

MCU - HRM Cervical Evaluation



Patient Information

Patient Name: Mr. Chuck Wetherington

Start & Finish Date: Jun 05, 2007 - Jun 05, 2007

Report Print Date: June 12, 2007

Injury Date:

Employment Information

Occupation:

Employer:

Address: 1

Supervisor:

Work Status: Currently working

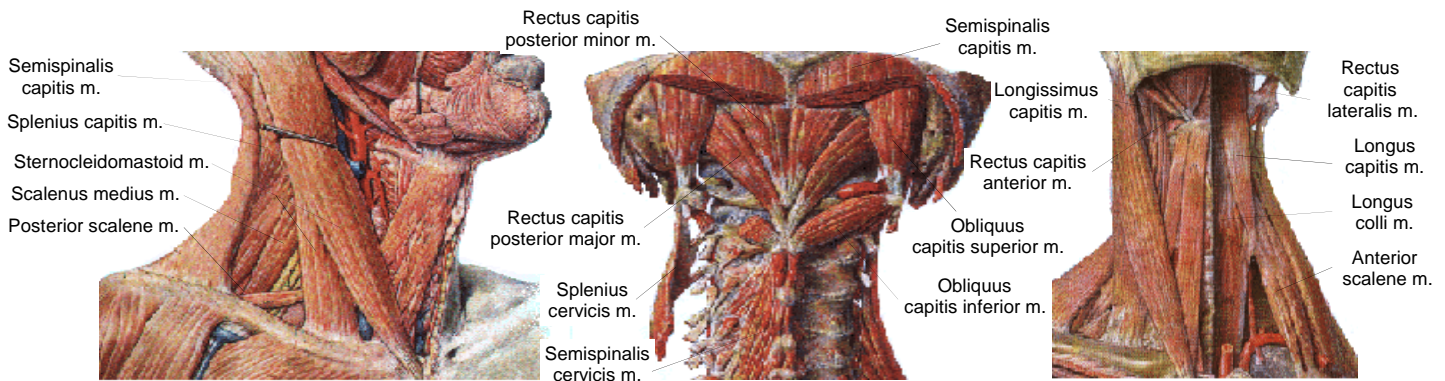
Health Card #: Not Applicable

Date of Birth:

Sex: Male

Height:

Weight:



The boxed red muscle names indicated pain during neutral isometric testing

Objective

Testing Summary

The following is a summary of objective findings determined during the cervical evaluation:

- Range of motion did not match normative values for extension.
- Range of motion was not symmetrical for rotation and lateral flexion.
- Consistent effort for range of motion was found with all ranges.
- Isometric testing was symmetrical for lateral flexion.
- Consistent effort for isometric strength testing was found with all ranges.
- Mr. Chuck Wetherington was pain-free during isometric strength testing.

Ken Johnson. PT

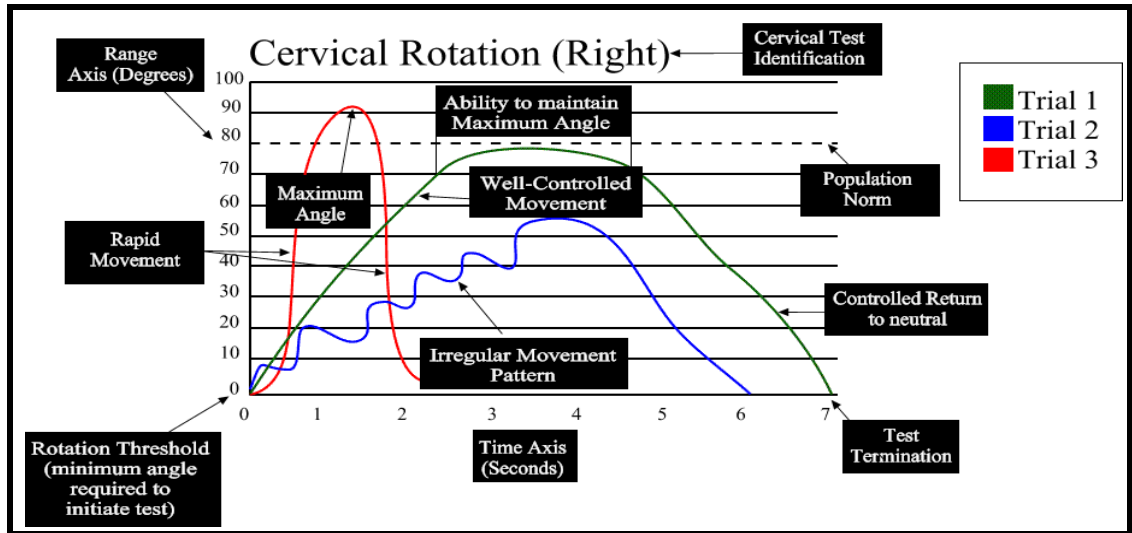
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All testing was completed using MCRP-Multi Cervical Rehabilitation Program, Data Management was compiled through MCU

