

**Your Evaluation Center**

Your Street, Your City, ST

Phone: 123-456-7890 FAX: 123-456-9870

**FUNCTIONAL
CAPACITY
EVALUATION**

Ms. Edna Benoiter
Hastings Insurance Co.
100 American Way
New York, NY 10000

RE: Sample Patient (12345678)**PURPOSE OF ASSESSMENT**

Mr. Patient has completed a course of physical therapy for Lumbar Sprain/Strain sustained in an accident at work. Treating physician seeks to determine if he currently meets the essential physical demands of his own job, or to determine appropriate restrictions or modifications that would permit Mr. Patient to return to work on a full-time basis.

RELIABILITY AND CONSISTENCY OF EFFORT

The results of this evaluation suggest that Mr. Patient gave a reliable effort, with 68 of 70 consistency measures within expected limits.

FUNCTIONAL ABILITIES

Mr. Patient's demonstrated abilities meet specified job demands in the following categories: Walk, Carry - 11 Lb, Carry - 21 Lb, Carry - 51 Lb, Push Cart - 41 Lb, Pull Cart - 41 Lb, Balance, Stoop, Crouch, Kneel, Climb Stairs, Reach to Front, Reach Side/Across, Reach with Weight, Handling, Bi-Manual Handling, Fingering, Bi-Manual Fingering, Feeling, Eye-Hand-Foot, Tool Use, Stand/Sit, Sitting, Standing.

FUNCTIONAL LIMITATIONS

Mr. Patient is unable to meet job demands in the following categories: Mid Lift, Low Lift, Full Lift.

CONCLUSIONS

Mr. Patient can return to work with a temporary modification of duties. He is limited to the medium lifting category (less than 50 lb) until a re-evaluation can be performed in six weeks.

Sincerely,

Peter Starr, PT

Functional Abilities Summary

Mr. Patient's demonstrated abilities in this evaluation (FCE) are summarized below. A value of **n/a** indicates the activity was not included in the evaluation. If job demands were provided with this evaluation, functional abilities are compared to the corresponding job demand level. FCE performance below job demand is shown as a **Yes** in the deficit column, while mixed performance (both above and below the job demand level) is shown as **?** indicating a possible deficit.

Activities Rated by Strength Level						
Activity	FCE Performance (PDC Category)	Equivalent Strength Level			Job Demand (PDC Category)	Deficit
		Occasional 0 to 2.6 hours/day	Frequent 2.7 to 5.3 hours/day	Constant 5.4 to 8 hours/day		
Low Lift (floor to knuckle)	Medium	21 - 50 lb	11 - 25 lb	1 - 10 lb	Very Heavy	Yes
Mid Lift (knuckle to shoulder)	Medium	21 - 50 lb	11 - 25 lb	1 - 10 lb	Very Heavy	Yes
High Lift (shoulder and above)	n/a					
Full Lift (floor to shoulder)	Medium	21 - 50 lb	11 - 25 lb	1 - 10 lb	Very Heavy	Yes
Carry	Very Heavy	over 100 lb	over 50 lb	over 20 lb	Heavy	No
Push (static)	Heavy	51 - 100 lb	26 - 50 lb	11 - 20 lb	Medium	No
Pull (static)	Medium	21 - 50 lb	11 - 25 lb	1 - 10 lb	Medium	No
Overall Strength Category	n/a					
Activities Rated by Frequency and Duration						
Activity	FCE Performance				Job Demand	Deficit
Walk	Constant				Constant	No
Climb Stairs	Constant				Occasional	No
Balance	Constant				Frequent	No
Stoop	Frequent				Occasional	No
Kneel	Constant				Occasional	No
Crouch	Frequent				Occasional	No
Crawl	Constant				Not Required	No
Reach (front)	Left: Constant		Right: Constant		Frequent	No
Reach (side)	Left: Constant		Right: Constant		Frequent	No
Handling	Left: Constant	Right: Constant		Both: Constant	Frequent	No
Fingering	Left: Constant	Right: Constant		Both: Constant	Frequent	No
Feeling	Constant				Frequent	No
Eye-hand-foot	Constant				Frequent	No
Sitting	Frequent				Frequent	No
Standing	Frequent				Frequent	No
Push Cart	Constant				Frequent	No
Pull Cart	Frequent				Occasional	No
Other Activities						
Grip/Grasping Strength (Dynamometer Position 2)	Left: 83.8 lb		Right: 94.8 lb			low
Cardiovascular Fitness	Above average					



Your Evaluation Center

Your Street, Your City, ST 00000

Phone: 123-456-7890 FAX: 123-456-9870

FUNCTIONAL CAPACITY EVALUATION

PATIENT INFORMATION:

Patient: **Sample Patient**

ID#: **12345678**

DOB: **11/29/72** Age: **38**

Address: **1166 Jamestown Road**
Williamsburg, VA 23185

Sex: **M** Dom. Hand: **R**

Height: **71** in Weight: **185** lb

Phone (H): **(757) 555-1212**

Phone (W): **(757) 555-9191**

Evaluation Date: **3/24/2010**

Occupation: **Packaging Technician**

... Referred by: **Treating Physician**

Employer: **Virginia Printing**

... Resting Pulse Rate: **71**

Insurance Co: **Hastings Insurance**

... Blood Pressure (sitting): **130/90**

Physician: **Michael Yang, MD**

Tested By: **Peter Starr, PT**

Attorney: **Thompson, Rogers**



Injury: Diagnosis	Side	Injury Date	ICD-9 Code
Sprain/Strain of Knee/Leg NEC	B	1/12/2010	844.8
Sprain/Strain Lumbar Region	B	1/12/2010	847.2

JOB INFORMATION:

Company: **Virginia Printing**

Representative: **Albert Bessemer**

Address: **1004 Industrial Parkway**

Williamsburg, VA 23185

Phone: **757-555-1212**

FAX: **757-555-1234**

Job Title: **Packaging Technician**

Job Subtitle: **n/a**

Employment History:

May 2004 to present: Virginia Printing - inspection and packaging

Jul 1996 to Feb 2004: Goodwill Industries - warehouse worker

Sep 1994 to Jun 1996: Home Quarters - Stocker

Education:

Tidewater High School

HISTORY:

Mechanism and History of Injury:

Mr. Patient was referred to our clinic as a result of an injury sustained on the assembly line at his place of employment. He stated that he was lifting a carton from a conveyor when he slipped and fell. He indicated that as he fell, he tried to push the carton away so that it would not fall on him. He landed in an awkward position and felt a sharp pain in his lower back, as well as his right hip and knee that were under him when he fell. He was sent to the Main Street Clinic where he was diagnosed with a severe Lumbar Strain/Sprain and a mild Knee Sprain. The treating physician recommended rest, analgesics, and anti-inflammatory drugs.

Therapies:

Treatment for acute Lumbar Strain/Sprain

Physical Therapy, Lumbar strength, Lumbar flexibility

Medications:

Tylenol w/Codine

Intake Interview:

Patient reported on time, and was cooperative for interview and testing. He indicated that his back was bothering him somewhat as he sat for his interview, and displayed some postural adjustments consistent with his symptoms. He said that his physical therapy was helpful, but that the pain in his back has not gone away completely.

SUMMARY:

Mr. Patient demonstrated a reliable effort in this evaluation, with 68 of 70 consistency measures recorded as reliable *except those* as noted in Table 1, below.

Table 1 – Reliability and Consistency of Effort					
Test	Date	Result	Expected	Measure	Reliable
H HIGH NEAR LIFT		64.5 LB	< 60.8 LB	IHSC	No
Straight Leg Raise		SLR=62	< 17 + 10	SLR	No

Mr. Patient's perceptions regarding his ability to function are illustrated in the Activity Rating, Pain Drawing and Perceived Exertion Charts presented below.

