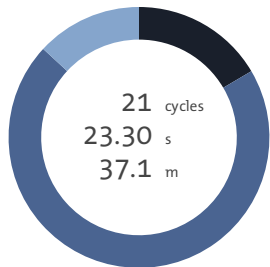


# Gait Analysis Report

## Essentials

29/09/2014



	Time(s)	Cycle
<b>Initiation/Termination</b>	<b>3.855</b>	<b>0</b>
<b>Forward Gait</b>	<b>16.39</b>	<b>18</b>
<b>Turning</b>	<b>3.06</b>	<b>3</b>

**Physilog**<sup>®</sup>  
firmware version 4.1.2

Files  
LF104046.BIN - RF108038.BIN

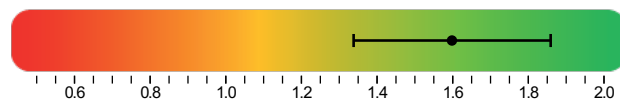
Options  
Analyse Foot Clearance - Shoesize:  
24 cm



### Speed

Walking Stride Velocity

**1.598** ± 0.261 m/s  
mean std



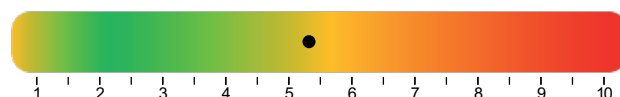
Color based on reference study by Studenski et al.



### Variability

Coefficient of variation of the gait cycle time

**5.32** %  
mean



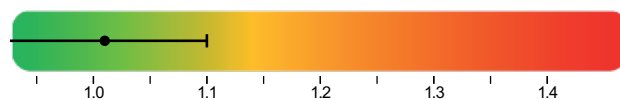
Color based on reference study by Hausdorff et al.












### Symmetry










Swing time ratio between right and left side

**1.01** ± 0.0881 SI  
mean std



Color based on reference study by Patterson et al.