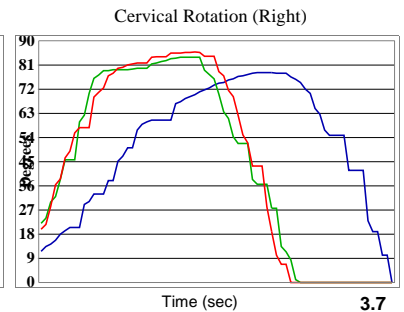
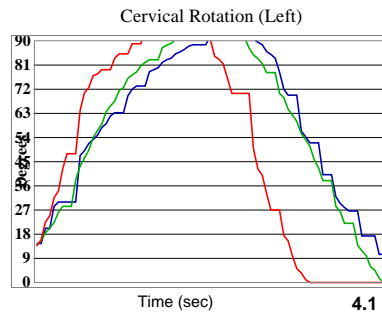
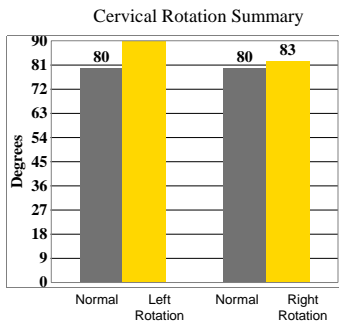
Objective Range of Motion Testing Data

Data Analysis Legend



Cervical Spine Range of Motion

Cervical Rotation



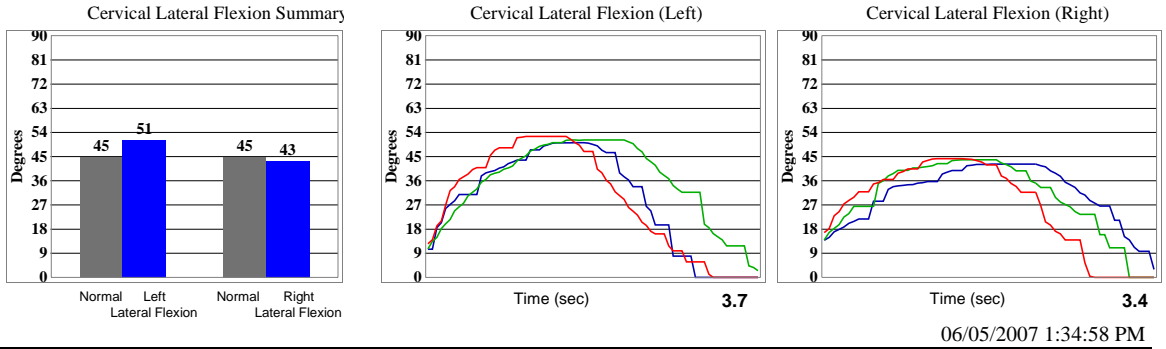
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Data Summary	Left	Right
Average Maximum Angle	94°	82.67°
Coefficient of Variation (%)	1%	4%
% of Normal	118%	103%
Pain Rating	0	0
Average Max. Angle % Difference	13.7%	

Mr. Chuck Wetherington reached an average maximum angle of 94 degrees for left cervical rotation and 82.67 degrees for right cervical rotation. This yields 13.7% difference between the sides. The coefficient of variation was 1% for left rotation and 4% for right rotation. Values greater than 15% may be an indicator of inconsistent effort. His left rotation is 118% of normal and right rotation is 103% of normal, based on American Medical Association Guidelines.



