

Subject Statistics

Gender	Overall Avg
Height (cm)	173.8
Mass (kg)	157

	<i>Right</i>	<i>Left</i>	<i>Diff</i>
Femur Length (cm)	0.440	0.439	0.001
Shank Length (cm)	0.409	0.398	0.010
Leg Length (cm)	0.849	0.837	0.011

Gait Statistics

Step Length (m)	0.614	0.589	0.025
Stride Length (m)	1.461	1.512	-0.050
Gait Cycle Time (s)	1.104	1.104	0.000
Speed (m/s)	1.324	1.370	-0.046
Cadnce (steps/min)	32.3	33.9	-1.554
Single Limb Support(%)	38.8	37.6	1.191
Double Support (%)	25.3	26.1	-0.791
Stance Phase (%)	64.1	63.7	0.400
Swing Phase (%)	35.9	36.3	-0.400

Introduction and Key to Graphics Report

Graphical data is color coded to the 8 phases of gait as presented in [Gait Analysis](#) by J. Perry and J. Burnfield 2nd Edition

IC - Initial Contact, LR - Loading Response, MSt - MidStance, TSt - Terminal Stance, PSw - PreSwing, ISw - Initial Swing, MSw - MidSwing, TSw - Terminal Swing

Normative data regarding phases are from Perry et. al.

Normative data were collected at Univ of Wisconsin LaCrosse by Kernozek & Willson and are available from www.innsport.com

Sample Report Structure

Analyses progress from foot and ankle through knee and hip

Kinematic and kinetic data presented in each plane of motion and are computed consistent with definitions contained in Perry et. al.

 indicates left side data

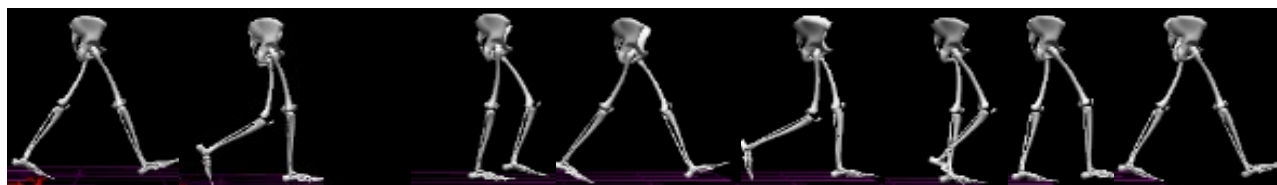
 indicates right side data

Vertical Bars indicate subject specific phases as defined by Perry et. al.

Data below the graph are graph values at each of the gait phases.

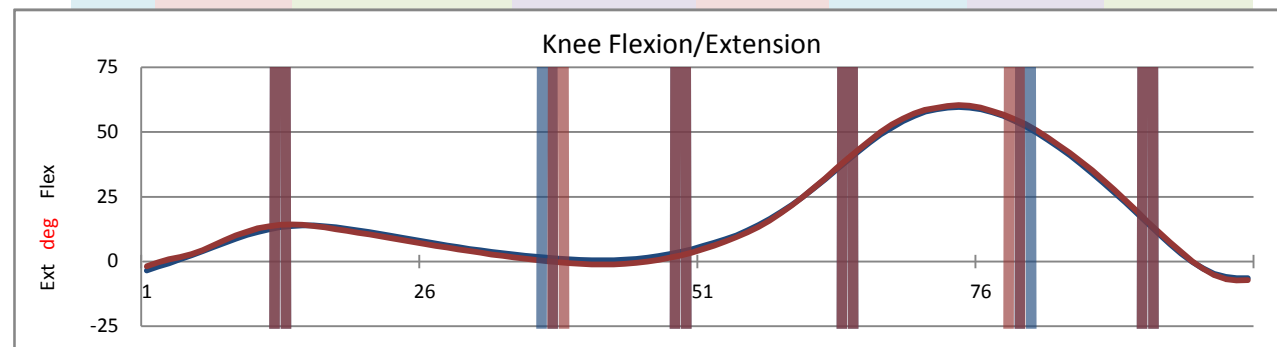
EMG data are normalized RMS with a 100ms window. Normalization in the report is to maximum RMS during the trial.

Sample Data



End of Gait Phases as Percent of Gait Cycle

	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm	2%	12%	31%	50%	62%	75%	87%	100%
Right		12%	36%	48%	63%	79%	90%	100%
Left		12%	37%	48%	63%	78%	90%	100%