Temporal	Heel-strike Time 		Cycle duration 		Cadence 		Stance 		Swing 		Loading 		Foot-flat 		Pushing 		Double support 	
	Parameter: unit	left seconds	right seconds	left seconds	right seconds	left steps/minute	right steps/minute	left % of cycle duration	right % of cycle duration	left % of gait cycle	right % of gait cycle	left % of stance	right % of stance	left % of stance	right % of stance	left % of stance	right % of stance	left % of cycle duration
Mean	16.463	16.920	0.925	0.927	130.28	129.78	58.78	58.52	41.22	41.48	14.43	13.64	40.61	44.47	44.96	41.89	16.87	16.87
Median	16.380	16.860	0.915	0.915	131.15	131.15	58.79	58.86	41.21	41.14	14.95	13.83	40.19	44.86	45.28	42.52	16.39	16.39
STD	6.867	6.861	0.061	0.049	7.96	5.91	1.20	3.14	1.20	3.14	2.65	2.92	6.89	7.27	5.50	6.14	3.19	3.19
IQR	11.760	11.759	0.030	0.036	4.30	5.16	0.57	3.92	0.57	3.92	2.15	2.89	7.52	7.62	4.82	6.81	3.99	3.99
Min	5.270	5.815	0.785	0.895	104.80	105.26	55.38	54.44	37.86	32.89	7.69	6.54	30.84	35.45	32.46	23.44	12.62	12.62
Max	27.600	28.065	1.145	1.140	152.87	134.08	62.14	67.11	44.62	45.56	18.10	19.63	58.77	68.75	56.14	52.73	28.38	28.38
Ratio			0.998	1.002	1.00	1.00	1.00	1.00	0.99	1.01	1.06	0.94	0.91	1.10	1.07	0.93		
CV[%]			6.579	5.315	6.11	4.55	2.03	5.36	2.90	7.57	18.33	21.43	16.97	16.35	12.24	14.66	18.88	18.88
1	5.270	5.815	0.785	0.920	152.87	130.43	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	12.62	12.62
2	6.300	6.760	1.030	0.945	116.50	126.98	62.14	56.61	37.86	43.39	13.28	19.63	43.75	37.38	42.97	42.99	13.66	13.66
3	7.215	7.655	0.915	0.895	131.15	134.08	58.47	55.87	41.53	44.13	15.89	18.00	36.45	40.00	47.66	42.00	14.44	14.44
4	8.115	8.555	0.900	0.900	133.33	133.33	58.33	56.11	41.67	43.89	17.14	15.84	36.19	37.62	46.67	46.53	14.61	14.61
5	9.005	9.455	0.890	0.900	134.83	133.33	58.99	54.44	41.01	45.56	18.10	18.37	35.24	35.71	46.67	45.92	13.33	13.33
6	9.905	10.360	0.900	0.905	133.33	132.60	58.89	55.25	41.11	44.75	16.04	14.00	33.96	36.00	50.00	50.00	15.00	15.00
7	10.805	11.255	0.900	0.885	133.33	134.08	60.00	55.87	40.00	44.13	17.59	16.00	33.33	39.00	49.07	45.00	15.85	15.85
8	11.720	12.165	0.915	0.910	131.15	131.87	59.02	56.04	40.98	43.96	16.67	14.71	37.04	47.06	46.30	38.24	14.44	14.44
9	12.620	13.070	0.900	0.905	133.33	132.60	58.89	55.25	41.11	44.75	16.04	14.00	33.96	36.00	50.00	50.00	14.21	14.21
10	13.535	13.985	0.915	0.915	131.15	131.15	58.47	59.56	41.53	40.44	14.95	15.60	42.06	42.20	42.99	42.20	18.82	18.82
11	14.465	14.925	0.930	0.940	129.03	127.66	58.60	56.38	41.40	43.62	14.68	14.15	42.20	51.89	43.12	33.96	15.79	15.79
Turns 12	15.415	15.895	0.950	0.970	126.32	123.71	58.95	56.19	41.05	43.81	13.39	13.76	47.32	52.29	39.29	33.94	15.03	15.03
Turns 13	16.380	16.860	0.965	0.965	124.35	124.35	59.07	66.32	40.93	33.68	8.77	7.81	58.77	68.75	32.46	23.44	28.38	28.38
Turns 14	17.525	18.000	1.145	1.140	104.80	105.26	56.77	67.11	43.23	32.89	7.69	6.54	57.69	44.44	34.62	49.02	20.53	20.53
15	18.475	18.935	0.950	0.935	126.32	128.34	60.00	58.82	40.00	41.18	8.77	11.82	35.09	35.45	56.14	52.73	16.39	16.39
16	19.390	19.835	0.915	0.900	131.15	133.33	58.47	58.89	41.53	41.11	14.02	12.26	30.84	45.28	55.14	42.45	18.33	18.33
17	20.290	20.750	0.900	0.915	133.33	131.15	59.44	58.47	40.56	41.53	14.95	14.02	37.38	40.19	47.66	45.79	18.48	18.48
18	21.210	21.650	0.920	0.900	130.43	133.33	59.78	60.00	40.22	40.00	14.55	13.89	42.73	39.81	42.73	46.30	18.78	18.78
19	22.115	22.565	0.905	0.915	132.60	131.15	58.56	59.02	41.44	40.98	15.09	12.96	33.96	46.30	50.94	40.74	17.22	17.22
20	23.015	23.465	0.900	0.900	133.33	133.33	58.89	58.89	41.11	41.11	16.04	12.26	40.57	44.34	43.40	43.40	15.59	15.59
21	23.945	24.385	0.930	0.920	129.03	130.43	55.38	60.33	44.62	39.67	15.53	12.61	45.63	45.95	38.83	41.44	17.78	17.78
22	24.845	25.285	0.900	0.900	133.33	133.33	58.33	60.00	41.67	40.00	14.29	12.04	41.90	45.37	43.81	42.59	18.78	18.78
23	25.750	26.200	0.905	0.915	132.60	131.15	58.56	59.02	41.44	40.98	15.09	11.11	40.57	45.37	44.34	43.52	17.93	17.93
24	26.670	27.115	0.920	0.915	130.43	131.15	58.70	60.11	41.30	39.89	13.89	12.73	39.81	48.18	46.30	39.09	18.82	18.82
25	27.600	28.065	0.930	0.950	129.03	126.32	58.06	60.00	41.94	40.00	13.89	13.16	44.44	51.75	41.67	35.09	16.84	16.84