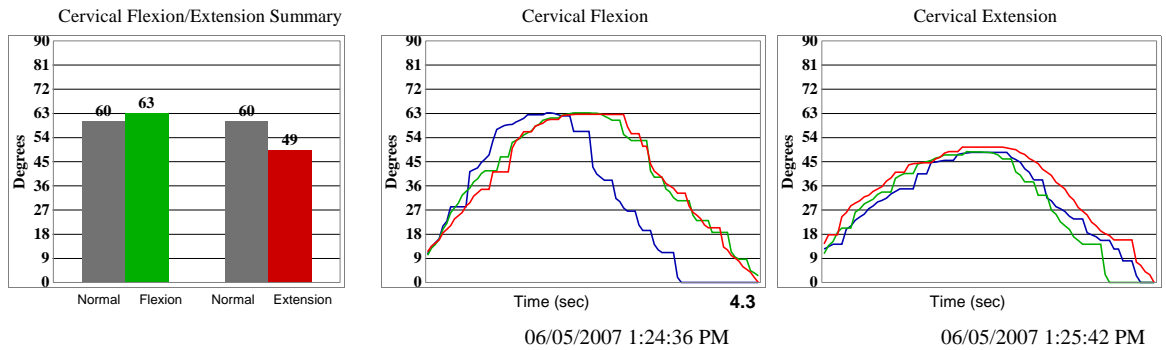
Cervical Lateral Flexion



Data Summary	Left	Right
Average Maximum Angle	51.3°	43.4°
Coefficient of Variation (%)	2%	2%
% of Normal	114%	96%
Pain Rating	0	0
Average Max. Angle % Difference	18.2%	

Mr. Chuck Wetherington reached an average maximum angle of 51.3 degrees for left cervical lateral flexion and 43.4 degrees for right cervical lateral flexion. This yields 18.2% difference between the sides. The coefficient of variation was 2% for left lateral flexion and 2% for right lateral flexion. Values greater than 15% may be an indicator of inconsistent effort. His left lateral flexion is 114% of normal and right lateral flexion is 96% of normal, based on American Medical Association Guidelines.

Cervical Flexion & Extension



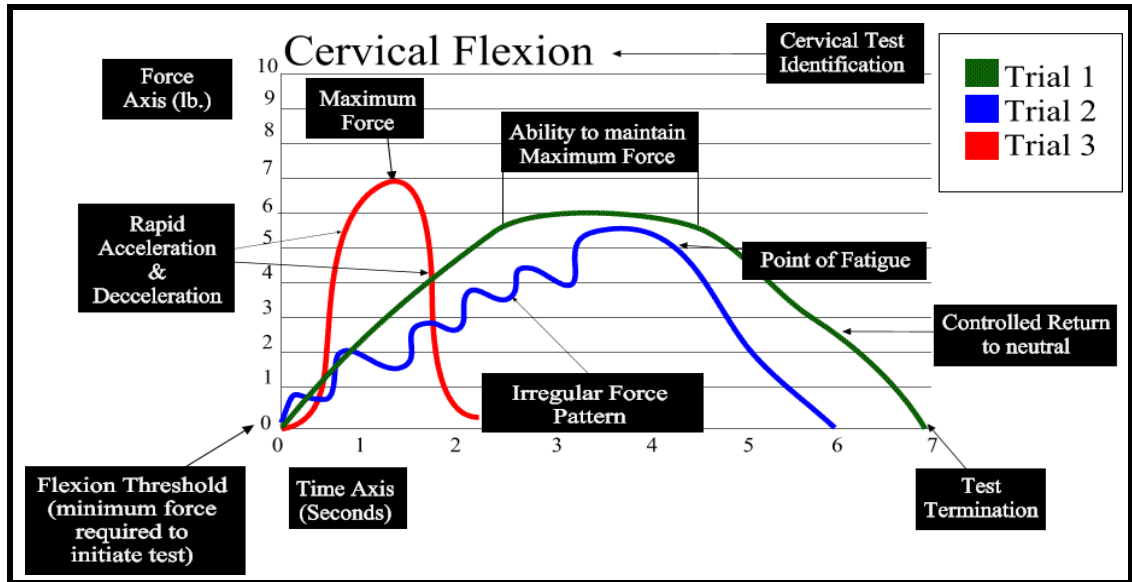
Data Summary	Flexion	Extension
Average Maximum Angle	63°	49.3°
Coefficient of Variation (%)	0%	2%
% of Normal	105%	82%
Pain Rating	0	0
Flexion & Extension % Difference	21.7%	

Mr. Chuck Wetherington reached an average maximum angle of 63 degrees for cervical flexion and 49.3 degrees for cervical extension. This yields 21.7% difference between flexion and extension range of motion. The coefficient of variation was 0% for flexion and 2% for extension. Values greater than 15% may be an indicator of inconsistent effort. His flexion is 105% of normal and extension is 82% of normal, based on American Medical Association Guidelines.