Norm								
Right								
Left								

ANKLE - FOOT COMPLEX KINEMATICS

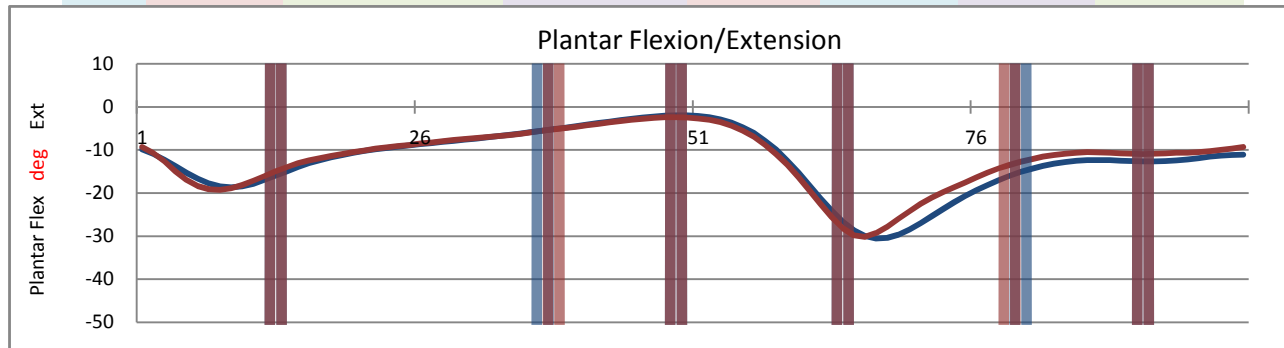
Patient ID All Subject-HH

Date 6/16/2010

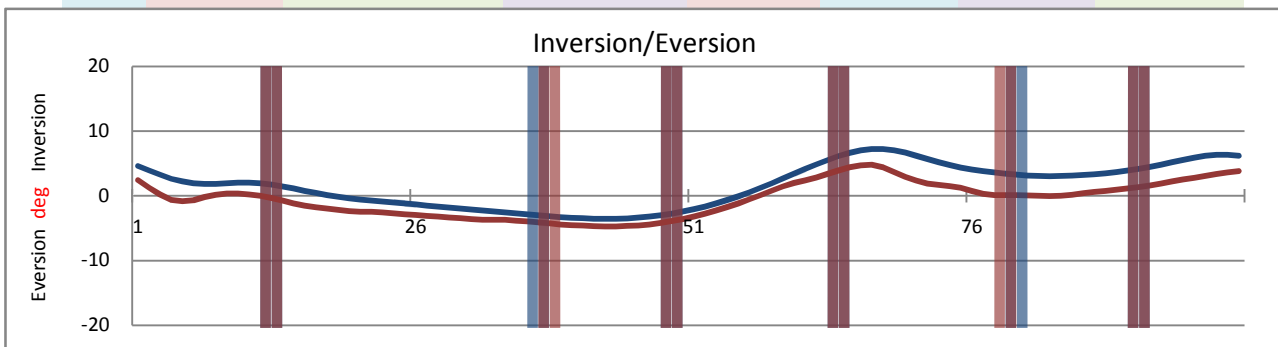


End of Gait Phases as Percent of Gait Cycle

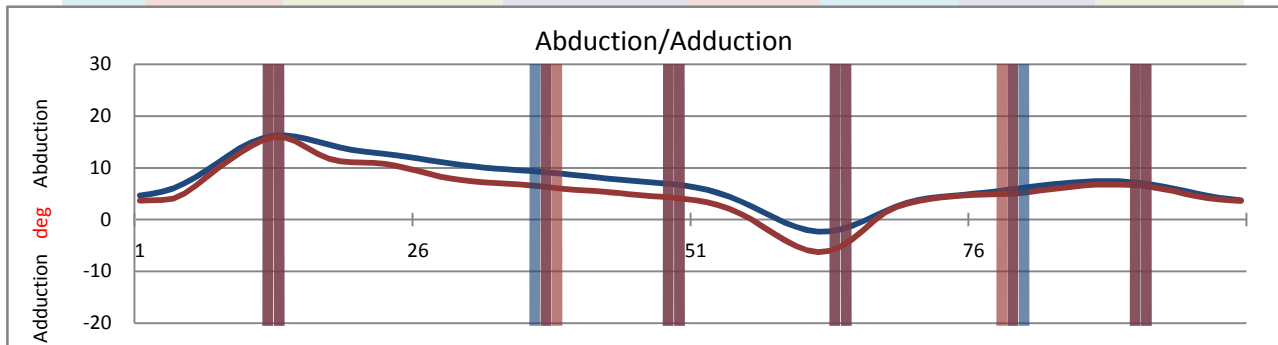
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm	2%	12%	31%	50%	62%	75%	87%	100%
Right		12%	36%	48%	63%	79%	90%	100%
Left		12%	37%	48%	63%	78%	90%	100%



Norm								
Right		-16.00	-5.52	-1.97	-26.62	-15.11	-12.64	-11.12
Left		-14.97	-5.22	-2.38	-28.16	-13.47	-10.92	-9.30



Norm								
Right		1.75	-3.00	-2.75	6.12	3.26	4.15	6.19
Left		-0.33	-4.27	-3.90	3.92	0.10	1.35	3.83

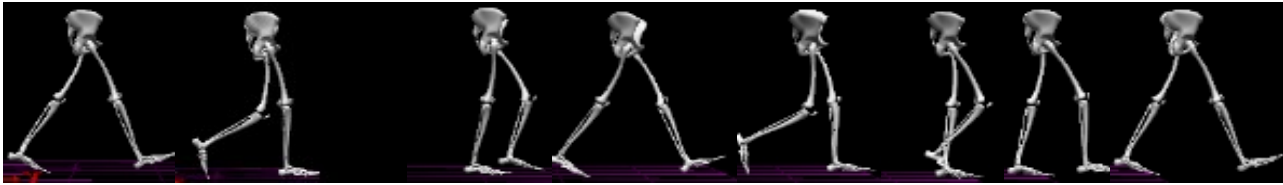


Norm								
Right		16.17	9.20	6.78	-1.93	6.01	7.05	3.72
Left		15.92	6.19	4.21	-5.21	4.95	6.56	3.59