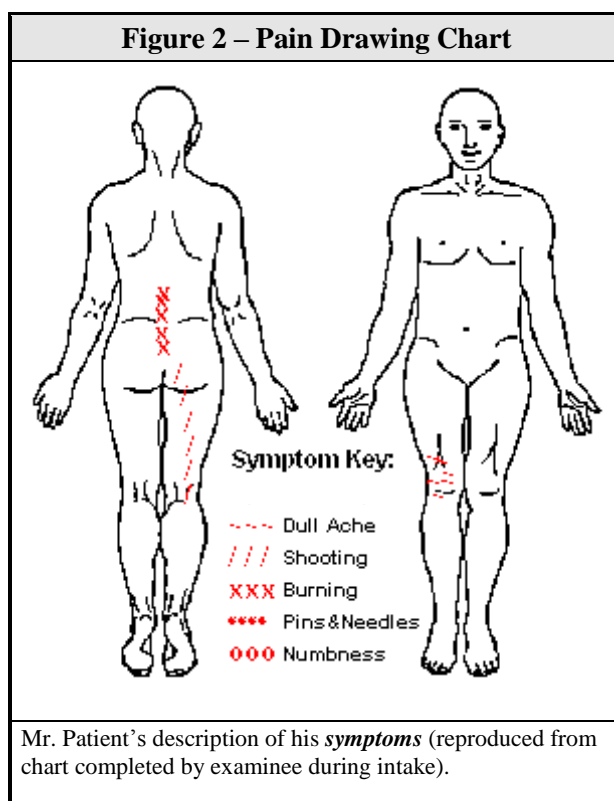
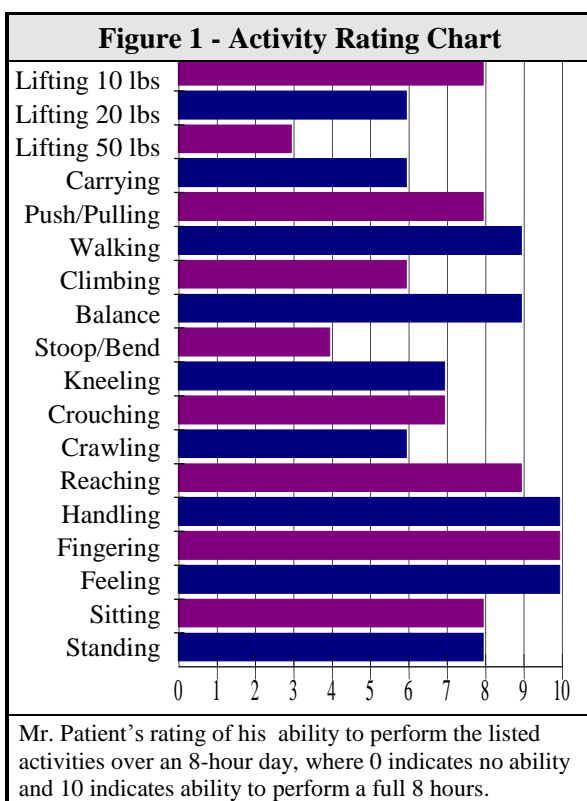
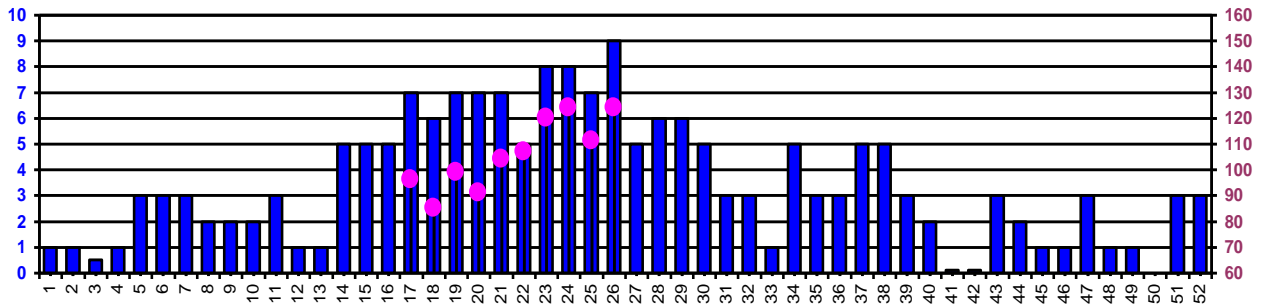


Figure 3 – Perceived Exertion Chart

Mr. Patient's perceived exertion *during this evaluation*. 0 indicates no exertion, and 10 is the highest level of exertion one could imagine. The scale is non-linear with a value of 2 for **light**, 3 for **moderate**, 5 for **strong** and 7 for **very strong**. If heart rate values were measured during a test, the peak heart rate will appear over the exertion level bar as a shaded circle using the scale shown to the right.



Physical Capacity Summary:

Mr. Patient's physical capacity, as related to overall body strength, cardiovascular condition and range of movement is summarized below. Cardiovascular condition is rated on the five-level scale of Excellent, Above Average, Average, Below Average and Poor. Range of movement is considered within normal limits except as reported below.

Strength Rating		Cardiovascular Condition		
Dictionary of Occupational Titles, Physical Demand Level		Evaluated using: CAFT		
Overall Strength Category	Medium	Rating: Above average		
Range of Movement				
Joint/Movement		Measured	Norm	Deficit
Lumbar Extension		14	25	yes
Thoracic Rotation L		21	30	yes
Thoracic Rotation R		21	30	yes
Hip Internal Rotation L		22	40	yes
Hip Internal Rotation R		12	40	yes

ARCON MTM Functional Abilities Summary

Methods-Time Measurement (MTM) data provides a quantifiable description of the functions required of a worker in the performance of certain physical job demands. An evaluatee's demonstrated ability in the assessment is compared to the MTM Industrial Standard (IS), which is the time an average worker with average training could perform the listed activity, assuming the activity is performed over an average eight hour day. Percent of Industrial Standard (%IS) is the evaluatee's demonstrated ability as a percent of the Industrial Standard, where 100% and up indicates performance at or above the Standard, while below 100% indicates performance below the Standard.

Figure 1 – Percent of Industrial Standard Rating Chart																
Activity	Time	CV ¹	%IS	<30	40	50	60	70	80	90	100	110	120	130	140+	
Walk - 12 Ft	11:56	2	106.5													
Carry - 11 Lb	12:05	2.3	138.3													
Carry - 21 Lb	12:05	2.3	134.6													
Carry - 51 Lb	12:05	1.4	144.3													
Push Cart - 41 Lb	12:09	5.5	108													
Pull Cart - 41 Lb	12:09	2.6	79													
Balance - 12 paces	12:11	3	136													
Crawl - 8 Ft	01:02	2	128													
Stoop	12:18	2.7	76.3													
Crouch	12:20	9	97.1													
Kneel	12:25	5.5	114.9													
Climb Stairs - 10 stairs	12:14	1.7	121.7													
Reach to Front (L)	12:29	<u>5.3</u>	171.3													
Reach to Front (R)	12:29	<u>6.5</u>	150.2													
Reach Side/Across (L)	12:33	<u>6.1</u>	132.7													
Reach Side/Across (R)	12:33	<u>5.4</u>	142.9													
Reach with Weight	12:35	6.2	122													
Handling	12:38	6.8	136.3													
Bi-Manual Handling	12:40	4.8	153.6													
Fingering	12:45	7.2	110.2													
Bi-Manual Fingering	12:47	6.8	138.4													
Feeling	12:49	5.9	116.4													
Eye-Hand-Foot	12:42	7.3	119.1													
Tool Use	12:52	3.7	127.7													
Stand/Sit	12:33	1.7	102.9													
				<30	40	50	60	70	80	90	100	110	120	130	140+	
PDC Category →				Occasional ²					Frequent ³			Constant ⁴				

¹ **Coefficient of Variance.** If value is underlined, CV calculated for multiple test sets. For CV > 10%, value is shaded to call attention to results that may indicate a problem in consistency or ability to perform this task.

² **Occasional** - allows 31-70% Rest Allowance Standard (RAS) from the IS, or activity performed 0 - 2.6 hours/day

³ **Frequent** - allows up to 30% RAS from the IS, or activity performed 2.7 - 5.33 hours/day

⁴ **Constant** - allows no RAS, or activity performed 5.33 - 8 hours/day

ARCON ST - Static Strength Report:

The patient was evaluated using the ARCON ST static strength testing system. This process is designed to quantify an individual's ability to lift, push, or pull in various common work postures and to compare demonstrated strength to essential job demands and/or safe lifting recommendations based on research conducted for the National Institute for Occupational Safety and Health (NIOSH). "Occasional Lift" is calculated as 50% of the "Avg Force" demonstrated value and represents a recommended safe occasional lifting value for this activity (*note: a 50-55% recommended safe lifting range is considered conservative, a 60-65% range moderate, and a 70-75% range moderately aggressive in relation to long-term safety in performing similar activities at work*).

<i>Individual Test Results</i>		Strength Data		Job Related Strength and Lifting Recommendations [‡]		
TASK NAME	DATE	Avg Force	CV [†] (%)	Desired Strength	% of Desired	Occasional Lift (Table ST1)
FLOOR LIFT	3/24/2010	94.5 lb	13.5	100 lb	94.5 %	47 lb (Medium)
H FLOOR LIFT	3/24/2010	34.4 lb	n/a			
TORSO LIFT (1)	3/24/2010	63.1 lb	2.0	100 lb	63.1 %	32 lb (Medium)
H TORSO LIFT	3/24/2010	95.5 lb	n/a			
HIGH NEAR LIFT (2)	3/24/2010	91.3 lb	6.1	n/a	n/a	46 lb (Medium)
H HIGH NEAR LIFT	3/24/2010	64.5 lb	n/a			

("n/a" indicates results that are not available or applicable for the listed task)

The patient's heart rate was monitored during one or more of the ST tests in order to determine if the patient was performing at a maximal effort. Population studies[§] indicate that an appropriate elevation in heart rate should follow a maximal whole-body exertion. The table below shows average pre and post exertion heart rates, the actual change, and the *expected* (population average) and *minimum acceptable* (one standard deviation below average) increase. If the patient demonstrated *at least* the minimum increase, a valid effort is reported.