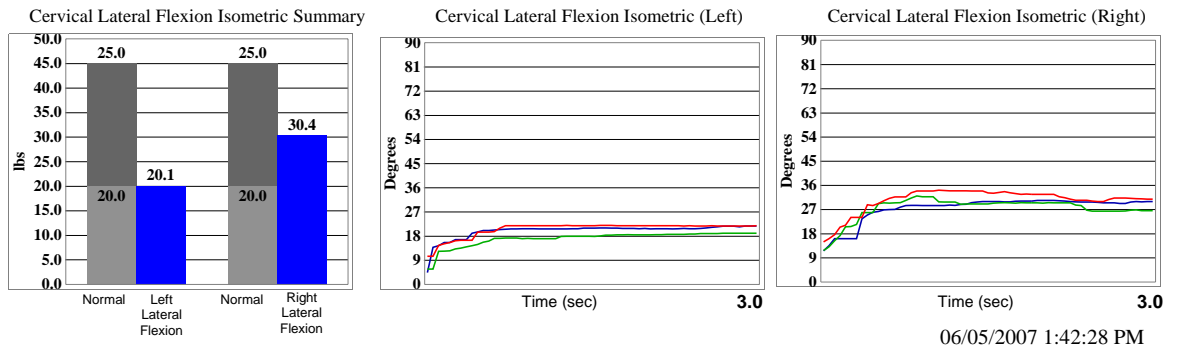
Objective Isometric Strength Testing Data

Data Analysis Legend



Cervical Isometric Strength

Lateral Flexion Strength



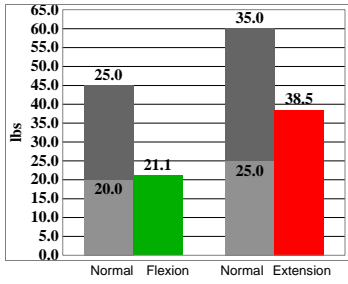
Data Summary	Left	Right
Average force (lbs.)	20.1 lbs.	30.4 lbs.
Coefficient of Variation (%)	8.1%	4.9%
Pain Rating	0	0
Average force % Difference	33.9%	

Mr. Chuck Wetherington reached an average maximum force of 20.1 lbs. for left cervical lateral flexion and 30.4 lbs. during right cervical lateral flexion. This yields 33.9% difference between the sides. The coefficient of variation was 8.1% for left lateral flexion and 4.9% for right lateral flexion. Values greater than 15% may be an indicator of inconsistent effort. Mr. Chuck Wetherington rated his pain during testing at 0 on a ten-point scale on the left, and 0 on the right.

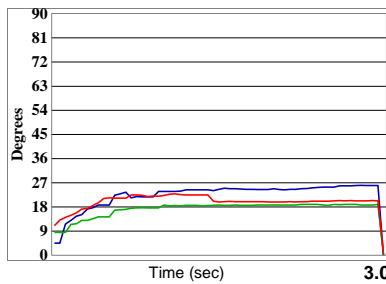


Flexion & Extension Strength

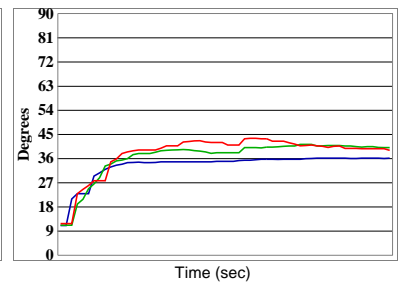
Cervical Flexion/Extension Isometric Summary



Cervical Flexion



Cervical Extension



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06/05/2007 1:39:54 PM

Data Summary	Flexion	Extension
Average force (lbs.)	21.1 lbs.	38.5 lbs.
Coefficient of Variation (%)	11%	6.4%
Pain Rating	0	0
Flexion & Extension % Difference	45.2%	

Mr. Chuck Wetherington reached an average maximum force of 21.1 lbs. for cervical flexion and 38.5 lbs. during cervical extension. This yields 45.2% difference between the isometric tests. The coefficient of variation was 11% for flexion and 6.4% for extension. Values greater than 15% may be an indicator of inconsistent effort. Mr. Chuck Wetherington rated his pain during testing at 0 on a ten-point scale during flexion, and 0 during extension.