ANKLE - FOOT COMPLEX KINETICS

Patient ID All Subject-HH

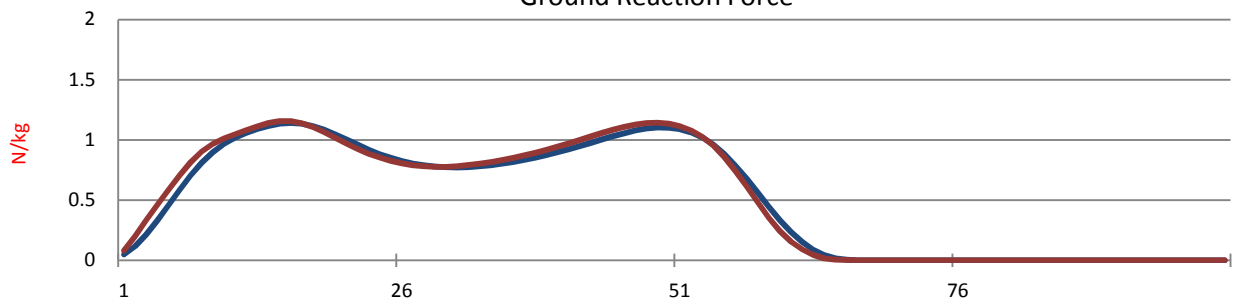
Date 6/16/2010



End of Gait Phases as Percent of Gait Cycle

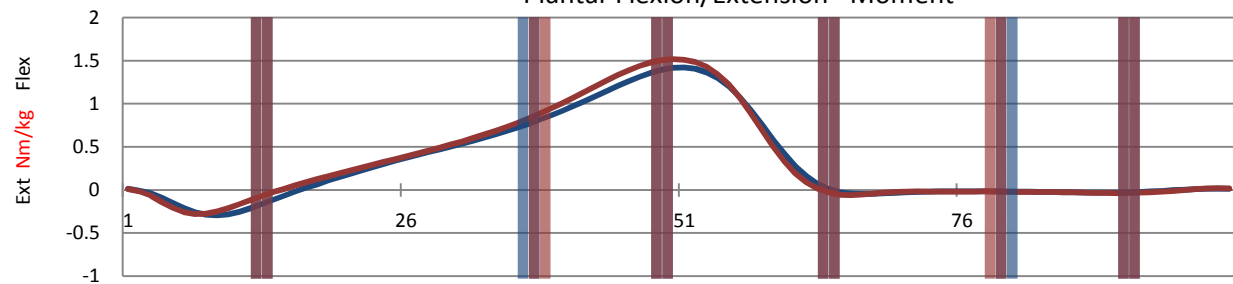
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm	2%	12%	31%	50%	62%	75%	87%	100%
Right		12%	36%	48%	63%	79%	90%	100%
Left		12%	37%	48%	63%	78%	90%	100%

Ground Reaction Force



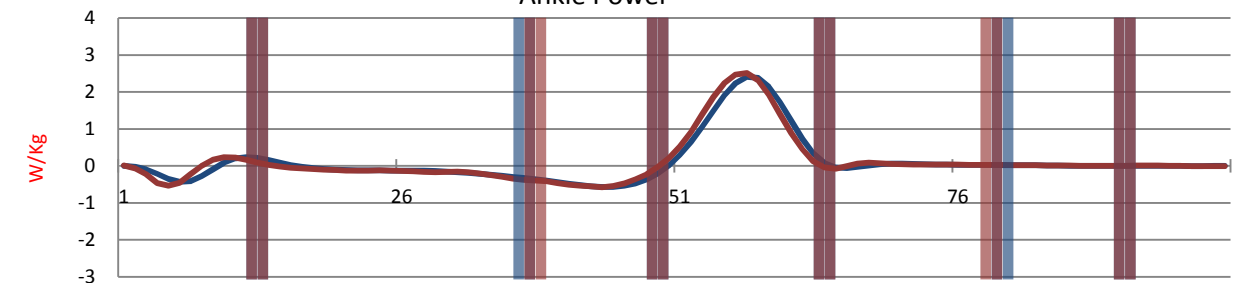
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		1.09	0.83	1.10	0.04	0.00	0.00	0.00
Left		1.11	0.89	1.14	0.02	0.00	0.00	0.00

Plantar Flexion/Extension - Moment



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		-0.17	0.77	1.39	0.01	-0.02	-0.03	0.01
Left		-0.07	0.89	1.50	-0.03	-0.02	-0.03	0.02

Ankle Power



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		0.22	-0.33	-0.21	0.08	0.02	0.00	0.00
Left		0.09	-0.40	-0.04	-0.04	0.02	0.00	-0.01

ANKLE - FOOT COMPLEX EMG RMS

Patient ID All Subject-HH

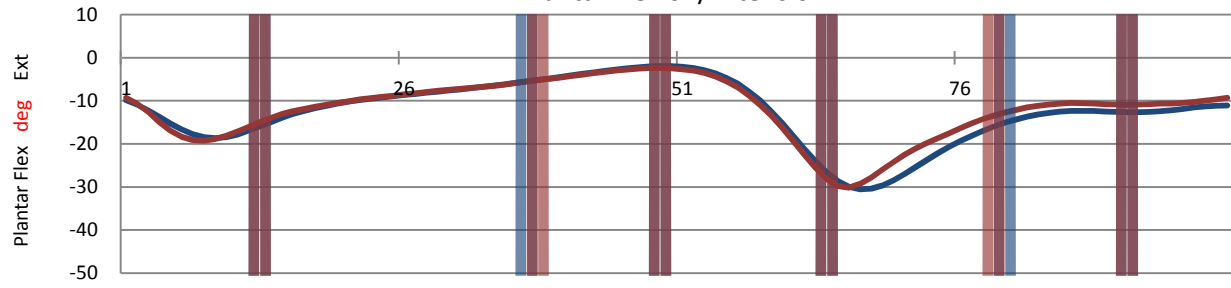
Date 6/16/2010



End of Gait Phases as Percent of Gait Cycle

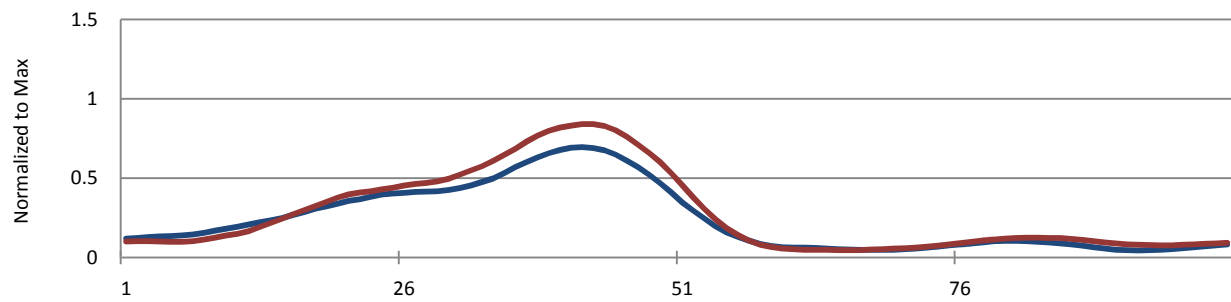
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm	2%	12%	31%	50%	62%	75%	87%	100%
Right		12%	36%	48%	63%	79%	90%	100%
Left		12%	37%	48%	63%	78%	90%	100%