<i>Heart Rate Results</i>		Measured Heart Rates			Comparison to Norms		
TASK NAME	DATE	Pre-exertion	Post-exertion	Change	Expected Increase	Minimum Acceptable Increase	Valid?
FLOOR LIFT	3/24/2010	83	96	13	21.4	10.2	Yes
H FLOOR LIFT	3/24/2010	93	85	-8	21.4	10.2	No
TORSO LIFT	3/24/2010	81	99	18	21.4	10.2	Yes
H TORSO LIFT	3/24/2010	60	91	31	21.4	10.2	Yes
HIGH NEAR LIFT	3/24/2010	83	104	21	19.7	9.0	Yes
H HIGH NEAR LIFT	3/24/2010	93	107	14	19.7	9.0	Yes

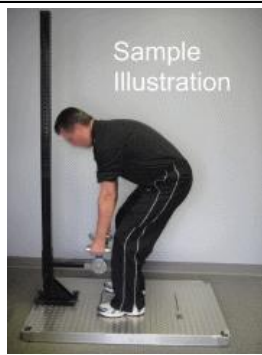
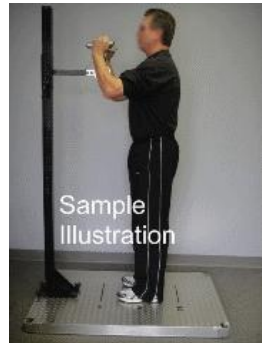
[‡] Donald B. Chaffin, Ph.D.; Gary D. Herrin, Ph.D.; W. Monroe Keyserling, M.S.; "Pre-Employment Strength Testing, An Updated Position", Journal of Occupational Medicine, Vol 20. No.6, June, 1978.

[†] Based on the NIOSH guideline for validity, test results that exhibit a coefficient of variation (CV) greater than or equal to 15% cannot be considered as valid, consistent and reproducible.

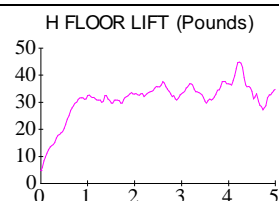
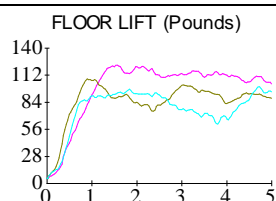
[§] "Assessing Reliability of Performance in the Functional Capacity Assessment", Journal of Disability, Volume 3, Numbers 1-4, July, 1993.

As an additional means of determining if the patient gave a full and consistent effort, certain tests were repeated with the patient being asked to move either 10 inches closer to or 10 inches farther away from the lifting handles. Population studies[¥] indicate that such a change should produce a 33% or greater *increase* in strength when moving closer, and a 33% or greater *decrease* in strength when moving farther away. When the expected change of at least 33% is **not** observed, an *Inappropriate Horizontal Strength Change (IHSC)* is reported by assigning a **FAIL** status to indicate inconsistent performance.

<i>I H S C Results</i>		Repeated Test		Strength Change %		
Task Name and Distance	Avg Force	Distance	Avg Force	Expected	Actual	Status
FLOOR LIFT: H = 10 in	94.5 lb	H = 20 in	34.4 lb	< -33 %	-63 %	PASS
TORSO LIFT: H = 15 in	63.1 lb	H = 5 in	95.5 lb	> 33 %	51 %	PASS
HIGH NEAR LIFT: H = 10 in	91.3 lb	H = 20 in	64.5 lb	< -33 %	-29 %	FAIL

<i>COMMENTS (referenced by number from test result table)</i>	Comment Picture
(1) Patient showed pain symptomatology during back lift. Patient stated 6/10 pain in low back lifting with his low back. Appeared to be trying to lift too much weight, leaning back. Third lift was acceptable. See lumbar flexion during lift.	
(2) Patient states no increased pain with shoulder lift. Again third lift only acceptable effort due to rising on toes apparently trying for more effort. Must lift correctly or heart rate increase is not valid.	

ST Test Graphs (in order of Test Results)



[¥] "Horizontal Strength Changes: An Ergonomic Measure for Determining Validity of Effort in Impairment Evaluations", Journal of Disability, Volume 3, Numbers 1-4, July, 1993.

ST Test Graphs (in order of Test Results)

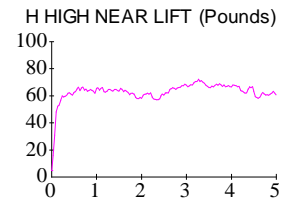
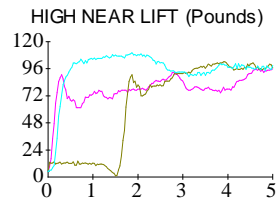
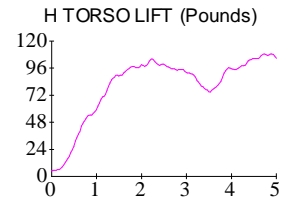
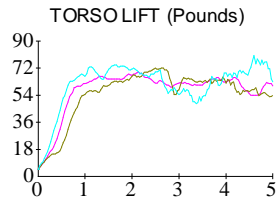


Table ST1 - Physical Demand Characteristics Of Work

(Dictionary of Occupational Titles - Volume II, Fourth Edition, Revised 1991)

Physical Demand Level	OCCASIONAL 0-33% of the workday	FREQUENT 34-66% of the workday	CONSTANT 67-100% of the workday
Sedentary	1 - 10 lb. (< 5 kg.)	Negligible	Negligible
Light	11 - 20 lb. (5 - 9 kg.)	1 - 10 lbs. (< 5 kg.)	Negligible
Medium	21 - 50 lb. (10 - 22 kg.)	11 - 25 lbs. (5 - 11 kg.)	1 - 10 lbs. (< 5 kg.)
Heavy	51 - 100 lb. (23 - 45 kg.)	26 - 50 lbs. (12 - 23 kg.)	11 - 20 lbs. (5 - 9 kg.)
Very Heavy	Over 100 lb. (> 45 kg.)	Over 50 lbs. (> 23 kg.)	Over 20 lbs. (> 9 kg.)

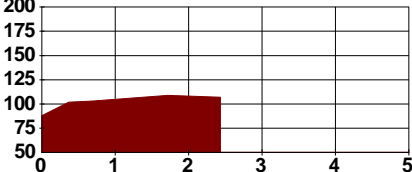
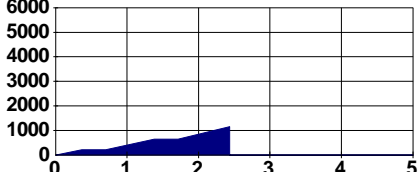
ARCON LC - Dynamic Lifting Capacity Report:

The patient was evaluated using the ARCON LC *Dynamic Lifting Capacity* system. This system is designed to quantify an individual's dynamic lifting capacity (strength). The ARCON LC is based on the PILE (Progressive Isoinertial Lifting Evaluation) Protocol[†] developed at the University of Texas Southwestern Medical Center at Dallas. This protocol has been adapted and enhanced for automated test sequencing and data collection to provide safe, efficient and accurate administration of the test. In addition, results are correlated to the appropriate U.S. Department of Labor's *Physical Demand Characteristic Level* (PDC - see **Table LC3**) for application to the competitive labor market.

The test consists of repeatedly lifting and lowering a weighted box to a shelf set at a standard height, during a fixed testing interval (four lifts in 20 seconds when assessing **frequent** lifting ability, and one lift in 10 seconds when assessing **occasional** lifting ability). The patient's heart rate is measured continuously during the test, and the box is weighed and lifts are counted using a scale located on the lifting shelf. Box weight starts at a low level and is progressively increased until one of the endpoints described in **Table LC2** are achieved.

The patient is also asked to rate his or her perception of the weight at each level or cycle on a scale of 1 to 9 (see **Table LCI**). A rating of 8 or 9 is interpreted as "excessive discomfort", and terminates the test (psychophysical endpoint). The patient's maximum safe lifting weight (shown in bold face in the "weight" column of the results table below) is the weight lifted in the last **completed** cycle with a **perceived** weight level of 8 or less. The patient's PDC Level is obtained by comparing the safe lifting weight to the weight range for that level as shown in Table LC3.