Spatial Parameter: unit	 Stride length meters		 Stride velocity meters/s		 Peak ang. velocity degrees/s		 Swing speed meters/s		 Turning angle degree		 Strike angle degree		 Lift-off Angle degree		 Swing width meters		 3D Path length % of stride length	
	left	right	left	right	left	right	left	right	left	right	left	right	left	right	left	right	left	right
Mean	1.441	1.483	1.575	1.588	488.9	514.7	4.767	4.663	7.3	7.5	28.04	27.24	-80.80	-80.24	-0.042	0.006	106.61	104.64
Median	1.508	1.529	1.649	1.668	506.9	531.2	4.853	4.833	0.5	-0.2	29.18	29.66	-82.50	-81.05	-0.031	0.018	104.85	104.03
STD	0.216	0.230	0.230	0.261	75.2	67.3	0.359	0.674	26.1	25.8	6.11	8.21	11.30	7.86	0.073	0.042	6.19	2.80
IQR	0.060	0.073	0.103	0.126	36.0	39.5	0.190	0.178	3.7	4.4	2.21	1.51	3.59	3.19	0.018	0.041	1.27	0.65
Min	0.766	0.477	0.785	0.623	201.8	237.5	3.304	1.963	-3.5	-9.9	5.23	1.26	-87.32	-87.27	-0.337	-0.121	103.87	103.21
Max	1.603	1.630	1.785	1.803	569.4	568.6	5.160	5.119	115.9	117.4	33.98	33.27	-28.12	-44.27	0.037	0.073	134.10	117.60
Ratio	0.972	1.029	0.985	1.015	0.9	1.1	1.022	0.978	1.0	1.0	1.03	0.97	1.01	0.99	-7.077	-0.141	1.02	0.98
CV[%]	14.976	15.531	14.627	16.306	15.4	13.1					21.80	30.13	-13.99	-9.80			5.81	2.68
1	0.766	1.510	0.785	1.380	201.8	446.2	NAN	NAN	5.1	1.7	19.06	28.66	-28.12	-79.96	0.034	0.020	105.94	103.35
2	1.571	1.630	1.587	1.742	506.9	537.9	4.786	4.959	1.0	-1.9	29.92	31.70	-83.44	-85.72	-0.025	-0.016	103.87	104.12
3	1.578	1.590	1.711	1.766	523.4	553.1	4.947	5.019	-0.6	3.4	30.12	33.27	-85.65	-83.92	-0.027	-0.013	104.14	104.24
4	1.603	1.626	1.778	1.803	569.4	568.8	5.077	5.119	-2.2	2.7	33.98	32.66	-82.00	-84.63	-0.015	-0.014	104.21	104.17
5	1.594	1.619	1.785	1.794	514.9	561.5	5.160	5.034	1.0	-2.5	32.78	29.43	-84.90	-82.88	-0.029	0.032	104.45	104.37
6	1.544	1.585	1.689	1.785	553.2	520.5	4.981	4.961	0.5	-1.1	32.72	30.56	-85.21	-80.42	-0.036	-0.031	104.90	104.39
7	1.508	1.539	1.700	1.724	530.6	531.2	4.819	NAN	-1.9	3.6	32.05	29.03	-83.70	-80.76	-0.015	0.013	104.40	104.29
8	1.532	1.549	1.682	1.661	489.0	557.2	4.903	NAN	0.5	-2.9	31.19	30.51	-81.59	-80.26	-0.028	0.029	104.85	104.62
9	1.536	1.582	1.682	1.784	499.6	530.0	4.915	4.981	-1.6	-1.2	29.75	30.85	-82.50	-78.74	-0.046	-0.020	104.57	103.21
10	1.512	1.539	1.649	1.688	527.3	511.9	4.850	4.889	-2.3	-1.2	30.07	30.40	-82.30	-80.07	-0.027	0.012	104.84	103.52
11	1.489	1.527	1.616	1.560	509.3	521.0	4.752	4.781	-3.5	-4.6	28.88	29.90	-81.48	-78.85	-0.022	0.037	104.65	104.35
Turns 12	1.403	1.257	1.461	1.256	477.5	489.2	4.456	4.250	4.4	30.0	31.95	2.36	-78.28	-76.86	-0.048	0.073	106.53	104.41
Turns 13	0.888	0.477	1.030	0.623	442.1	237.5	NAN	1.963	64.1	117.4	5.23	1.26	-80.36	-44.27	-0.183	-0.101	116.23	117.60
Turns 14	1.008	1.217	1.242	1.129	325.2	425.0	3.304	3.680	115.9	49.5	16.04	16.34	-74.74	-83.88	-0.337	-0.121	134.10	107.27
15	1.476	1.589	1.523	1.688	455.5	538.0	4.632	4.832	5.6	-9.9	26.98	29.74	-81.71	-87.27	-0.032	0.028	104.79	103.80
16	1.533	1.561	1.642	1.771	492.9	545.7	NAN	4.913	-1.8	2.0	28.65	29.73	-87.32	-84.51	-0.037	0.042	105.22	104.03
17	1.515	1.561	1.665	1.712	528.7	492.9	4.856	4.786	0.5	-1.1	29.22	28.40	-86.01	-81.50	0.037	0.018	104.18	103.74
18	1.516	1.526	1.686	1.668	521.4	548.3	4.864	4.851	0.1	4.4	28.81	28.94	-85.75	-82.06	-0.041	0.029	104.85	103.51
19	1.519	1.529	1.662	1.664	504.9	538.6	4.900	4.868	2.2	-2.4	28.78	28.86	-85.41	-81.86	-0.034	0.028	104.66	104.29
20	1.492	1.522	1.616	1.682	512.5	513.0	4.842	4.868	-2.6	1.8	30.85	28.61	-85.14	-80.16	0.037	0.020	105.52	103.82
21	1.466	1.509	1.606	1.649	517.8	548.9	4.713	4.827	1.6	1.5	28.75	29.53	-82.37	-80.86	-0.046	0.020	106.32	103.61
22	1.504	1.488	1.695	1.639	490.0	568.6	4.858	4.768	1.7	0.4	28.95	29.53	-82.42	-82.88	-0.046	0.015	106.02	103.96
23	1.499	1.526	1.676	1.684	527.4	558.7	4.881	4.827	-2.7	-0.7	29.18	29.62	-85.03	-83.00	-0.034	0.013	105.77	104.01
24	1.469	1.524	1.587	1.657	486.4	526.7	4.683	4.822	-1.9	-0.2	28.13	29.95	-83.51	-81.05	-0.031	0.016	105.39	103.62
25	1.499	1.482	1.599	1.510	504.8	506.2	4.704	4.611	-0.2	-1.4	28.93	30.09	-81.07	-79.67	-0.031	0.022	104.86	103.76

