	R	I	2	6	13
TVC49	73	M	70	1700	870	36	R	I	3	15	9
TVC51	46	M	81	1640	840	104	R	I	3	22	14
TVC52	62	M	73	1650	870	42	R	I	5	28	18
TVC53	76	M	63	1800	945	53	R	H	3	21	12
TVC54	85	M	65	1800	860	32	R	I	2	12	10
TVC55	75	F	70	1730	850	67	R	I	2	20	14
TVC57	55	M	104	1800	900	26	L	H	4	24	20
TVC58	59	F	76	1640	840	41	R	H	2	25	14
TVC60	46	F	55	1630	850	86	L	H	4	26	18

ID: identification number, y: years, M: male, F: female, kg: kilograms mm: millimetre, L: left, R: right, I: ischeamic, H: hemorrhagic, FAC: Functional Amublation Category, Tinetti POMA: Tinetti Performance Oriented Mobility Test, TIS: Trunk Impairment Scale

Supplementary Table 3. EMG and force plate recordings for able-bodied adults

Legenda – L: left, R; right, FP: force plate, EMG: electromyography, CP: cross plate, (1): trial 1, (2): trial 2, (3): trial 3

ID	EMG	FP 1	FP 2	FP 3	FP 4	ID	EMG	FP 1	FP 2	FP 3	FP 4
SUBJ 1	Yes	R (1) R (2)	L (1) L (2)	X	R (1) R (2)	SUBJ 18	Yes	R (2)	L CP (2) L (3)	X	L CP (2)
SUBJ 2	Yes	R (1) L (2)	L (1) R (2)	X	R (1)	SUBJ 19	Yes	R (1) R (3)	L (1) L (2)	X	R (2)
SUBJ 3	Yes	L (2) L (3)	R (3)	X	L (3)	SUBJ 20	Yes	R (1) R (2) R (3)	L (1) L (2) L (3)	X	R (1) R (2) R (3)
SUBJ 4	Yes	R (1) R (2)	L (2)	X	R (2)	SUBJ 21	No	R (1) L (2)	R (2)	R (4)	L (2) L (4)
SUBJ 5	Yes	R (1) R (2)	L (1) L (2) R (3)	X	R (2) L (3)	SUBJ 22	Yes	R (1) R (2) R (3)	L (1) L (2)	X	R (1) R (2)
SUBJ 6	Yes	L (3)	R (1) R (3)	X	L (1) L (2)	SUBJ 23	No	L (2) R (3)	R (2) L (3)	X	L (2) R (3)
SUBJ 7	Yes	R (3)	L (2) L (3)	X	R (2) R (3)	SUBJ 24	Yes	R (1) R (2) R (3)	L (1) L (2) L (3)	X	R (1) R (2) R (3)
SUBJ 8	Yes	R (1) R (2) R (3)	L (1) L (2) L (3)	X	R (1) R (2) R (3)	SUBJ 25	Yes	R (1) R (2) R (3)	L (1) L (2) L (3)	X	R (1) R (2) R (3)
SUBJ 9	Yes	L CP (2) R (3)	R (1) R CP (2) R CP(3)	L CP (2)	L (1) R CP (2) R CP (3)	SUBJ 26	Yes	R (1) L (2)	L (1) R (2) R (3)	X	L (3)
SUBJ 10	Yes	R (1)	L (2) R (3)	X	X	SUBJ 27	Yes	R (3)	L (3)	X	R (3)
SUBJ 11	Yes	R (1)	R (3)	L (1)	R (1) L (2) L (3)	SUBJ 28	Yes	R (1) R (2) L (3)	L (1) L (2) R (3)	X	R (2) L (3)
SUBJ 12	Yes	L (2) R (3)	R CP (1) R (2)	R CP (1)	L (1)	SUBJ 29	Yes	L (1) L (2) R (3)	R (1)	X	X
SUBJ 13	Yes	L (2) L (3)	R (2) R (3)	X	R (1) L (2) L (3)	SUBJ 30	Yes	L (3)	X	X	R (1) R (2)
SUBJ 14	Yes	R (1) L (3)	L (1)	X	R (1) R (2) R (3)	SUBJ 31	Yes	L (3)	L (1) R (3)	X	R (2)
SUBJ 15	Yes	L (1) R (2) R (3)	R (1) L (2) L (3)	X	L (1) R (2) R (3)	SUBJ 32	Yes	R (2) R (4)	L (2)	X	L (1)
SUBJ 16	Yes	L (2) R (4)	R CP (2) L (4)	X	R CP (2) L (3)	SUBJ 33	Yes	R (2) L (3)	L (2)	X	L (1) R (2)
SUBJ 17	Yes	R (2) R (3)	L (1) L CP (2) L (3)	X	R (1) L CP (2)	SUBJ 34	Yes	R CP (1) R (2) L (3)	L CP (1) L CP (2) R CP (3)	R CP (1)	L CP (1) L CP (2) R CP (3)
SUBJ 35	Yes	R CP (3) L (4)	L (3) R (4)	R CP(3)	R (1)	SUBJ 53	Yes	L CP (1) L CP (2) L (3)	L CP (1) L CP (2) R CP (3)	X	R (1) R (2) R CP (3)
SUBJ 36	Yes	L (2) R (3)	L (1) L CP (3)	X	R (1) L CP (3)	SUBJ 54	Yes	R (1)	L CP (1) L (2)	X	L CP (1)

