

Table 1. Mean and SD values, across all subjects participating in the experiment, of the parameters selected to describe the angle curves of the foot joints during normal walking.

Motion	Joint	Parameters	Mean	SD
DF/PF	Ankle	Initial contact angle (°)	-0.73	3.47
		PF angle peak (°)	-9.85	3.30
		Time PF angle peak (%)	21.00	3.66
		DF angle peak (°)	4.08	3.23
		Time DF angle peak (%)	72.64	6.87
		Final contact angle (°)	-15.33	4.97
		Angle range (°)	20.17	4.44
	MT	Initial contact angle (°)	-1.83	1.82
		DF angle peak (°)	7.60	1.81
		Time DF angle peak (%)	78.58	3.52
		Final contact angle (°)	-5.57	2.77
		Angle range (°)	13.39	2.61
AB/AD	MP	Initial contact angle (°)	17.40	5.57
		DF angle peak (°)	32.67	3.46
		Time DF angle peak (%)	94.34	3.60
		PF angle peak (°)	0.61	1.21
		Final contact angle (°)	26.88	7.96
		Angle range (°)	32.03	3.65
	Ankle	Initial contact angle (°)	-1.94	2.30
		AB angle peak (°)	0.90	2.45
		Time AB angle peak (%)	36.34	12.56
		AD angle peak (°)	-6.75	2.55
		Time AD angle peak (%)	90.67	4.96
		Final contact angle (°)	-3.87	3.26
IN/EV		Angle range (°)	8.02	1.75
MT	Initial contact angle (°)	-3.05	1.88	
	AB angle peak (°)	2.43	1.02	
	Final contact angle (°)	-6.35	2.91	
	Angle range (°)	9.54	2.33	
MP	Initial contact angle (°)	4.58	2.95	
	AD angle peak (°)	-3.81	1.67	
	Time AD angle peak (%)	72.83	12.22	
	Final contact angle (°)	3.67	3.67	
	Angle range (°)	9.35	3.13	
Ankle	Initial contact angle (°)	5.30	2.51	
	IN angle peak (°)	7.65	2.68	
	Time IN angle peak (%)	93.82	3.82	
	EV angle peak (°)	-2.01	1.48	
	Time EV angle peak (%)	44.50	15.02	
	Final contact angle (°)	6.02	2.93	
	Angle range (°)	10.11	2.12	
MT	Initial contact angle (°)	0.86	2.37	
	1st IN angle peak (°)	2.08	2.06	
	Time 1st IN angle peak (%)	14.17	8.72	
	2nd IN angle peak (°)	1.64	1.90	
	Time 2nd IN angle peak (%)	87.36	10.54	

	EV angle peak (°)	-2.20	1.77
	Final contact angle (°)	0.34	1.95
	Angle range (°)	4.80	1.51
MP	Initial contact angle (°)	2.11	3.89
	1st EV angle peak (°)	-5.62	3.63
	Time 1st EV angle peak (°)	33.76	10.98
	2nd EV angle peak (°)	-7.61	3.30
	Time 2nd EV angle peak (°)	80.92	15.77
	Final contact angle (°)	-1.86	5.14
	Angle range (°)	12.35	3.96

Table 2. Mean and SD values, across all subjects participating in the experiment, of the parameters selected to describe the moment curves of the foot joints during normal walking.