Clearance									
		Max. heel meters		Max. toe 1 meters		Min. Toe meters		Max. toe 2 meters	
Parameter:	unit	left	right	left	right	left	right	left	right
Mean	side	0.250	0.265	0.068	0.077	0.027	0.029	0.163	0.158
Median		0.258	0.267	0.067	0.073	0.019	0.022	0.164	0.168
STD		0.042	0.041	0.024	0.033	0.020	0.022	0.023	0.043
IQR		0.042	0.049	0.024	0.026	0.014	0.020	0.016	0.032
Min		0.109	0.168	0.024	0.020	0.001	0.001	0.090	0.028
Max		0.328	0.341	0.132	0.142	0.081	0.076	0.204	0.206
Ratio		0.944	1.059	0.876	1.141	0.953	1.049	1.031	0.970
CV[%]									
1		0.109	0.281	NaN	NaN	NaN	NaN	NaN	NaN
2		0.276	0.341	0.078	0.142	0.017	0.072	0.155	0.196
3		0.271	0.335	0.072	0.137	0.029	0.076	0.170	0.206
4		0.283	0.338	0.092	0.138	0.030	0.064	0.181	0.202
5		0.258	0.315	0.059	0.117	0.013	0.052	0.173	0.190
6		0.258	0.278	0.061	0.081	0.017	0.019	0.178	0.169
7		0.243	0.219	0.046	NaN	0.001	NaN	0.157	NaN
8		0.235	0.227	0.040	NaN	NaN	NaN	0.155	NaN
9		0.226	0.229	0.038	0.043	NaN	0.001	0.160	0.165
10		0.263	0.266	0.068	0.073	0.019	0.017	0.168	0.176
11		0.249	0.267	0.056	0.076	0.011	0.030	0.161	0.181
Turns 12		0.261	0.258	0.067	0.067	0.017	0.023	0.163	0.080
Turns 13		0.186	0.168	NaN	0.051	NaN	0.022	NaN	0.028
Turns 14		0.219	0.272	0.055	0.078	0.012	0.001	0.090	0.080
15		0.237	0.219	0.044	0.020	NaN	NaN	0.123	0.148
16		0.209	0.220	NaN	0.026	NaN	NaN	NaN	0.150
17		0.218	0.232	0.024	0.038	NaN	NaN	0.144	0.149
18		0.275	0.256	0.090	0.065	0.038	0.009	0.170	0.155
19		0.287	0.287	0.087	0.093	0.030	0.040	0.163	0.185
20		0.289	0.280	0.094	0.091	0.068	0.029	0.204	0.168
21		0.328	0.267	0.132	0.074	0.081	0.020	0.195	0.169
22		0.292	0.277	0.092	0.079	0.046	0.017	0.182	0.164
23		0.274	0.267	0.076	0.071	0.027	0.017	0.172	0.176
24		0.260	0.267	0.066	0.073	0.020	0.022	0.157	0.174
25		0.254	0.265	0.062	0.071	0.017	0.016	0.164	0.166