SUBJ						SUBJ					
								R CP (3)	R CP (3)		L (3)
SUBJ 37	Yes	X	L (1)	X	R (1) R (2) R (3)	**SUBJ 55**	Yes	L (1) L (2) R (3)	R (1) L (3)	X	L (1)
SUBJ 38	Yes	R (1) L (2) R (3)	L (1) L (3)	X	X	**SUBJ 56**	Yes	R (1) R CP (2) L (3) R CP (4)	L CP (1) R CP (2) R CP (3) R CP (4)	X	L CP (1) L (4) R CP (3) L (4)
SUBJ 39	Yes	L (1) R CP (2)	R CP (2)	X	L (2)	**SUBJ 57**	Yes	L (1)	R (1)	X	L (1) R (2) L (3)
SUBJ 40	Yes	R (3)	L (3)	X	R (2) R (3)	**SUBJ 58**	Yes	L CP (2) L CP (3)	L (1) L CP (2) L CP (3)	X	R (3)
SUBJ 41	Yes	L (2) L CP (3)	R (1) R (2) L CP (3)	L CP (3)	L (1) L (2)	**SUBJ 59**	Yes	L (1) L (2)	L (3)	X	R (3)
SUBJ 42	Yes	R (1) L (2)	L (1) R (3)	X	R (1) L (3)	**SUBJ 60**	Yes	R CP (2) R CP (4)	R (1) R CP (2) R (3) R CP (4)	X	L (2) L (4)
SUBJ 43	Yes	R (3)	X	X	L (1) L (2)	**SUBJ 61**	Yes	L (1) L (2)	R (1)	X	L (1)
SUBJ 44	Yes	R CP(4)	R CP (4)	X	R (1) L (4) L (5)	**SUBJ 62**	Yes	L (1) L (2) L (3)	R (3)	X	L (3)
SUBJ 45	Yes	R (1) R (2) R CP (3)	L CP (1) L (2) R CP (3)	X	L CP (1) L (3)	**SUBJ 63**	Yes		L (1) L (2) L (3)	X	R (1) R (3)
SUBJ 46	Yes	R CP (1) R (2)	R CP (1) L CP (2)	X	L (1) L CP (2)	**SUBJ 64**	Yes	L (1) R CP (2) L CP (3)	R CP (1) R CP (2) L CP (3)	X	R CP (1) L (2) R (3)
SUBJ 47	Yes	L (1) R (2) L (3)	R (1) L (2)	X	X	**SUBJ 65**	Yes	L (1)	L (3)	X	R (2)
SUBJ 48	No	R (1) R (3)	L (1) L (3)	X	R (1) R (3)	**SUBJ 66**	Yes	R (1) R (3) L CP (4)	R (1) L CP (3) L CP (4)	X	L (1) L CP (3) R (4)
SUBJ 49	Yes	R (2) L (3)	R (1) L (2) R (3)	X	L (1) R (2) L (3)	**SUBJ 67**	Yes	R (1) R (2) R (3)	L (1) L (2)	X	R (1)
SUBJ 50	Yes	L (1) L (2) L (3)	R (2) R (3)	X	L (2) L (3)	**SUBJ 68**	Yes	R CP (1) R CP (2) R (3)	R CP (1) R CP (2) L CP (3)	X	L (1) L (2) L CP (3)
SUBJ 51	Yes	R CP (1) R (2) L CP (3)	R CP (1) R (2) L CP (3)	X	L (1) R (3)	**SUBJ 69**	Yes	L (2)	L (1) R CP (2) R (3)	X	R (1) R CP (2) L (3)
SUBJ 52	Yes	L (1) R (2) R (3)	L (2) L (3)	X	R (2) R (3)	**SUBJ 70**	Yes	R (1) L (2) L (2)	R (2)	X	X
SUBJ 71	Yes	L CP (1) L CP (2) L (3)	L CP (1) L CP (2) R CP(3)	X	L CP (2) R CP (3)	**SUBJ 89**	Yes	R (1)	L (1)	X	L (2)
SUBJ 72	No	R (1) R (2)	L CP (1) L (2)		L CP (1)	**SUBJ 90**	Yes	R (1) L CP (2)	L CP (1) L CP (2)	X	L CP (1) R (2)