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Cervical Isometric Testing

▶ BTE Angle Specific (BAS 45)

Flexion

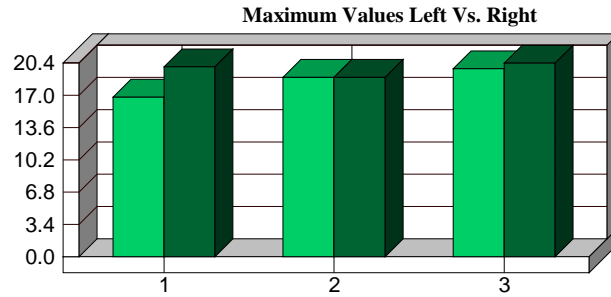
Test Date: Jun 05, 2007 1:49:45 PM

Initial Rotation Angle: 45 Left Pain Scale: 0

Initial Flexion Angle: 0 Right Pain Scale: 0

	Left (Lbs)	Right (Lbs)
Trial 1:	16.8	20.0
Trial 2:	18.9	18.9
Trial 3:	19.8	20.4

Average	18.5	19.8
Maximum	19.8	20.4
COV	7	3
% Diff L vs. R	6%	



Extension

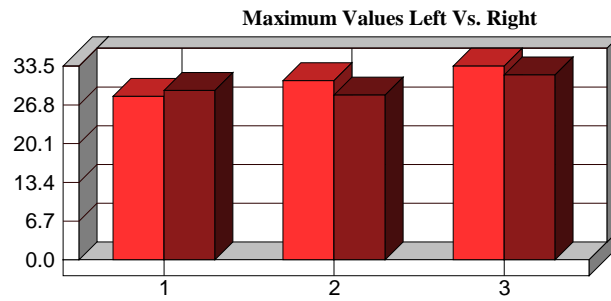
Test Date: Jun 05, 2007 1:54:57 PM

Initial Rotation Angle: 45 Left Pain Scale: 0

Initial Flexion Angle: 0 Right Pain Scale: 0

	Left Rotation Right Extension Strength (Lbs)	Right Rotation Left Extension Strength (Lbs)
Trial 1:	28.3	29.3
Trial 2:	31.0	28.5
Trial 3:	33.5	32.0

Average	30.9	29.9
Maximum	33.5	32.0
COV	7	5
% Diff L vs. R	3%	



Lateral Flexion

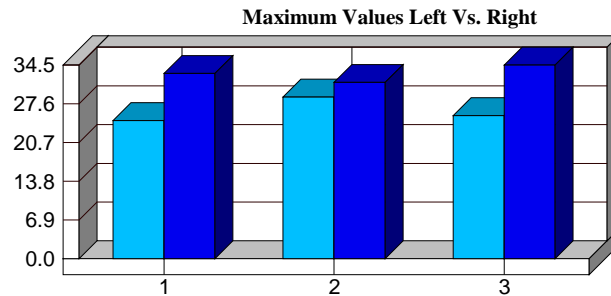
Test Date: Jun 05, 2007 2:02:23 PM

Initial Rotation Angle: 45 Left Pain Scale: 0

Right Pain Scale: 0

	Left (Lbs)	Right (Lbs)
Trial 1:	24.6	33.0
Trial 2:	28.8	31.4
Trial 3:	25.5	34.5

Average	26.3	33.0
Maximum	28.8	34.5
COV	7	4
% Diff L vs. R	20%	



BTE Angle Specific (BAS 25)