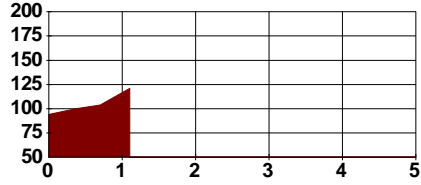
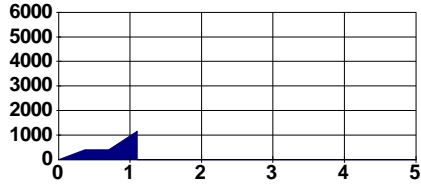
<i>Floor to Knuckle Frequent (1)</i>				<i>0 in. to 30 in. lift</i>		<i>4 lifts/cycle</i>		
Heart Rate: Start = 88 ; 75% target = 136 ; 85% limit = 154						Weight Limit = 99 lb		
	Frequent PDC Level = Heavy (26 - 50 lb)					Endpoint = Psychophysical		
Cycle #	Weight	Perceived	Reps	HR Lifting	HR % Max	Total Work	Post Cycle HR	
1	11	4	4	102	56	220	103	
2	21	6	4	107	59	640	109	
3	26	7	4	107	59	1160	0	

Test Graphs (Heart Rate and Work) vs. Elapsed Time	Heart Rate (beats/min)		Cumulative Work (lb-ft)	
				

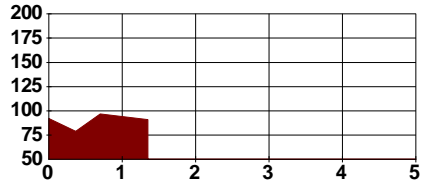
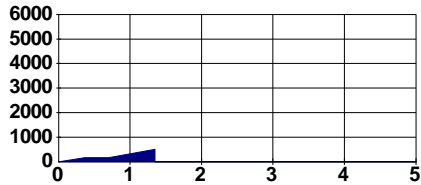
[†] *Progressive Isoinertial Lifting Evaluation, I. A Standardized Protocol and Normative Database*; Mayer, Barnes, Kishino, Nichols, Gatchel, Mayer and Mooney; Spine, Vol 13, No. 9, Sept. 1988.

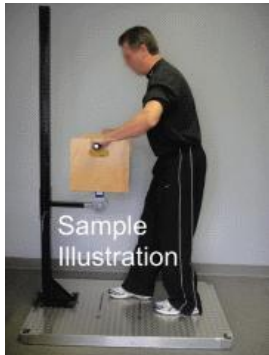
Progressive Isoinertial Lifting Evaluation, II. A Comparison with Isokinetic Lifting in a Disabled Chronic Low-Back Pain Industrial Population; Mayer, Barnes, Kishino, Nichols, Gatchel, Mayer and Mooney; Spine, Vol 13, No. 9, Sept. 1988.

Floor to Shoulder Frequent (2)				0 in. to 54 in. lift		4 lifts/cycle		
Heart Rate: Start = 94; 75% target = 136; 85% limit = 154						Weight Limit = 99 lb		
	Frequent PDC Level = Medium (11 - 25 lb)					Endpoint = Psychophysical		
Cycle #	Weight	Perceived	Reps	HR Lifting	HR % Max	Total Work	Post Cycle HR	
1	11	3	4	100	55	396	104	
2	21	6	4	121	66	1152	0	

Test Graphs (Heart Rate and Work) vs. Elapsed Time	Heart Rate (beats/min)		Cumulative Work (lb-ft)	
				

Knuckle to Shoulder Frequent (3)				30 in. to 54 in. lift		4 lifts/cycle	
Heart Rate: Start = 92; 75% target = 136; 85% limit = 154						Weight Limit = 99 lb	
	Frequent PDC Level = Medium (11 - 25 lb)					Endpoint = Psychophysical	
Cycle #	Weight	Perceived	Reps	HR Lifting	HR % Max	Total Work	Post Cycle HR
1	11	2	4	79	43	176	97
2	21	6	4	91	50	512	0

Test Graphs (Heart Rate and Work) vs. Elapsed Time	Heart Rate (beats/min)		Cumulative Work (lb-ft)	
				

COMMENTS (referenced by number from test result table)	Comment Picture
<p>(1) THE PATIENT COMPLETED 3 OF 4 REPS IN THE FINAL CYCLE.</p> <p>HE FEELS CONSTANT BURNING IN HIS MID LOWER BACK.</p>	



<i>COMMENTS (referenced by number from test result table)</i>	Comment Picture
(2) HAS SEVERE LOWER BACK PAIN.	
(3) COMPLETED 3 OF 4 REPS IN FINAL CYCLE. LOWER BACK IS FEELING VERY FATIGUED.	

Table LC1 Rating of Perceived Load	
VALUE	DEFINITION
1	Like Nothing
2	Very Light
3	Light
4	Light-Medium
5	Medium
6	Medium-Heavy
7	Heavy
8	Very Heavy
9	Too Heavy

Table LC2 - Test Endpoint Conditions	
CONDITION	DESCRIPTION
Psychophysical	Voluntary test termination by the patient based on complaints of fatigue, excessive discomfort, or inability to complete the required number of movements during the testing interval (cycle).
Physiological	Achievement of an age-determined target heart rate (based on a percent of patient's maximal heart rate - normally 85%, or in excess of 75% continuously for one minute).
Safety	Achievement of a predetermined anthropometric safe lifting limit based on the patient's adjusted body weight; or intervention by the ARCON operator based upon an evaluation of the patient's signs & symptoms.

Table LC3 - Physical Demand Characteristics Of Work (Dictionary of Occupational Titles - Volume II, Fourth Edition)			
Physical Demand Level	OCCASIONAL 0-33% of the workday	FREQUENT 34-66% of the workday	CONSTANT 67-100% of the workday
Sedentary	1 - 10 lbs.	Negligible	Negligible
Light	11 - 20 lbs.	1 - 10 lbs.	Negligible
Medium	21 - 50 lbs.	11 - 25 lbs.	1 - 10 lbs.
Heavy	51 - 100 lbs.	26 - 50 lbs.	11 - 20 lbs.
Very Heavy	Over 100 lbs.	Over 50 lbs.	Over 20 lbs.

ARCON HD - Grip Strength Report:

The patient was evaluated using the ARCON HD grip strength testing system. This system is designed to quantify an individual's grip strength in one or more standard grip positions and to compare such strength to recognized population norms (normative data is shown as "n/a" for grip positions with no published norms).

<i>Individual Test Results</i>		STRENGTH DATA		NORMATIVE DATA [‡]		
TASK NAME	DATE	Avg Force	CV [†] (%)	Population Norm	Standard Deviation	Comp. to Norm
Position 1 - Left (1)	3/24/2010	72.2 lb	4.2	n/a	n/a	n/a
Position 1 - Right	3/24/2010	71 lb	4.6	n/a	n/a	n/a
STANDARD - Left (2)	3/24/2010	83.8 lb	3.0	112.9 lb	+/- 21.7	low
STANDARD - Right	3/24/2010	94.8 lb	6.4	119.7 lb	+/- 24.0	low
Position 3 - Left (3)	3/24/2010	80.3 lb	7.4	n/a	n/a	n/a
Position 3 - Right	3/24/2010	90.7 lb	5.5	n/a	n/a	n/a
Position 4 - Left (4)	3/24/2010	77.2 lb	4.2	n/a	n/a	n/a
Position 4 - Right	3/24/2010	72.5 lb	4.7	n/a	n/a	n/a
Position 5 - Left (5)	3/24/2010	61.1 lb	5.7	n/a	n/a	n/a
Position 5 - Right	3/24/2010	64.7 lb	4.4	n/a	n/a	n/a
Rapid Exchange - Left (6)	3/24/2010	78.7 lb	8.1	n/a	n/a	n/a
Rapid Exchange - Right	3/24/2010	79.8 lb	3.4	n/a	n/a	n/a

("n/a" indicates results that are not available or applicable for the listed task)

The following table compares the patient's grip strength on opposite body sides, and reports a percent difference in strength for the *weaker hand* compared to the stronger hand. In cases of reported injury, an *expected strength* is calculated based on the measured strength of the uninjured side (note: **right** hand dominant subjects are assumed to be 10% stronger on the right side, while **left** hand dominant subjects are assumed have equal strength on both sides[‡]). When demonstrated strength is *less* than expected strength, the percent of *strength deficit* is reported.

<i>Left Hand vs. Right Hand</i>		STRENGTH DATA (* indicates Dominant Hand)			INJURED SIDE COMPARISON		
TASK NAME	DATE	LEFT	RIGHT	Weaker Hand	Injured Side	Expected Strength	Strength Deficit
Position 1	3/24/2010	72.2	* 71	-2 %	n/a	n/a	n/a
STANDARD	3/24/2010	83.8	* 94.8	-12 %	n/a	n/a	n/a
Position 3	3/24/2010	80.3	* 90.7	-11 %	n/a	n/a	n/a
Position 4	3/24/2010	77.2	* 72.5	-6 %	n/a	n/a	n/a
Position 5	3/24/2010	61.1	* 64.7	-6 %	n/a	n/a	n/a
Rapid Exchange	3/24/2010	78.7	* 79.8	-1 %	n/a	n/a	n/a

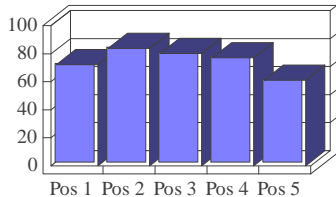
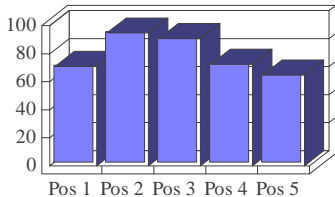
[‡] Virgil Mathiowetz, MS, OTR, Nancy Kashman, OTR, Gloria Volland, OTR, Karen Weber, OTR, Mary Dowe, OTS, Sandra Rogers, OTS, "Grip and Pinch Strength: Normative Data for Adults", Occupational Therapy Program, University of Wisconsin-Milwaukee, Milwaukee, WI, Arch Phys Med Rehabil 66:69-72, February, 1985.