SUBJ						SUBJ					
		R CP (3)	L CP (3)	R CP (3)	L CP (3)			L (3) R CP (4)	R CP (4)		L (4)
SUBJ 73	Yes	L (2) R (3)	L (1) R (2) L (3)	X	L (2) R (3)	SUBJ 91	Yes	R (1) R (2)	L (1) L (2)	X	R (1)
SUBJ 74	No	R (2) R (3)	L CP (2) L CP (3) R (4)	X	R (1) L CP (2) L CP (3) L (4)	SUBJ 92	Yes	R (2)	L (3)	X	R (3)
SUBJ 75	Yes	L (1) L (2) R (3)	R (1) R (2) L (3)	X	L (1) L (2) R (3)	SUBJ 93	Yes	R (3)	L (1)	X	R (1)
SUBJ 76	Yes	R (1) R (2) L (3)	L (1) R (3)	X	X	SUBJ 94	Yes	R (4)	L (4)	X	L (3) R (4)
SUBJ 77	Yes	L (1) L (2)	R (2)	X	X	SUBJ 95	Yes	L (2) R (3)	R (1) L (3)	X	L (1) L (3)
SUBJ 78	Yes	L (2)	L (1) R (2) L (3)	X	R (1) L (2) R (3)	SUBJ 96	Yes	L (1) L CP (2) L (3)	R (1) L CP (2) R CP (3)	X	R (2) R CP (3)
SUBJ 79	Yes	L (1)	R (1) L (2) L (3)	X	R (2) R (3)	SUBJ 97	Yes	L CP (1) L CP (2)	L CP (1) L CP (2) L (3)	X	R (1) R (2)
SUBJ 80	Yes	L (1)	R (2) R (3)	X	L (2)	SUBJ 98	Yes	L (1) L (2) L (3) L (4)	R (1) R (2) R (3) R (4)	X	L (1) L (2) L (4)
SUBJ 81	Yes	X	X	X	R (1) R (2) R (3)	SUBJ 99	Yes	L CP (1) L (2) R (3)	L CP (1) R CP (2) L CP (3)	X	R (1) R CP (2) L CP (3)
SUBJ 82	Yes	X	R (1) L (3) R (4)	X	X	SUBJ 100	Yes	L (1) R (2)	R CP (1) L (2) L (4)	X	R CP (1) R (4)
SUBJ 83	Yes	L CP (3)	R (1) L (2) L CP (3)	X	L (1) R (2) R (3)	SUBJ 101	Yes	R (1) R (3)	L (1) L (2)	X	R (2)
SUBJ 84	Yes	R (1) R (2) R (4)	L (1) L (2) L (4)	X	L(1) R (3) L (4)	SUBJ 102	Yes	L (1)	L CP (2) L (3)	R CP (1) L CP (2)	R CP (1) R (2) R (3)
SUBJ 85	No	R (4) R (3)	L (4)	X	L (1) L (3)	SUBJ 103	Yes	L (2) L (3)	R (2) R (3)	X	L (2)
SUBJ 86	Yes	L (1) R (2) L CP (4)	R CP (1) L CP(2) L CP (4)	X	R CP (1) L CP (2) R (4)	SUBJ 104	Yes	L CP (2)	R (1) L CP (2) L (3)	X	X
SUBJ 87	Yes	R (1) R CP (3)	L (1) L CP (3)	R CP (3)	L (2) L CP (3) R (4)	SUBJ 105	Yes	R (1) R (3)	L (1) L (3)	X	R (3)
SUBJ 88	Yes	R (3)	L (2) L (3)	X	R (2)	SUBJ 106	Yes	L (1) R (3)	R CP (1) L CP (3)	X	R CP (1) R (2) L CP (3)
SUBJ 107	Yes	 R CP (4)	R (2) R (3) R CP (4)	X	R (1) L (4)	SUBJ 123	No	R (1) L (3)	L (1) L (2) R (3)	X	R (1) R (2) L (3)
SUBJ 108	Yes	R (1) L (2) R (3)	L CP (1) R (2) L (2)	X	L CP (1)	SUBJ 124	No	 L (4)	L (1) L (3) R (4)	X	R (1) R (3)