Flexion

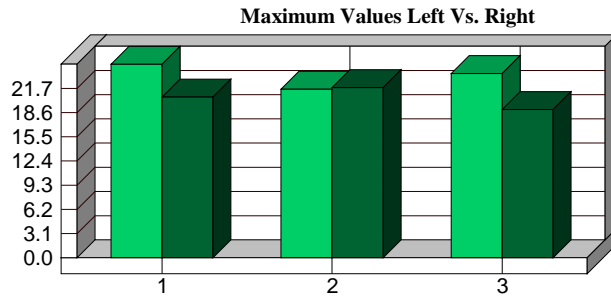
Test Date: Jun 05, 2007 1:46:58 PM

Initial Rotation Angle: 25 Left Pain Scale: 0

Initial Flexion Angle: 0 Right Pain Scale: 0

	Left (Lbs)	Right (Lbs)
Trial 1:	24.8	20.6
Trial 2:	21.6	21.8
Trial 3:	23.6	19.0

Average	23.3	20.5
Maximum	24.8	21.8
COV	6	6
% Diff L vs. R	14%	



Extension

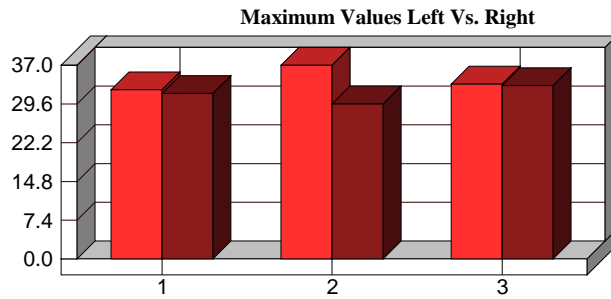
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Initial Rotation Angle: 25 Left Pain Scale: 0

Initial Flexion Angle: 0 Right Pain Scale: 0

	Left Rotation Right Extension Strength (Lbs)	Right Rotation Left Extension Strength (Lbs)
Trial 1:	32.3	31.6
Trial 2:	37.0	29.6
Trial 3:	33.4	33.1

Average	34.2	31.4
Maximum	37.0	33.1
COV	6	5
% Diff L vs. R	9%	



Lateral Flexion

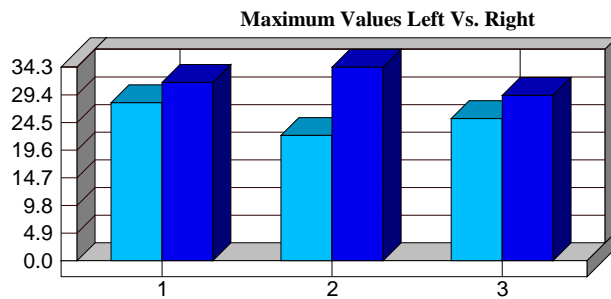
Test Date: Jun 05, 2007 1:58:32 PM

Initial Rotation Angle: 25 Left Pain Scale: 0

Right Pain Scale: 0

	Left (Lbs)	Right (Lbs)
Trial 1:	28.0	31.6
Trial 2:	22.2	34.3
Trial 3:	25.2	29.3

Average	25.1	31.7
Maximum	28.0	34.3
COV	9	6
% Diff L vs. R	21%	



BTE Neutral Isometric (BAS)

Flexion

Test Date: Jun 05, 2007 1:38:02 PM

Initial Rotation Angle: 0

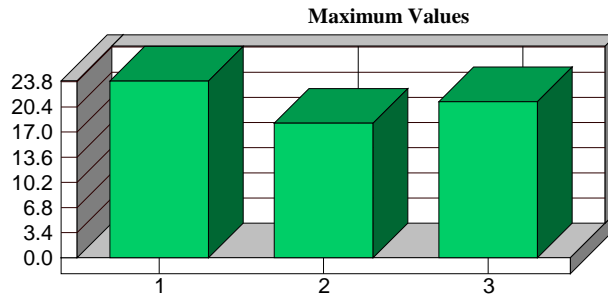
Initial Flexion Angle: 0

Pain Scale: 0

Neutral (Lbs)

Trial 1:	23.9
Trial 2:	18.2
Trial 3:	21.1

Average	21.1
Maximum	23.9
COV	11



Extension

Test Date: Jun 05, 2007 1:39:54 PM

Initial Rotation Angle: 0

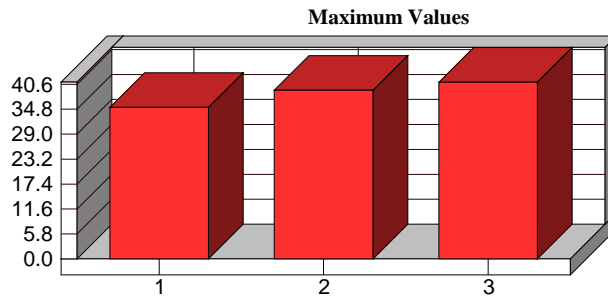
Initial Flexion Angle: 0

Pain Scale: 0

Neutral (Lbs)