Plantar Flexion/Extension



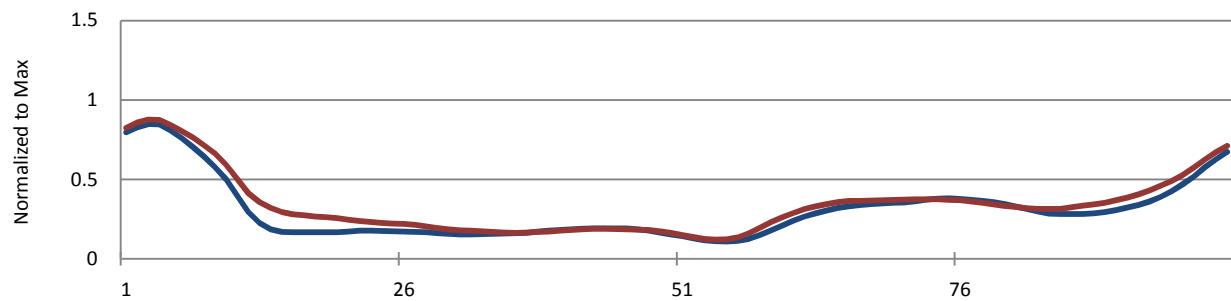
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		-16.00	-5.52	-1.97	-26.62	-15.11	-12.64	-11.12
Left		-14.97	-5.22	-2.38	-28.16	-13.47	-10.92	-9.30

Medial Gastrocs



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		0.22	0.60	0.47	0.06	0.11	0.05	0.08
Left		0.19	0.77	0.60	0.05	0.11	0.08	0.09

Anterior Tibialis



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		0.22	0.16	0.17	0.30	0.34	0.32	0.67
Left		0.36	0.17	0.17	0.34	0.34	0.38	0.71

KNEE KINEMATICS

Patient ID All Subject-HH

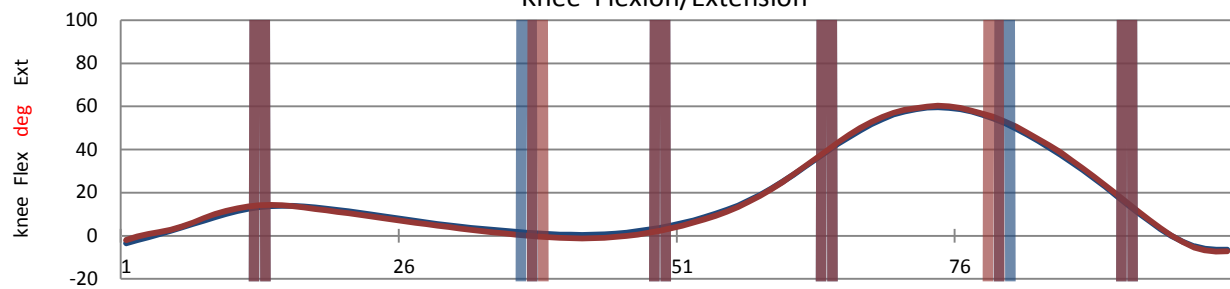
Date 6/16/2010



End of Gait Phases as Percent of Gait Cycle

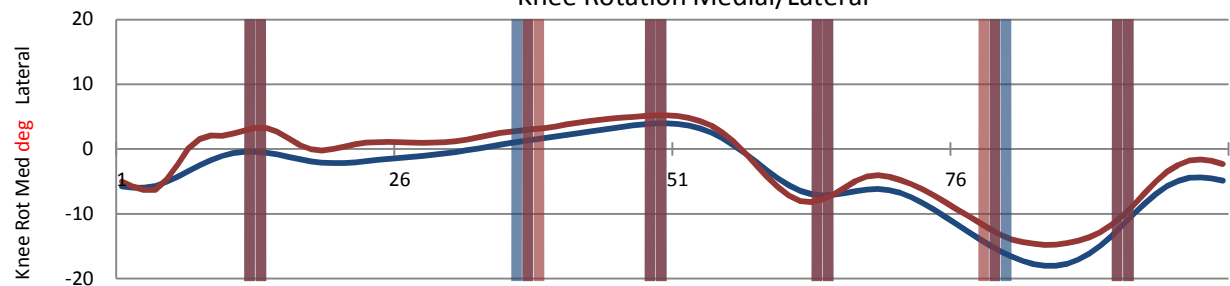
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm	2%	12%	31%	50%	62%	75%	87%	100%
Right		12%	36%	48%	63%	79%	90%	100%
Left		12%	37%	48%	63%	78%	90%	100%

Knee Flexion/Extension



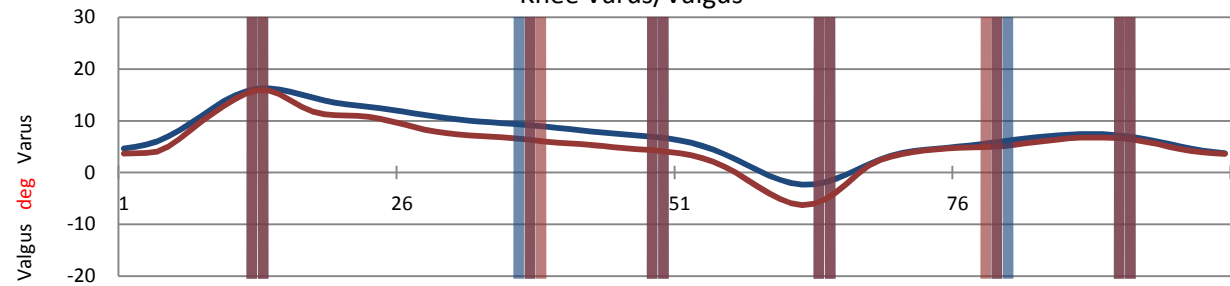
Norm								
Right		13.33	1.51	3.77	39.07	52.24	14.76	-6.37
Left		14.20	-0.24	2.39	39.63	55.13	15.41	-9.30