									L (5)		R (5)
SUBJ 109	Yes	R (1) R (2) R (3)	L (1) L (2) L (3)	X	X	**SUBJ 125**	No	R (2)	R (1) L (2) L (4)	X	R (3)
SUBJ 110	Yes	L (3)	L (1) L (2) R (3)	X	R (1) R (2)	**SUBJ 126**	No	R (1) L CP (3)	L (1) L CP (3) R (4)	L CP (3)	R (1) R (2) R (3) L (4)
SUBJ 111	Yes	R CP (1) L (2) R (3)	R CP (1) L (3)	X	L (1)	**SUBJ 127**	No	L CP (3)	L (1) L (2) L CP (3) L (4)	X	R (1) R (3)
SUBJ 112	Yes	R (1) R(3)	L (1)	X	R (2)	**SUBJ 128**	No	L (1) R (2) L CP (3)	L CP (3)	X	R (1) L (2) R (3)
SUBJ 113	Yes	R (1) R CP (2) L CP (3)	L CP (1) R CP (2) L CP (3)	L CP (3)	L CP (1) L (2)	**SUBJ 129**	No	L (1) L (2) L (3)	R (1) R (2) R (3)	X	X
SUBJ 114	Yes	R (2) R (3)	L (2) L (3)	X	R (1)	**SUBJ 130**	No	L (1)	R (1) R (2) R (3)	X	L (3)
SUBJ 115	Yes	L (2) R (3)	R (1) R (2) L (3)	X	L (1) R (3)	**SUBJ 131**	No	L (2)	R (1) R (2) R (3)	X	L (1) L (3)
SUBJ 116	Yes	L (1) L (2) R (3)	R (1) R (2) L CP (3)	L CP (3)	L (1) R (3)	**SUBJ 132**	No	L (2) L CP (3)	R (1) R CP (2) L CP (3) L CP (4)	X	R CP (2) R (3) L CP (4)
SUBJ 117	Yes	L (1) L (2)	R (1) R CP (2) R (3)	X	R CP (2) L (3)	**SUBJ 133**	No	L CP (1)	L CP (1) L (2) L (4)	X	R (1) R (2) R (3) R (4)
SUBJ 118	No	L (2) L (3)	R (1) R (2) R (3)	X	L (1) L (2) L (3)	**SUBJ 134**	No	R CP (1) L (2)	R CP(1) R (2) R (4)	X	L (1) L (3) L (4)
SUBJ 119	No	R (2)	R (1) L (2) R (3)	X	L (1) L (3)	**SUBJ 135**	No	L (3)	R (1) R (3) R (4) L (6)	X	L (1) L (4) L (7)
SUBJ 120	No	L (1) L (2)	R (1) R (2) R (3)	X	L (3)	**SUBJ 136**	No	R (3)	L (2) L CP (3) R (4) R (5)	X	L (2) L CP (3) L (5)
SUBJ 121	No	R (3) L (4)	L (1) L (3) R (4)	X	R (1) R (3)	**SUBJ 137**	No	LCP(5)	R (1) R (3) R (4) L CP (5)	X	L (1) L (3) L (4) R (5)
SUBJ 122	No	X	R (1) R (2) R (3)	X	L (3)	**SUBJ 138**	No	R (3)	L (2) L (3)	X	R (2)

Supplementary Table 4. EMG and force plate recordings for stroke survivors

Legenda – L: left, R; right, FP: force plate, EMG: electromyography, BWA: Basic Walk Across trials, X: no force plate data