Trial 1:	35.2
Trial 2:	39.2
Trial 3:	41.1

Average	38.5
Maximum	41.1
COV	6



Lateral Flexion

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Initial Rotation Angle: 0

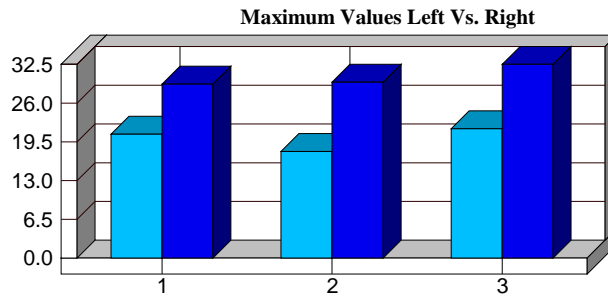
Left Pain Scale: 0

Right Pain Scale: 0

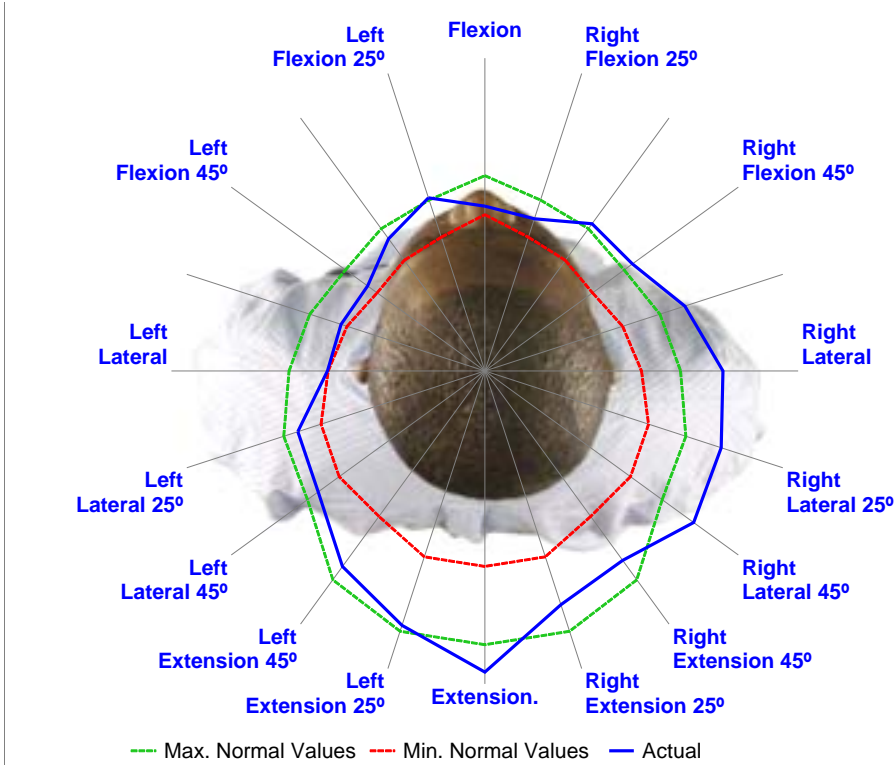
Left (Lbs) | Right (Lbs)

Trial 1:	20.8	29.2
Trial 2:	17.9	29.5
Trial 3:	21.7	32.5

Average	20.1	30.4
Maximum	21.7	32.5
COV	8	5
% Diff L vs. R	34%	



Strength Testing Data - Superior Axial View



Target Strength Range									
	Flexion			Extension			Lateral Flexion		
Male	Target	Left	Right	Target	Left	Right	Target	Left	Right
Neutral	20 - 25 lbs	21.1		25 - 35 lbs	38.5		20 - 25 lbs	20.1	30.4
25°	18 - 23 lbs	23.3	20.5	25 - 35 lbs	34.2	31.4	22 - 27 lbs	25.1	31.7
45°	17 - 22 lbs	18.5	19.8	23 - 33 lbs	30.9	29.9	23 - 28 lbs	26.3	33.0

Green = Within Target Strength Range
 Red = Below Target Strength Range
 Blue = Above Target Strength Range