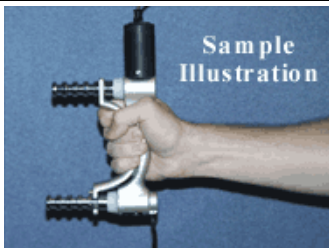
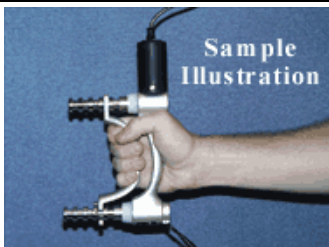
[†] Based on common guidelines for consistency of effort, test results that exhibit a coefficient of variation (CV) greater than or equal to 15% are likely to indicate an unreliable or inconsistent performance.

The patient was asked to perform a Rapid Exchange Grip Test (REG test) as a means to assess the reliability of effort in the standard grip test. Research[§] has shown that REG strength *exceeding* standard grip strength (positive REG score, denoted below as + REG) is a probable indication of submaximal or unreliable effort in the standard test.

<i>Rapid Exchange Results</i>	STANDARD TEST		RAPID EXCHANGE TEST			
TASK NAME	DATE	Avg Force	DATE	Avg Force	% Chg	+ REG
Rapid Exchange - Left	3/24/2010	83.8 lb	3/24/2010	78.7 lb	-5.6 %	no
Rapid Exchange - Right	3/24/2010	94.8 lb	3/24/2010	79.8 lb	-15.4 %	no

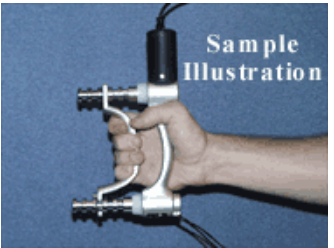
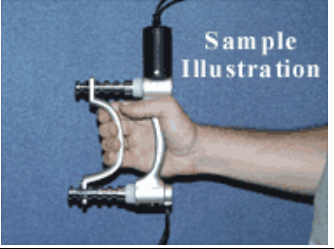
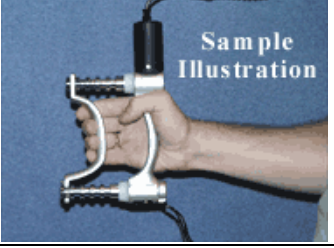
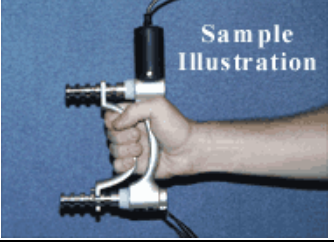
The Maximum Voluntary Effort (MVE) protocol was used to determine if the patient exerted a maximal effort during the grip test. This protocol consisted of successive grip tests over the full range of five positions of the hand dynamometer. Research[£] has shown that both normal and injured hand strength should be greater in positions 2, 3 and 4, and less in positions 1 and 5. The table below shows the patient's MVE results.

<i>MVE Results</i>	Hand Strength vs. Position	
In the graphs to the right, maximal effort is indicated by a "humped" or bell shaped curve (may be skewed toward position 2 or 4, based on patient's hand size), while sub-maximal effort is indicated by a flat or randomly varying curve.	<p>Left Hand (Pounds)</p> 	<p>Right Hand (Pounds)</p> 

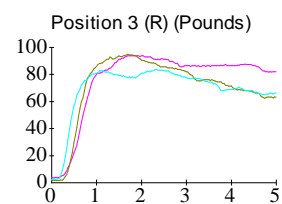
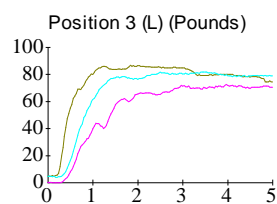
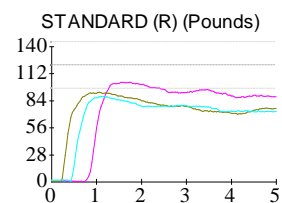
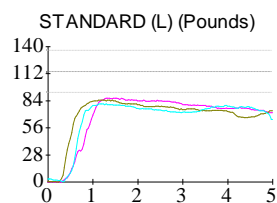
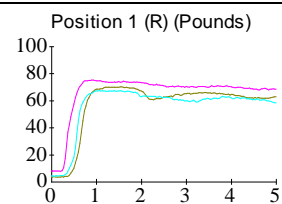
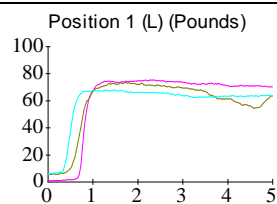
<i>COMMENTS (referenced by number from test result table)</i>	Comment Picture
(1) NONE.	
(2) THE PATIENT DID TAKE A BRIEF REST DUE TO LOWER BACK PAIN.	

[§] Hildreth, D. H. & Lister, G. D. (1989). Detection of submaximal effort by use of the rapid exchange grip. Journal of Hand Surgery, 14A: 742-745.

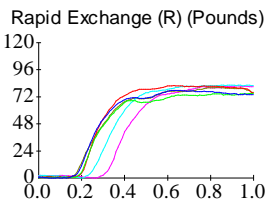
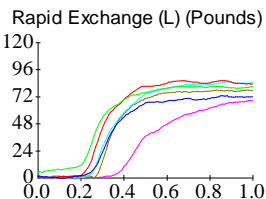
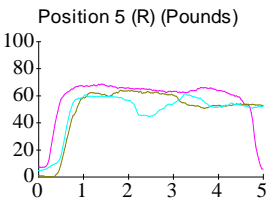
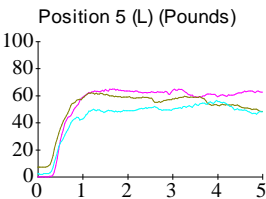
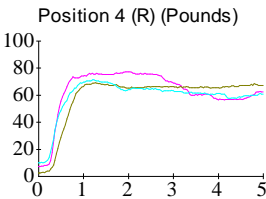
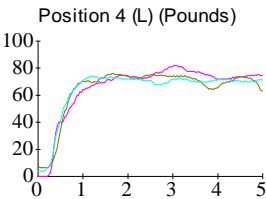
[£] Harold M. Stokes, M.D., "The Seriously Uninjured Hand - Weakness of Grip", Journal of Occupational Medicine, Vol. 25, No. 9, Sept. 1983.

<i>COMMENTS (referenced by number from test result table)</i>	Comment Picture
(3) ACHING IN RIGHT UPPER TRAPEZIUS MUSCLE.	
(4) CRAMPING IN THE RIGHT SIDE OF NECK. PAIN ACROSS LOWER BACK.	
(5) NONE.	
(6) MILD ACHING IN RIGHT UPPER TRAPEZIUS MUSCLE.	

HD Test Graphs (in order of Test Results)



HD Test Graphs (in order of Test Results)



ARCON PG - Pinch Strength Report:


The patient was evaluated using the ARCON PG pinch strength testing system. This system is designed to quantify an individual's pinch strength in the standard *Key*, *Tip* and *Palmar* positions, and to compare such strength to recognized population norms.

<i>Individual Test Results</i>		STRENGTH DATA		NORMATIVE DATA [‡]		
TASK NAME	DATE	Avg Force	CV [†] (%)	Population Norm	Standard Deviation	Comp. to Norm
KEY - Left (1)	3/24/2010	17.1 lb	2.8	25.6 lb	+/- 3.9	low
KEY - Right	3/24/2010	18.7 lb	0.6	26.1 lb	+/- 3.2	low
TIP - Left (2)	3/24/2010	14.3 lb	1.0	17.7 lb	+/- 3.8	normal
TIP - Right	3/24/2010	15.0 lb	12.4	18.0 lb	+/- 3.6	normal
PALMAR - Left (3)	3/24/2010	16.0 lb	2.8	25.9 lb	+/- 5.4	low
PALMAR - Right	3/24/2010	19.4 lb	5.0	26.2 lb	+/- 4.1	low

("n/a" indicates results that are not available or applicable for the listed task)



The following table compares the patient's pinch strength on opposite body sides, and reports a percent difference in strength for the *weaker hand* compared to the stronger hand. In cases of reported injury, an *expected strength* is calculated based on the measured strength of the uninjured side (note: **right** hand dominant subjects are assumed to be 10% stronger on the right side, while **left** hand dominant subjects are assumed have equal strength on both sides[‡]). When demonstrated strength is *less* than expected strength, the percent of *strength deficit* is reported.