ID	EMG	FP 1	FP 2	FP 3	FP 4
TVC03	Yes	L (BWA6) R (BWA7)	L (BWA6) R (BWA7)	X	X
TVC04	Yes	R (BWA6) L (BWA7)	L (BWA6) R (BWA7) R (BWA8)	X	R (BWA6) L (BWA7) L (BWA8)
TVC05	Yes	L (BWA4) L (BWA5)	L (BWA4) L (BWA5)	R (BWA5)	L (BWA5)
TVC06	Yes	L (BWA2) L (BWA6)	R (BWA2) R (BWA5) R (BWA6)	L (BWA5)	L (BWA2)
TVC08	Yes	X	X	L (BWA3)	X
TVC09	Yes	R (BWA1) R (BWA3)	L (BWA1) R (BWA2) L (BWA3)	X	R (BWA1) R (BWA3)
TVC10	Yes	X	X	X	X
TVC11	No	X	L (BWA1) L (BWA2) R (BWA5)	X	X
TVC12	Yes	R (BWA1) L (BWA2)	L (BWA1) R (BWA2) L (BWA3)	X	R (BWA1) R (BWA3)
TVC13	Yes	L (BWA5) L (BWA6)	L (BWA5) L (BWA6)	R (BWA6)	L (BWA5) L (BWA6)
TVC14	Yes	L (BWA2) L (BWA5)	L (BWA2) L (BWA5)	R (BWA2) R (BWA5)	L (BWA2)
TVC15	Yes	R (BWA3) L (BWA4) R (BWA5)	L (BWA2) R (BWA4) L (BWA5)	X	R (BWA3) L (BWA4)
TVC16	Yes	X	X	X	X
TVC17	Yes	X	X	L (BWA4)	X
TVC19	Yes	R (BWA7)	R (BWA7)	L (BWA7)	L (BWA6) R (BWA7)
TVC20	Yes	L (BWA5) R (BWA6)	L (BWA2) R (BWA5)	X	X
TVC21	Yes	R (BWA4)	X	X	R (BWA4) L (BWA7)
TVC22	Yes	L (BWA2) R (BWA1) L (BWA4)	L (BWA2) R (BWA3) L (BWA4)	R (BWA2) L (BWA3) R (BWA4)	X
TVC23	Yes	X	X	X	R (BWA5) L (BWA6)
TVC24	Yes	X	L (BWA7)	X	L (BWA7)
TVC25	Yes	R (BWA5)	R (BWA5)	L (BWA5)	R (BWA5) R (BWA6)

TVC26	Yes	R (BWA4) L (BWA6)	X	X	X
TVC27	Yes	L (BWA4) L (BWA5)	R (BWA3) R (BWA4)	X	L (BWA3) L (BWA4)
TVC28	Yes	X	X	X	X
TVC29	Yes	X	X	X	X
TVC30	Yes	R (BWA4) R (BWA6)	X	X	X
TVC32	Yes	R (BWA6) R (BWA7) R (BWA8)	L (BWA6) L (BWA8)	X	R (BWA6) R (BWA7) R (BWA8)
TVC33	Yes	R (BWA6)	R (BWA6)	L (BWA4)	R (BWA4)
TVC34	Yes	X	X	X	X
TVC35	Yes	L (BWA4)	X	X	L (BWA4)
TVC36	Yes	X	X	L (BWA2)	X
TVC37	Yes	L (BWA1)	X	X	R (BWA3)
TVC38	Yes	L (BWA6)	L (BWA6)	X	X
TVC39	Yes	X	X	X	X
TVC40	Yes	L (BWA7) R (BWA1)	R (BWA7) L (BWA2)	X	R (BWA6) R (BWA4)
TVC41	Yes	X	X	X	R (BWA2)
TVC42	Yes	X	X	X	X
TVC43	Yes	L (BWA 5) L (BWA 6) R (BWA7)	R (BWA 5) R (BWA6) L (BWA7)	L (BWA6) R (BWA7)	X
TVC46	Yes	R (BWA6)	L (BWA5) L (BWA 7)	X	X
TVC47	Yes	X	L (BWA2)	X	X
TVC48	Yes	X	X	X	X
TVC49	Yes	L (BWA4) L (BWA5)	X	X	X
TVC51	Yes	L (BWA1)	L (BWA1) L (BWA3)	X	X
TVC52	Yes	R (BWA7)	X	X	L (BWA5)
TVC53	Yes	X	L (BWA5)	X	R (BWA3)
TVC54	Yes	X	X	X	X
TVC55	No	R (BWA5)	X	X	R (BWA5)
TVC57	No	R (BWA1)	X	X	X
TVC58	Yes	X	X	X	L (BWA4)
TVC60	Yes	L (BWA4) R (BWA6)	R (BWA4) R (BWA5) L (BWA6)	X	X