Motion	Joint	Parameters	Mean	SD
DF/PF	Ankle	DF moment peak (N·m/kg)	1.24	0.08
		Time DF moment peak (%)	75.39	2.41
		Moment range (N·m/kg)	1.26	0.08
	MT	DF moment peak (N·m/kg)	0.97	0.07
		Time DF moment peak (%)	76.98	2.30
		Moment range (N·m/kg)	0.97	0.08
	MP	DF moment peak (N·m/kg)	0.14	0.34
		Time DF moment peak (%)	84.32	1.46
		Moment range (N·m/kg)	0.14	0.03
AB/AD	Ankle	AD moment peak (N·m/kg)	-0.06	0.05
		Time AD moment peak (%)	75.38	21.23
		Moment range (N·m/kg)	0.11	0.04
	MT	AD moment peak (N·m/kg)	-0.09	0.03
		Time AD moment peak (%)	87.42	2.18
		Moment range (N·m/kg)	0.11	0.03
	MP	AB moment peak (N·m/kg)	0.02	0.01
		Time AB moment peak (%)	84.84	5.58
		Moment range (N·m/kg)	0.03	0.01
IN/EV	Ankle	IN moment peak (N·m/kg)	0.05	0.03
		Time IN moment peak (%)	89.70	2.72
		EV moment peak (N·m/kg)	-0.21	0.06
		Time EV moment peak (%)	51.84	8.30
		Moment range (N·m/kg)	0.27	0.05
	MT	IN moment peak (N·m/kg)	0.07	0.03
		Time IN moment peak (%)	85.84	2.95
		EV moment peak (N·m/kg)	-0.11	0.05
		Time EV moment peak (%)	49.61	8.26
		Moment range (N·m/kg)	0.18	0.04
	MP	EV moment peak (N·m/kg)	-0.10	0.04
		Time EV moment peak (%)	83.16	1.50
		Moment range (N·m/kg)	0.11	0.05

Table 3. Mean and SD values, across subjects of each gait pattern, for the parameters describing the angle curves that were significantly affected by the gait pattern.

Motion	Joint	Parameters	Group 1		Group 2		Group 3	
			Mean	SD	Mean	SD	Mean	SD
DF/PF	Ankle	Time PF angle peak (%)	23.17	2.40	19.67	3.75	17.7	2.87
		Angle range (°)	18.61	3.90	25.25	5.54	21.28	3.91
	MT	Time DF angle peak (%)	80.56	2.00	78.87	3.41	75.12	3.07
	MP	Time DF angle peak (%)	96.67	1.62	93.47	3.76	90.64	2.89
AB/AD		Final contact angle (°)	31.44	4.45	22.68	7.51	20.40	8.05
Ankle	Time AB angle peak (%)	37.41	11.08	52.40	13.16	29.70	10.71	
	Final contact angle (°)	-5.21	2.49	-3.30	5.59	-1.76	2.79	
MP	Initial contact angle (°)	4.08	2.54	9.19	1.98	4.06	2.81	
	Time AD angle peak (%)	79.35	6.47	74.27	5.49	61.32	13.12	
	Angle range (°)	8.66	2.39	13.90	2.22	9.15	3.54	
IN/EV	Ankle	Time IN angle peak (%)	95.12	3.37	94.27	4.22	91.48	3.66
		Final contact angle (°)	7.10	2.38	6.25	3.94	4.12	2.80
	MT	Time 1st IN angle peak (%)	18.17	10.27	3.80	3.41	10.48	4.04
	MP	1st EV angle peak (°)	-4.42	3.16	-2.78	2.22	-8.50	3.01

Table 4. Mean and SD values, across subjects of each gait pattern, for the parameters describing the moment curves that were significantly affected by the gait pattern.

Motion	Joint	Parameters	Group 1		Group 2		Group 3	
			Mean	SD	Mean	SD	Mean	SD
DF/PF	Ankle	DF moment peak (N·m/kg)	1.27	0.06	1.24	0.11	1.18	0.07
		Time DF moment peak (%)	76.69	1.39	75.33	1.53	73.20	2.49
	MT	Time DF moment peak (%)	78.14	1.44	77.00	0.69	75.00	2.51
AB/AD	Ankle	Time AD moment peak (%)	85.18	9.75	27.73	11.03	73.02	17.67
		Moment range (N·m/kg)	0.11	0.04	0.18	0.02	0.11	0.04
	MT	AD moment peak (N·m/kg)	-0.10	0.03	-0.04	0.03	-0.09	0.03
		Time AD moment peak (%)	87.97	1.68	89.73	0.50	85.78	2.23
	MP	AB moment peak (N·m/kg)	0.02	0.01	0.03	0.03	0.04	0.01
		Moment range (N·m/kg)	0.02	0.01	0.03	0.03	0.04	0.01
IN/EV	Ankle	Time IN moment peak (%)	90.83	2.07	90.67	1.67	87.5	2.75
	MT	Time IN moment peak (%)	87.08	2.70	84.47	1.40	84.16	2.81