<i>Left Hand vs. Right Hand</i>		STRENGTH DATA (* indicates Dominant Hand)			INJURED SIDE COMPARISON		
TASK NAME	DATE	LEFT	RIGHT	Weaker Hand	Injured Side	Expected Strength	Strength Deficit
KEY	3/24/2010	17.1	* 18.7	-8 %	n/a	n/a	n/a
TIP	3/24/2010	14.3	* 15	-5 %	n/a	n/a	n/a
PALMAR	3/24/2010	16	* 19.4	-18 %	n/a	n/a	n/a

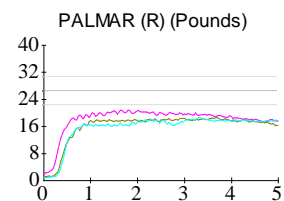
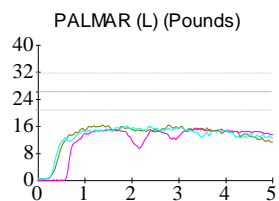
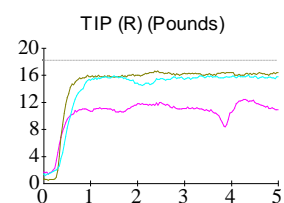
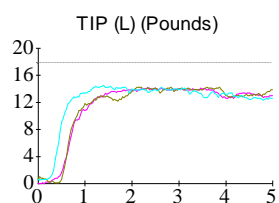
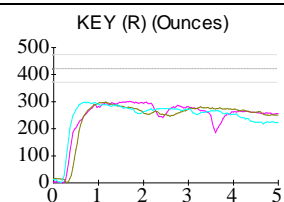
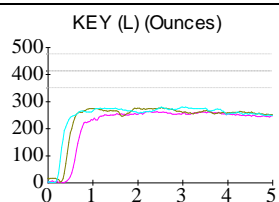
<i>COMMENTS (referenced by number from test result table)</i>	Comment Picture
(1) NONE.	

[‡] Virgil Mathiowetz, MS, OTR, Nancy Kashman, OTR, Gloria Volland, OTR, Karen Weber, OTR, Mary Dowe, OTS, Sandra Rogers, OTS, "Grip and Pinch Strength: Normative Data for Adults", Occupational Therapy Program, University of Wisconsin-Milwaukee, Milwaukee, WI, Arch Phys Med Rehabil 66:69-72, February, 1985.

[†] Based on common guidelines for consistency of effort, test results that exhibit a coefficient of variation (CV) greater than or equal to 15% are likely to indicate an unreliable or inconsistent performance.

<i>COMMENTS (referenced by number from test result table)</i>	Comment Picture
(2) NONE.	
(3) NONE.	

PG Test Graphs (in order of Test Results)



ARCON ROM - Spinal ROM Inclinometer Report:

The patient was evaluated using the ARCON ROM computerized dual inclinometer system. This system is designed to quantify an individual's spinal range of motion (ROM) in the cervical, thoracic and/or lumbar regions, and to compare these ROM values to recognized population norms.

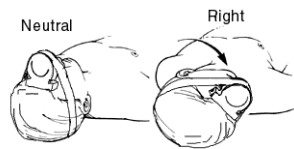
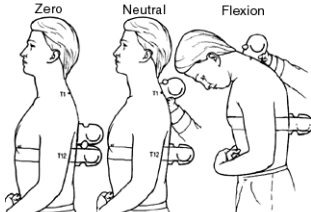
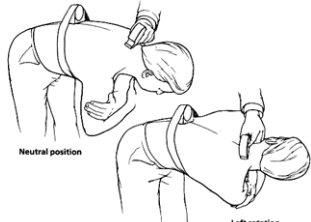
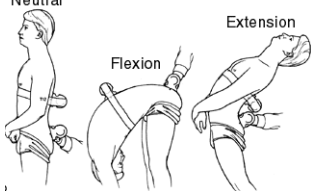
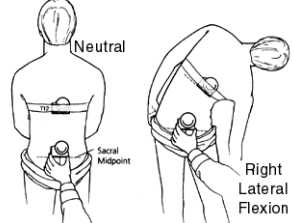
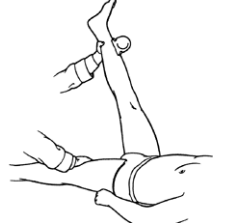
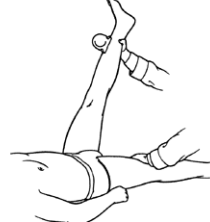
<i>Individual Test Results</i>		Range of Motion		NORMATIVE DATA [‡]	
Joint/Axis Tested	DATE	ROM Value	Valid [†]	Population Norm	Percent of Norm
Cervical Flexion (1)	3/24/2010	50 deg	Yes	50 deg	100 %
Cervical Extension	3/24/2010	47 deg	Yes	60 deg	78 %
Cervical Lateral Flexion - Left (2)	3/24/2010	35 deg	Yes	45 deg	78 %
Cervical Lateral Flexion - Right	3/24/2010	44 deg	Yes	45 deg	98 %
Cervical Rotation - Left (3)	3/24/2010	75 deg	Yes	80 deg	94 %
Cervical Rotation - Right	3/24/2010	87 deg	Yes	80 deg	109 %
Thoracic Flexion (4)	3/24/2010	50 deg	Yes	50 deg	100 %
Thoracic Rotation - Left (5)	3/24/2010	21 deg	Yes	30 deg	70 %
Thoracic Rotation - Right	3/24/2010	21 deg	Yes	30 deg	70 %
Lumbar Flexion (6)	3/24/2010	59 deg	Yes	60 deg	98 %
Lumbar Extension	3/24/2010	14 deg	Yes	25 deg	56 %
Lumbar Lateral Flexion - Left (7)	3/24/2010	25 deg	Yes	25 deg	100 %
Lumbar Lateral Flexion - Right	3/24/2010	33 deg	Yes	25 deg	132 %
Straight Leg Raise Right (8)	3/24/2010	62 deg	Yes	n/a	n/a
Straight Leg Raise Left (9)	3/24/2010	72 deg	Yes	n/a	n/a

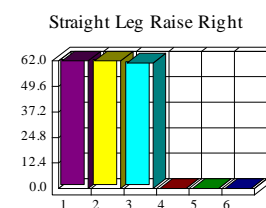
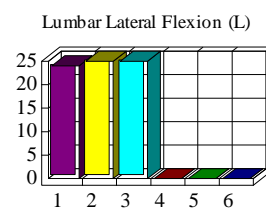
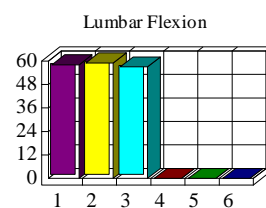
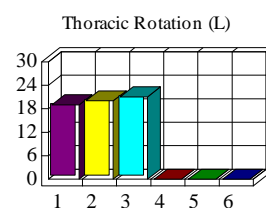
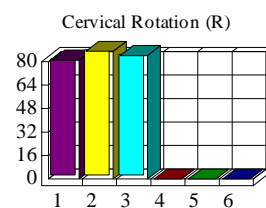
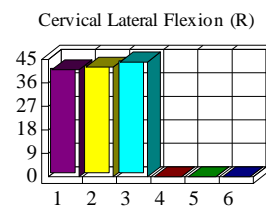
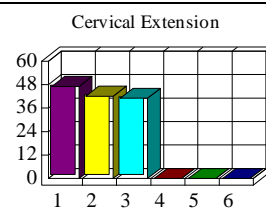
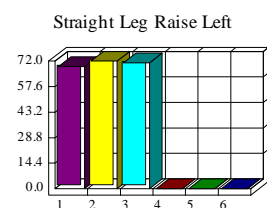
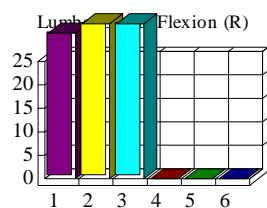
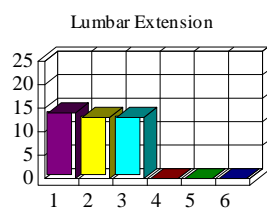
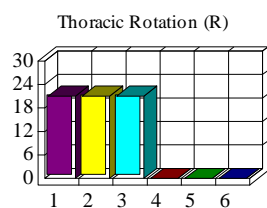
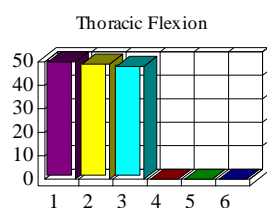
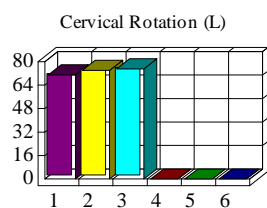
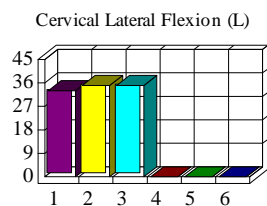
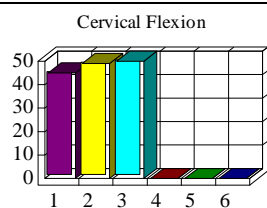
(“n/a” indicates results that are not available or applicable for the listed task)

<i>COMMENTS (referenced by number from test result table)</i>	Comment Picture
(1) NONE.	
(2) NONE.	

[‡] From “Guides to the Evaluation of Permanent Impairment”, Fourth and Fifth Editions, American Medical Association, 1995 & 2001.

[†] The AMA “Guides” validity criterion is three consecutive measurements within $\pm 5^\circ$ or $\pm 10\%$ of mean value.