Supplementary table 5. Walking speed (meter/second) for the able-bodied adults and stroke survivors

Subj: subject, L: left, R: right, P: paretic, N: non-paretic

Subj	Lside	Rside	Subj	Lside	Rside	Subj	Lside	Rside	SubJ	P side	N side
SUBJ1	1.0544	1.0673	SUBJ55	1.0492	1.0430	SUBJ109	1.2103	1.2258	TVC03	0.2516	0.2543
SUBJ2	0.9095	0.9064	SUBJ56	1.4704	1.4694	SUBJ110	1.1850	1.1951	TVC04	0.9095	0.9034
SUBJ3	0.8799	0.8798	SUBJ57	1.2729	1.2610	SUBJ111	1.3285	1.3359	TVC05	0.1095	0.1136
SUBJ4	1.0838	1.0883	SUBJ58	1.4857	1.4417	SUBJ112	1.1947	1.1654	TVC06	0.6501	0.6530
SUBJ5	0.8014	0.8042	SUBJ59	1.0593	1.0792	SUBJ113	1.1857	1.1941	TVC08	0.1365	0.1405
SUBJ6	1.3000	1.2975	SUBJ60	1.5793	1.5703	SUBJ114	1.1246	1.1305	TVC09	0.8569	0.8661
SUBJ7	1.1607	1.1611	SUBJ61	1.0976	1.0999	SUBJ115	1.0113	1.0213	TVC10	0.3647	0.3634
SUBJ8	1.1534	1.1599	SUBJ62	1.0926	1.0959	SUBJ116	1.0471	1.0665	TVC11	0.4895	0.4872
SUBJ9	1.0958	1.0977	SUBJ63	1.5023	1.5244	SUBJ117	1.2344	1.2343	TVC12	0.6236	0.6121
SUBJ10	1.0689	1.0692	SUBJ64	1.3717	1.3784	SUBJ118	1.0276	1.0284	TVC13	0.2359	0.2342
SUBJ11	1.1414	1.1333	SUBJ65	1.2118	1.2375	SUBJ119	1.1871	1.1830	TVC14	0.2451	0.2418
SUBJ12	1.1529	1.1274	SUBJ66	1.0588	1.0521	SUBJ120	1.2872	1.2724	TVC15	0.8611	0.8705
SUBJ13	1.0539	1.0516	SUBJ67	1.1318	1.1214	SUBJ121	1.2155	1.2325	TVC16	0.3873	0.3820
SUBJ14	1.1406	1.1771	SUBJ68	1.5848	1.5924	SUBJ122	1.1860	1.1524	TVC17	0.6329	0.6059
SUBJ15	1.0336	1.0355	SUBJ69	1.3298	1.3346	SUBJ123	1.0469	1.0388	TVC19	0.4178	0.4132
SUBJ16	1.1737	1.1647	SUBJ70	1.1738	1.1708	SUBJ124	1.0966	1.1040	TVC20	1.3602	1.3325
SUBJ17	1.1015	1.1231	SUBJ71	1.3464	1.3442	SUBJ125	1.3659	1.3592	TVC21	0.9059	0.8903
SUBJ18	1.1414	1.1222	SUBJ72	1.2657	1.2659	SUBJ126	1.4117	1.3981	TVC22	0.3401	0.3402
SUBJ19	1.0232	1.0165	SUBJ73	1.1601	1.1635	SUBJ127	1.2576	1.2728	TVC23	0.2607	0.2563
SUBJ20	0.9628	0.9566	SUBJ74	1.2064	1.1911	SUBJ128	1.7284	1.7609	TVC24	0.1749	0.1789
SUBJ21	1.0706	1.0692	SUBJ75	1.0645	1.0592	SUBJ129	1.0520	1.0177	TVC25	0.3446	0.3510
SUBJ22	0.9814	0.9755	SUBJ76	1.1899	1.1888	SUBJ130	1.2927	1.2581	TVC26	0.4480	0.4467
SUBJ23	1.0184	1.0051	SUBJ77	1.1833	1.1780	SUBJ131	1.1920	1.2107	TVC27	0.6416	0.6532