Knee Rotation Medial/Lateral



Norm								
Right		-0.42	1.18	3.94	-7.15	-15.78	-11.75	-4.90
Left		3.31	3.08	5.20	-7.77	-12.30	-10.29	-2.28

Knee Varus/Valgus



Norm								
Right		-3.66	-1.00	-0.60	-3.86	-11.77	-2.63	0.20

KNEE KINETICS

Patient ID All Subject-HH

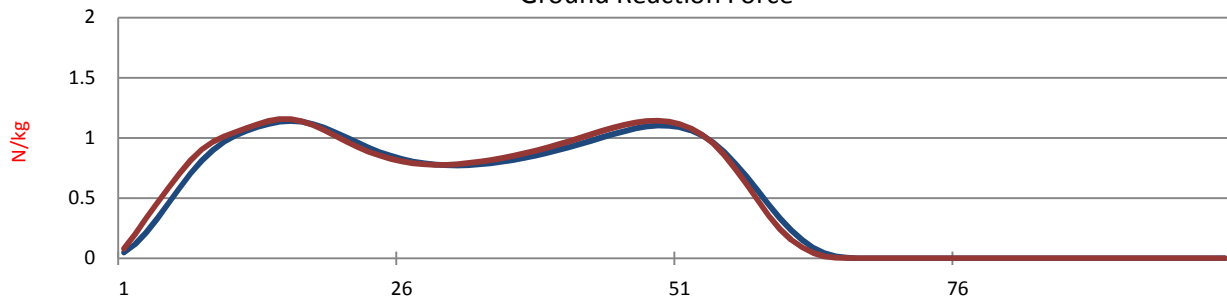
Date 6/16/2010



End of Gait Phases as Percent of Gait Cycle

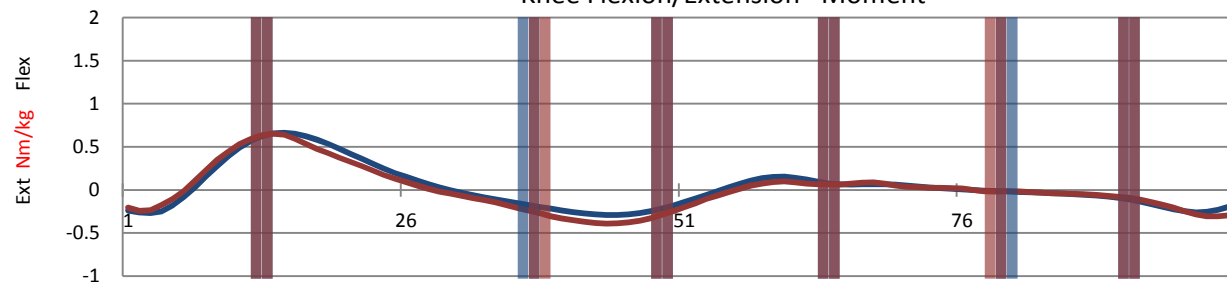
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm	2%	12%	31%	50%	62%	75%	87%	100%
Right		12%	36%	48%	63%	79%	90%	100%
Left		12%	37%	48%	63%	78%	90%	100%

Ground Reaction Force



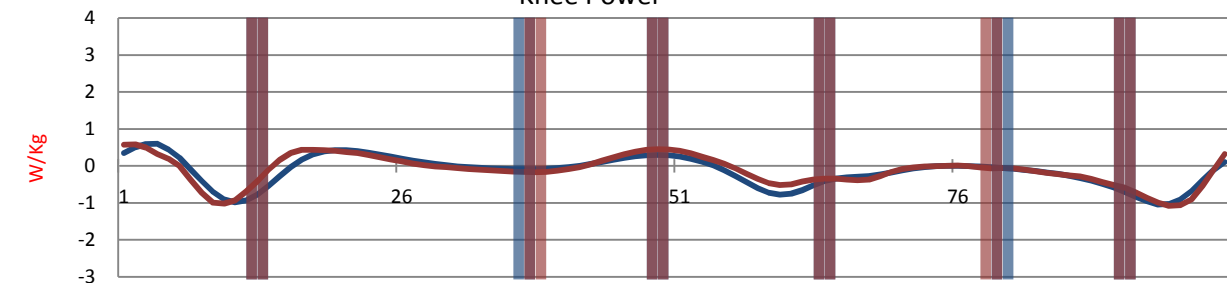
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		1.09	0.83	1.10	0.04	0.00	0.00	0.00
Left		1.11	0.89	1.14	0.02	0.00	0.00	0.00

Knee Flexion/Extension - Moment



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		0.63	-0.17	-0.22	0.08	-0.02	-0.11	-0.20
Left		0.63	-0.27	-0.29	0.06	-0.02	-0.09	-0.30

Knee Power



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		-0.78	-0.09	0.30	-0.41	-0.06	-0.71	0.11
Left		-0.42	-0.17	0.45	-0.34	-0.07	-0.59	0.32