COMMENTS (referenced by number from test result table)	Comment Picture
(3) PULLING IN UPPER CERVICALS ON LEFT AND RIGHT.	
(4) HAS A 'KNOT' BETWEEN SCAPULA AT T5-6 LEVEL. ACHING ACROSS LOWER BACK.	
(5) HAS BURNING ACROSS LOWER BACK.	
(6) STIFFNESS FROM LOWER BACK TO MID THORACICS. CONSTANT BURN ACROSS LOWER BACK.	
(7) WHEN IN RIGHT LATERAL FLEXION THE PAIN WAS FELT ON THE LEFT SIDE OF THE LOWER BACK.	
(8) WHEN AT MAXIMUM RIGHT SIDE STRAIGHT LEG RAISE HE FELT TINGLING DOWN HIS RIGHT LEG. IN MAX WHOLE RT LEG TINGLES.	
(9) FEELS PULLING IN RIGHT HIP FLEXOR MUSCLES. HAS MILD TINGLING IN LEFT LEG WHEN IN MAXIMUM STRAIGHT LEG RAISE POSITION. FEELS MILD TINGLING DOWN LEFT LEG.	

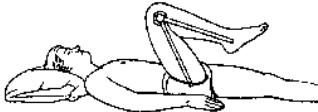
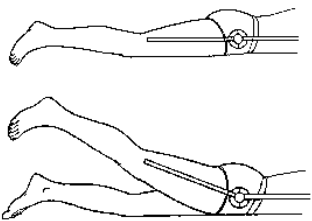
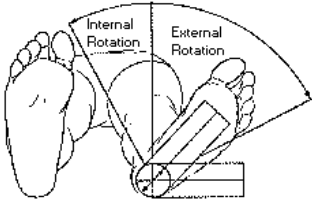
RM Test Graphs (in order of Test Results)

ARCON EG - Extremity ROM Goniometer Report:

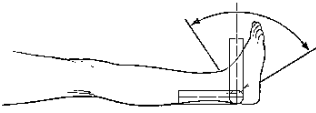
The patient was evaluated using the ARCON EG computerized electronic goniometer. This device is designed to quantify an individual's range of motion (ROM) on one or more of the extremities, and to compare these ROM values to recognized population norms.

<i>Individual Test Results</i>		Range of Motion		NORMATIVE DATA [‡]		
Joint/Axis Tested	DATE	LEFT	RIGHT	NORM	LEFT %Norm	RIGHT %Norm
Knee Flexion (1)	3/24/2010	125 deg	127 deg	120 deg	104 %	106 %
Knee Extension	3/24/2010	2 deg	2 deg	0 deg	n/a %	n/a %
Hip Extension (2)	3/24/2010	26 deg	24 deg	30 deg	87 %	80 %
Hip Internal Rotation (3)	3/24/2010	22 deg	12 deg	30 deg	73 %	40 %
Hip External Rotation	3/24/2010	66 deg	65 deg	40 deg	165 %	163 %
Ankle Dorsi Flexion (4)	3/24/2010	6 deg	9 deg	20 deg	30 %	45 %
Ankle Plantar Flexion	3/24/2010	38 deg	46 deg	30 deg	127 %	153 %

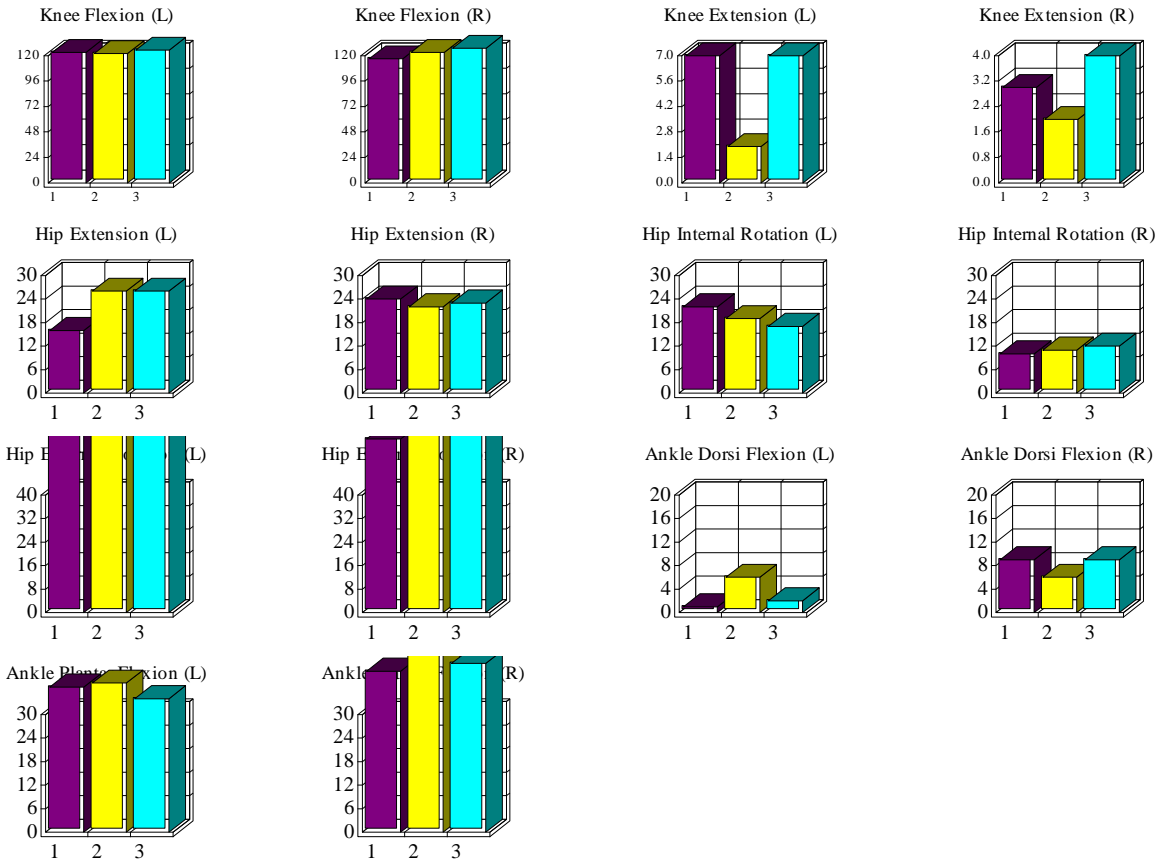
("n/a" indicates results that are not available or applicable for the listed task)

<i>COMMENTS (referenced by number from test result table)</i>	Comment Picture
(1) LEFT AND RIGHT HIP FLEXOR MUSCLES ARE ACHING.	
(2) FEELS PAIN ON THE OPPOSITE SIDE OF LOWER BACK WHEN OTHER LEG IS IN EXTENSION.	
(3) BURNING IN LEFT AND RIGHT SIDE GLUTEAL MUSCLES TO UPPER THORACIC PARASPINAL MUSCLES. ACHING LEFT AND RIGHT HIP FLEXORS	

[‡] From "Guides to the Evaluation of Permanent Impairment", Fourth and Fifth Editions, American Medical Association, 1995 and 2001.

COMMENTS (referenced by number from test result table)	Comment Picture
(4) THE PATIENT NOW HAS CONSTANT LOWER BACK PAIN. HAS A SEVERE CRAMPIN RIGHT GASTROC. MUSCLE.	

EG Test Graphs (in order of Test Results)



Canadian Aerobic Fitness Test Results:

The patient was evaluated using the *Canadian Aerobic Fitness Test (CAFT)*. This test is designed to measure an individual's cardiovascular fitness level through the use of a simple, submaximal stepping procedure. The test is performed by having the patient step for up to three consecutive three-minute sessions on double 20.3 cm steps. The stepping rate increases for each session, and is determined by the patient's age and gender. The patient's heart rate is monitored during the test for safety (test is terminated if heart rate exceeds 85-90% of age-adjusted maximal heart rate). At the end of each session the patient stops exercising for ten seconds while their heart rate is measured. If the patient's heart rate is below a predetermined ceiling following each of the first two sessions, an additional session is performed at an increased step rate. The heart rate measured at the end of the *last* session is used to determine the patient's fitness category (one of five standard levels as shown in table C1, below) as well as a prediction of the patient's aerobic capacity (**VO₂ Max** in ml/kg/min). Also included is the equivalent category of work (Physical Demand Characteristic or PDC) based on the energy cost of the stepping activity performed. Test results are as follows:

Results	Heart Rate Information				Aerobic Fitness Score		
DATE	Start of Test	End 1st Session	End 2nd Session	End 3rd Session	Predicted VO ₂ Max	Classification	PDC Equivalent
3/24/2010	101	111	110	116	42.2	Above Average (80%tile)	Heavy (5.9 kcal/min)

("n/a" indicates results that are not available or applicable for the listed task)

Table C1 CAFT Step Test Fitness scores [‡] for adult males and females	Classification	Predicted VO ₂ Max (ml/kg/min) – by age and gender							
		20 – 29		30 – 39		40 – 49		50 – 59	
		M	F	M	F	M	F	M	F
	Excellent	≥ 57	≥ 40	≥ 48	≥ 37	≥ 42	≥ 35	≥ 38	≥ 30
	Above Average	52-56	37-39	46-47	34-37	40-42	32-34	36-38	27-29
	Average	43-51	35-37	42-45	31-33	37-39	26-31	34-35	25-27
	Below average	40-42	32-34	38-41	29-31	34-37	24-25	31-33	22-25
	Poor	≤ 40	≤ 31	≤ 37	≤ 29	≤ 33	≤ 23	≤ 30	≤ 21

[‡] Based on data from the Canadian Fitness Survey, 1981.