SUBJ24	1.1847	1.1753	SUBJ78	1.1475	1.1550	SUBJ132	1.7827	1.8032	TVC28	0.3212	0.3464
SUBJ25	1.1467	1.1373	SUBJ79	1.1167	1.1107	SUBJ133	1.1954	1.1809	TVC29	0.1120	0.1132
SUBJ26	1.2963	1.2944	SUBJ80	1.6058	1.5733	SUBJ134	1.3962	1.3998	TVC30	0.3267	0.3345
SUBJ27	0.8338	0.8148	SUBJ81	1.1529	1.1411	SUBJ135	1.1839	1.1821	TVC32	0.7502	0.7614
SUBJ28	1.0919	1.1002	SUBJ82	1.5416	1.5244	SUBJ136	1.3267	1.3413	TVC33	0.2057	0.2093
SUBJ29	1.2268	1.2117	SUBJ83	1.3231	1.3236	SUBJ137	1.3492	1.3575	TVC34	0.5668	0.5657
SUBJ30	1.4127	1.4188	SUBJ84	1.1323	1.1394	SUBJ138	1.1314	1.1385	TVC35	0.4254	0.4391
SUBJ31	1.3850	1.3964	SUBJ85	1.1910	1.1847				TVC36	0.3314	0.3138
SUBJ32	1.0652	1.0638	SUBJ86	1.4056	1.4060				TVC37	0.5188	0.5128
SUBJ33	1.4247	1.4405	SUBJ87	1.2190	1.2071				TVC38	0.2248	0.2258
SUBJ34	1.1887	1.1964	SUBJ88	1.2002	1.1990				TVC39	0.2177	0.2235
SUBJ35	1.3170	1.3316	SUBJ89	1.4343	1.4424				TVC40	0.6838	0.6902
SUBJ36	1.1359	1.1420	SUBJ90	1.0378	1.0315				TVC41	0.2273	0.2288
SUBJ37	1.2498	1.2636	SUBJ91	1.3774	1.3507				TVC42	0.4274	0.4298
SUBJ38	1.1878	1.2056	SUBJ92	1.1933	1.1812				TVC43	0.8101	0.7997
SUBJ39	1.0483	1.0454	SUBJ93	1.1691	1.1625				TVC46	1.1201	1.1176
SUBJ40	1.1896	1.1770	SUBJ94	1.1644	1.1652				TVC47	0.2411	0.2373
SUBJ41	1.2724	1.2630	SUBJ95	1.2634	1.2757				TVC48	0.1958	0.1834
SUBJ42	0.9759	0.9685	SUBJ96	1.2023	1.2225				TVC49	0.2461	0.2602
SUBJ43	1.4288	1.4206	SUBJ97	1.3344	1.3416				TVC51	0.2240	0.2251
SUBJ44	1.1456	1.1369	SUBJ98	1.1551	1.1645				TVC52	1.1656	1.1655
SUBJ45	1.4189	1.1727	SUBJ99	1.3088	1.2992				TVC53	0.6975	0.7121
SUBJ46	1.2879	1.2732	SUBJ100	1.3257	1.3232				TVC54	0.3248	0.3245
SUBJ47	1.1791	1.1666	SUBJ101	1.2982	1.2988				TVC55	0.5357	0.5329
SUBJ48	1.0946	1.1065	SUBJ102	1.0499	1.0534				TVC57	0.3387	0.3323
SUBJ49	1.0942	1.0986	SUBJ103	1.0001	1.0064				TVC58	0.7926	0.8038
SUBJ50	0.9895	1.0005	SUBJ104	1.4896	1.4750				TVC60	0.8258	0.8251
SUBJ51	1.4176	1.4258	SUBJ105	0.9778	0.9783						
SUBJ52	1.0400	1.0342	SUBJ106	1.2414	1.2354						
SUBJ53	1.5175	1.5686	SUBJ107	1.2305	1.2366						
SUBJ54	1.4960	1.4728	SUBJ108	1.3310	1.3506						