KNEE EMG RMS

Patient ID All Subject-HH

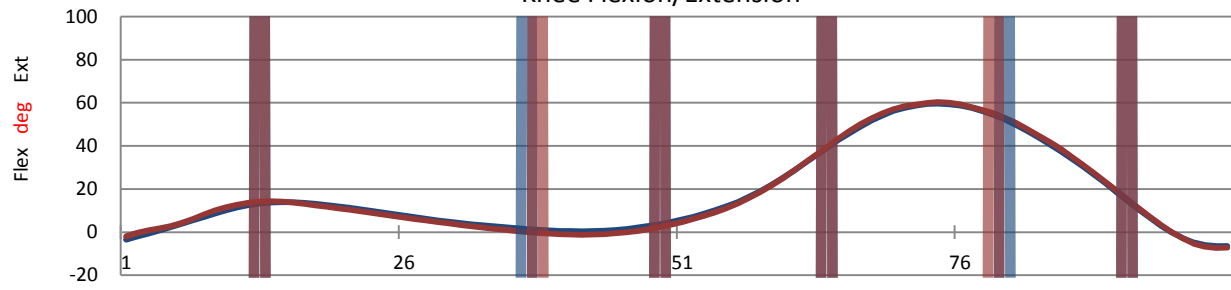
Date 6/16/2010



End of Gait Phases as Percent of Gait Cycle

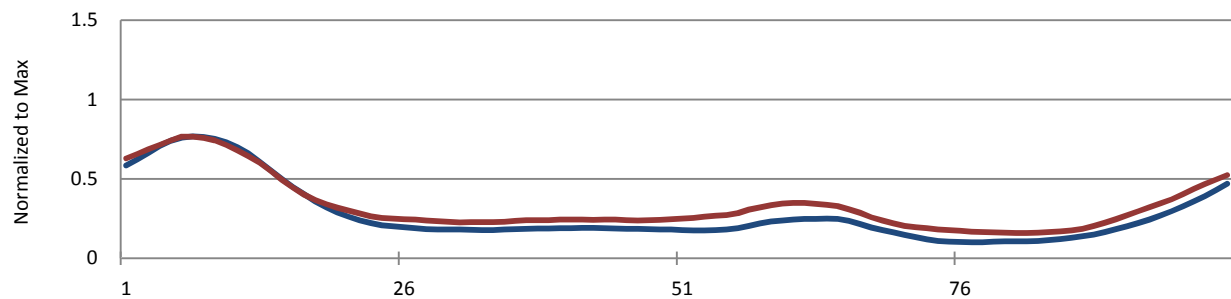
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm	2%	12%	31%	50%	62%	75%	87%	100%
Right		12%	36%	48%	63%	79%	90%	100%
Left		12%	37%	48%	63%	78%	90%	100%

Knee Flexion/Extension



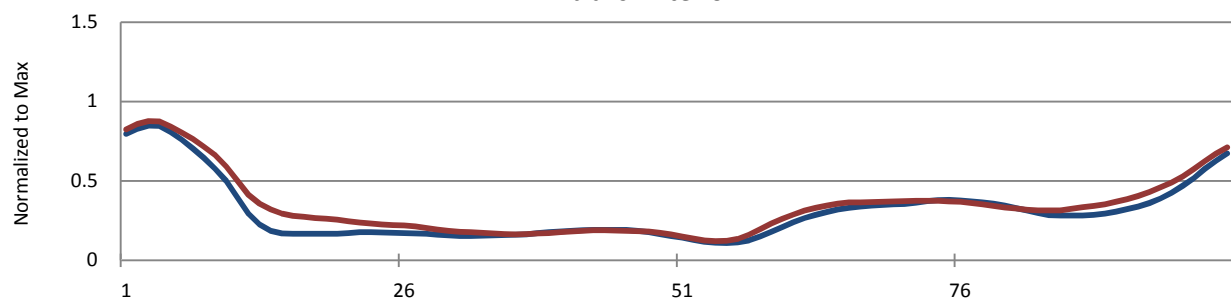
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		13.33	1.51	3.77	39.07	52.24	14.76	-6.37
Left		14.20	-0.24	2.39	39.63	55.13	15.41	-7.11

Rectus Femoris



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		0.61	0.19	0.18	0.25	0.11	0.20	0.47
Left		0.60	0.24	0.24	0.34	0.16	0.27	0.52

Tibialis Anterior

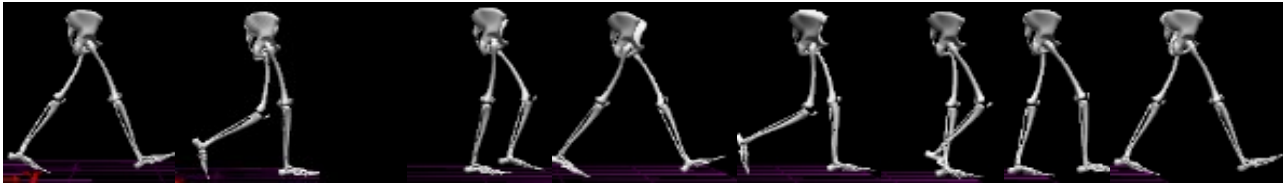


	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		0.22	0.16	0.17	0.30	0.34	0.32	0.67
Left		0.36	0.17	0.17	0.34	0.34	0.38	0.71

HIP KINEMATICS

Patient ID All Subject-HH

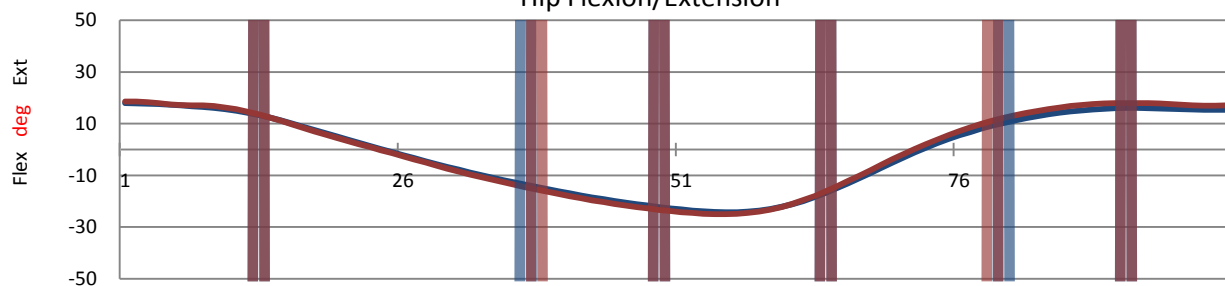
Date 6/16/2010



End of Gait Phases as Percent of Gait Cycle

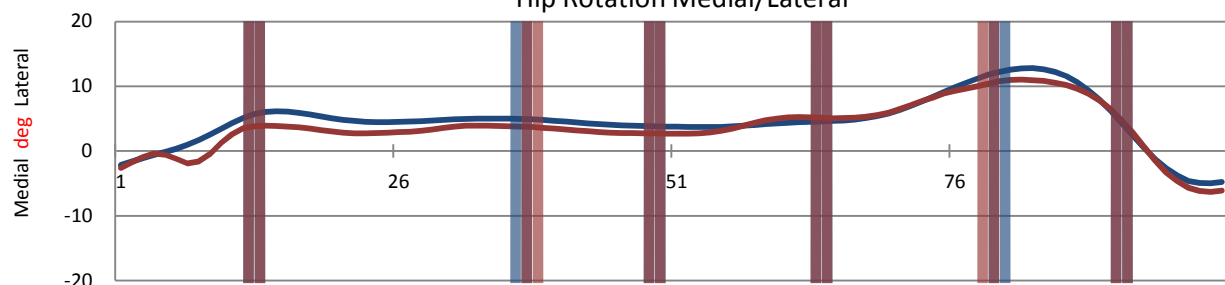
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm	2%	12%	31%	50%	62%	75%	87%	100%
Right		12%	36%	48%	63%	79%	90%	100%
Left		12%	37%	48%	63%	78%	90%	100%

Hip Flexion/Extension



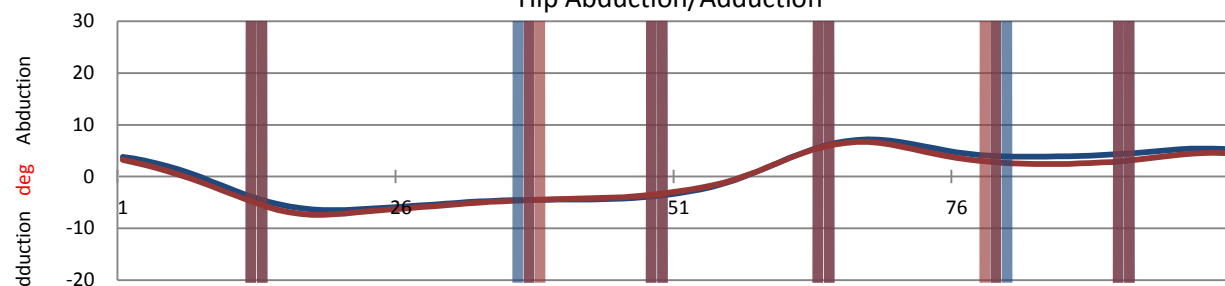
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		13.33	-13.65	-22.20	-16.75	10.30	15.99	15.27
Left		13.62	-15.51	-23.36	-16.12	11.15	18.03	17.07

Hip Rotation Medial/Lateral



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		5.69	4.96	3.82	4.59	12.24	4.35	-4.76
Left		3.83	3.69	2.71	5.14	10.38	4.80	-6.13

Hip Abduction/Adduction



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		-4.21	-4.54	-3.76	5.88	3.91	4.37	5.34

HIP KINETICS

Patient ID All Subject-HH

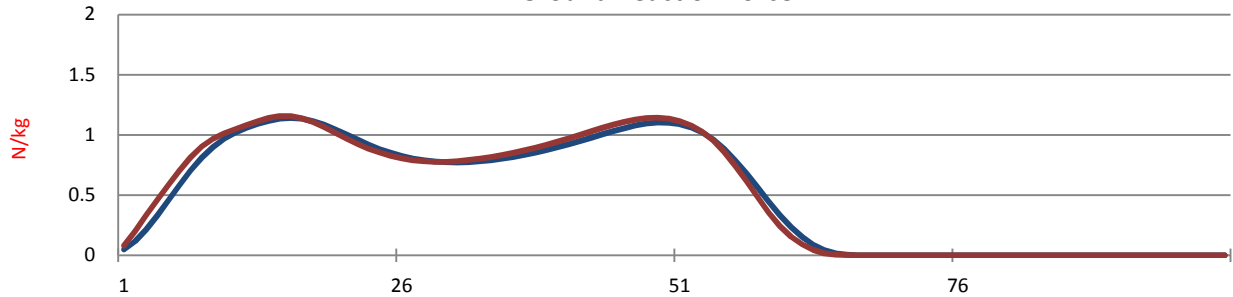
Date 6/16/2010



End of Gait Phases as Percent of Gait Cycle

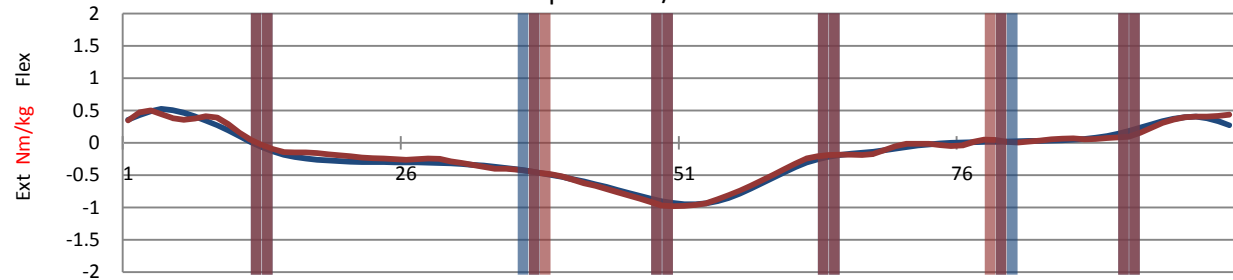
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm	2%	12%	31%	50%	62%	75%	87%	100%
Right		12%	36%	48%	63%	79%	90%	100%
Left		12%	37%	48%	63%	78%	90%	100%

Ground Reaction Force



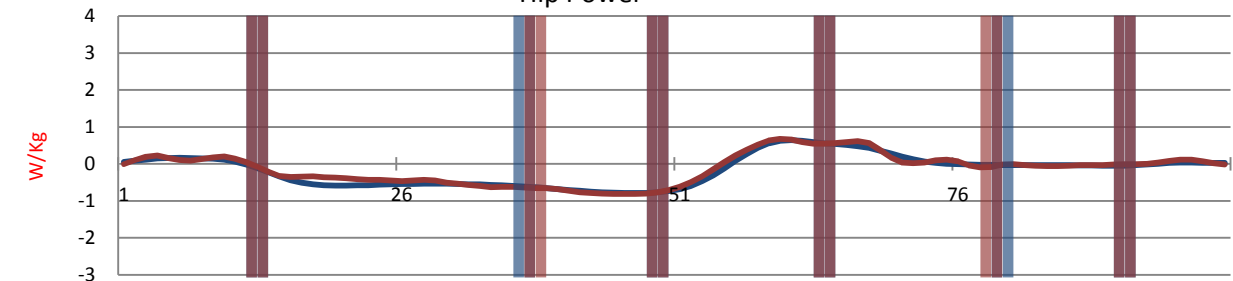
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		1.09	0.83	1.10	0.04	0.00	0.00	0.00
Left		1.11	0.89	1.14	0.02	0.00	0.00	0.00

Hip Flexion/Extension - Moment



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		13.83	-13.29	-22.03	-17.14	10.17	15.99	15.27
Left		13.89	-15.33	-23.28	-16.33	11.06	18.03	17.06

Hip Power



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		-0.12	-0.61	-0.77	0.55	-0.03	-0.05	0.02
Left		-0.08	-0.66	-0.78	0.54	-0.08	-0.01	-0.02

HIP EMG RMS

Patient ID All Subject-HH

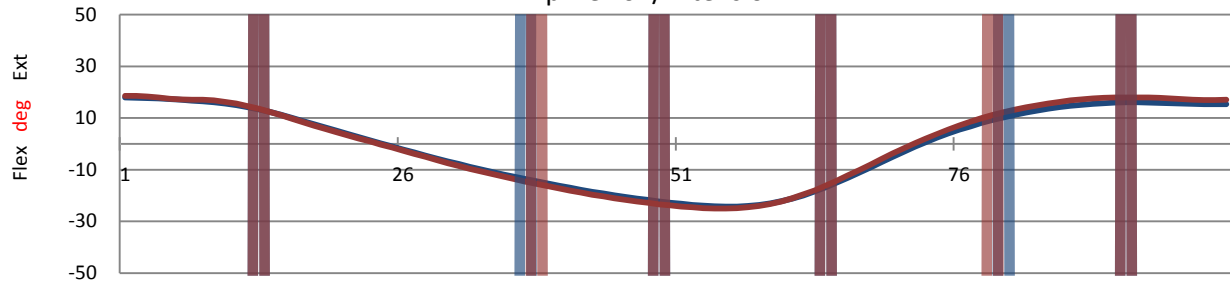
Date 6/16/2010



End of Gait Phases as Percent of Gait Cycle

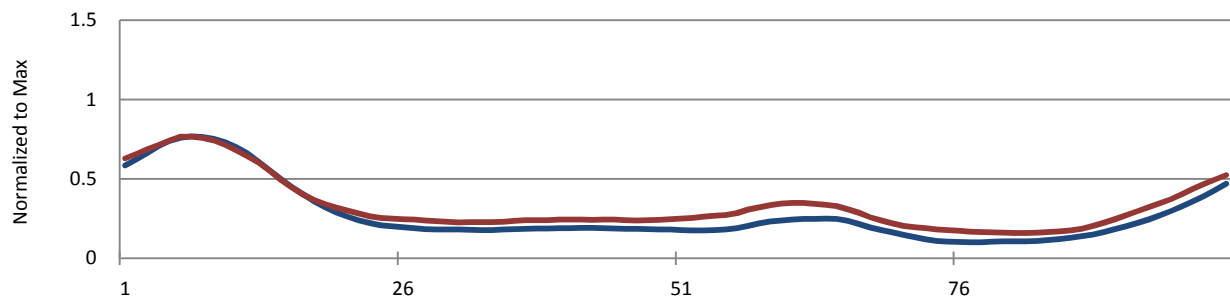
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm	2%	12%	31%	50%	62%	75%	87%	100%
Right		12%	36%	48%	63%	79%	90%	100%
Left		12%	37%	48%	63%	78%	90%	100%

Hip Flexion/Extension



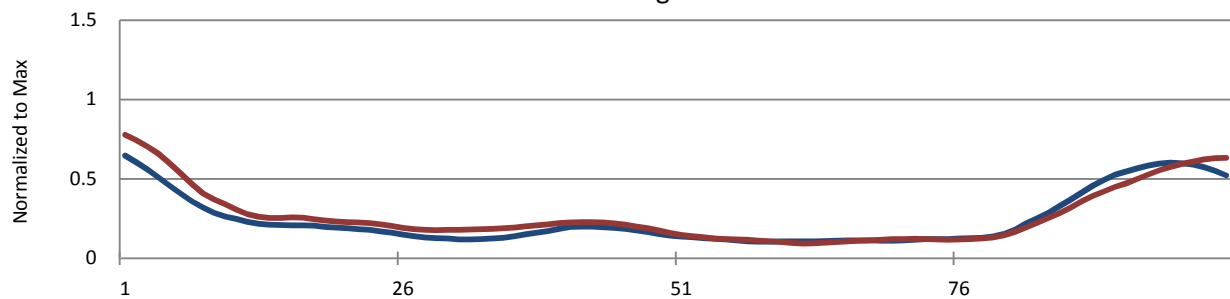
	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		-16.00	-5.52	-1.97	-26.62	-15.11	-12.64	-11.12
Left		-14.97	-5.22	-2.38	-28.16	-13.47	-10.92	-9.30

Rectus Femoris



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		0.61	0.19	0.18	0.25	0.11	0.20	0.47
Left		0.60	0.24	0.24	0.34	0.16	0.27	0.52

Hamstring



	IC	LR	MSt	TSt	PSw	ISw	MSw	TSw
Norm								
Right		0.22	0.15	0.15	0.11	0.15	0.55	0.52
Left		0.26	0.21	0.18	0.10	0.13	0.47	0.63