ARCON *MTM* Functional Abilities Evaluation:

ARCON *MTM* evaluates occupational Physical Demand Characteristics (PDC) based on Methods-Time Measurement (MTM) data, the most widely developed and validated work analysis system in the world. MTM data is used to establish fair labor standards by numerous employers and unions and has been accepted in the courts and in arbitration as a valid standard of work performance. The MTM system has been used in personnel selection and disability evaluation for thirty years (Acker and Thompson, 1960; Anderson and Edstrom; Birdsong, 1972; Birdsong and Chyatte, 1970; Brickey, Drewes; 1961; Farrell, 1993; Foulke; Grant et al., 1975; Mink, 1975; McQuaid and Winkler; Poocke; Todd et al., 1979; Wilcock, 1980; Wilcock and Mink, 1982; Yokomizo, 1985).

An evaluatee's demonstrated ability in the assessment is compared to the MTM Industrial Standard (IS), the time it takes an average worker with average skill to perform a specific motion throughout an average eight hour day (Karger and Hancock, 1982; Karger and Bayha, 1987; Maynard et al., 1948; MTM Assoc, 1972, 1980).

The ARCON *MTM* Report presents data from the evaluation in tabular form, as shown and defined below:

Trial	Body Side	Wgt/Pos.	Dist/Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed

Trial	Count of repetitions of the identical task, repeated for consistency and endurance measurement. A series of Trials comprise a Set . MTM tests may consist of several sets of data.
Body Side	Indicating if the activity was performed with the right, left or both body members, if applicable. Dominant side, if applicable, is indicated by "Dom."
Wgt/Pos.	The weight of the object being handled in the activity, or the body position used for this activity (varies by activity).
Dist/Plane	Distance over which the activity was performed (for return trips, the distance is one way through the round trip), or the plane in which the activity was performed (varies by activity).
Reps	Repetitions that the activity was performed through the distance noted. Definition of Reps is presented in each table footnote.
Time (sec)	The evaluatee's time to perform a single trial of the activity.
% IS	The evaluatee's time compared to the Industrial Standard (IS) time, and reported as a percentage of the IS. An evaluatee can score at, above or below 100% IS, representing an ability that meets, exceeds or falls below the Industrial Standard for that activity.
CV (%)	Coefficient of variance (CV) is a statistical representation of consistency of evaluatee trial times. A minimum of three trials must be collected to calculate a CV. The empirically derived CV for MTM data is 8%. This evaluation uses a consistency threshold of 10% to allow for a 'learning curve' that is present in these activities. Many factors can affect test scores, including physical impairment, environmental conditions and motivation. CV's slightly greater than 10% should not automatically be interpreted as indication of lack of evaluatee reliability. Reliability must be determined by a suitably qualified evaluator. This data is computed at the end of a set, hence the CV is presented in the Avg table row for sets with three or more trials. When multiple sets are performed, the CV reported in the MTM Summary Table is calculated from all trials and thus does NOT represent the consistency within sets. The reader should refer to the MTM details for valid consistency data.
PE:HR	The Borg Perceived Exertion (PE) Scale is a self-report scale of degree of exertion the evaluatee perceived during the activity. Heart Rate (HR), if present, is the evaluatee's measured heart rate. Perceived exertion "integrates various information, including the many signals elicited from the peripheral muscles and joints, from the central cardiovascular and respiratory functions, and from the central nervous system" (Borg, 1982). This data is optionally collected at the end of a set, hence PE and HR are shown in the Avg row.
Time Set Completed	The time (recorded by the computer) when the last trial of the set of activity was completed.
<i>The following items appear within or below the table of results</i>	
Avg: S1	The averages per set (ie. S1 represents Set 1). Evaluatee time is averaged across all trials, the average time forms the basis for a comparison to the Industrial Standard to calculate the average percent IS.
Comments (listed below results table)	Evaluator notation of inappropriate body mechanics and/or presence of symptom complaints or behaviors is indicated by a ☒. Comments in reference to the completed set of activity follow if noted by the evaluator. Pictures associated with the activity are presented to the right of the comments box if the evaluator included a picture for the activity.

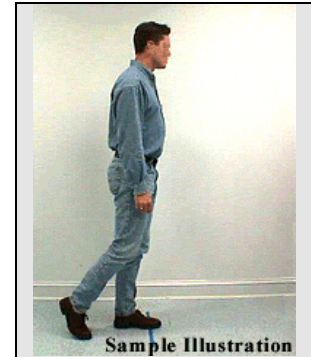
Walk Test:

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	None	None	12 Ft	3	24.6	104.0			
2	None	None	12 Ft	3	24.1	106.2			
3	None	None	12 Ft	3	23.4	109.4			
Avg: S1	None	None	12 Ft	3	24.0	> 106.5 <	2.0	1 : n/a	11:56

(Reps indicates Return Trips for this activity)

Comments for Walk, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors
NONE.



Sample Illustration

Carry Test:

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Both	11 Lb	12 Ft	1	7.0	142.3			
2	Both	11 Lb	12 Ft	1	7.2	138.3			
3	Both	11 Lb	12 Ft	1	7.4	134.6			
Avg: S1	Both	11 Lb	12 Ft	1	7.2	> 138.3 <	2.3	n/a : n/a	11:59
1	Both	21 Lb	12 Ft	1	7.3	137.7			
2	Both	21 Lb	12 Ft	1	7.7	130.6			
3	Both	21 Lb	12 Ft	1	7.4	135.9			
Avg: S2	Both	21 Lb	12 Ft	1	7.5	> 134.6 <	2.3	n/a : n/a	12:01
1	Both	51 Lb	12 Ft	1	8.5	147.2			
2	Both	51 Lb	12 Ft	1	8.7	143.8			
3	Both	51 Lb	12 Ft	1	8.8	142.2			
Avg: S3	Both	51 Lb	12 Ft	1	8.7	> 144.3 <	1.4	5 : n/a	12:03

(Reps indicates Return Trips for this activity)

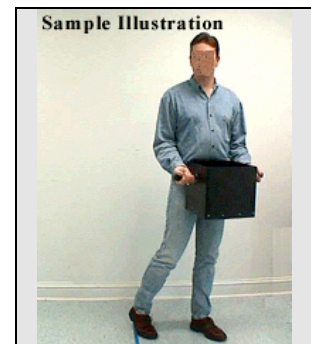
Comments for Carry, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors

S2: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors
hip pain

S3: ☐ Inappropriate Body Mechanics ☒ Symptom Complaints or Behaviors
LOWER BACK IS BURNING.

HE IS FEELING A 'PINCH' IN LOWER BACK.



Sample Illustration

Push/Pull Cart Test:

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Push	41 Lb	8 Ft	1	2.4	102.0			
2	Push	41 Lb	8 Ft	1	2.1	116.6			
3	Push	41 Lb	8 Ft	1	2.3	106.4			
Avg: S1	Push	41 Lb	8 Ft	1	2.3	> 108.0 <	5.5	n/a : n/a	12:12
1	Pull	41 Lb	8 Ft	1	3.0	81.6			
2	Pull	41 Lb	8 Ft	1	3.2	76.5			
3	Pull	41 Lb	8 Ft	1	3.1	79.0			
Avg: S2	Pull	41 Lb	8 Ft	1	3.1	> 79.0 <	2.6	3 : n/a	12:14

(Reps indicates One Way Trips for this activity)

Comments for Pull Cart, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors in turning

S2: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors tight lb



Sample Illustration

Stand/Sit Test:

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	None	Stand-Sit	None	1	2.7	104.1			
2	None	Stand-Sit	None	1	2.7	104.1			
3	None	Stand-Sit	None	1	2.8	100.4			
Avg: S1	None	Stand-Sit	None	1	2.7	> 102.9 <	1.7	3 : n/a	12:37

(Reps indicates Return Trips for this activity)

Comments for Stand/Sit, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors Twinge in back when standing.



Sample Illustration

Balance Test:

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	None	None	12 paces	1	5.6	131.1			
2	None	None	12 paces	1	5.2	141.2			
3	None	None	12 paces	1	5.4	136.0			
Avg: S1	None	None	12 paces	1	5.4	> 136.0 <	3.0	3 : n/a	12:11

(Reps indicates One Way Trips for this activity)

Comments for Balance, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☒ Symptom Complaints or Behaviors
 LOWER BACK IS BEGINNING TO TIGHTEN UP.

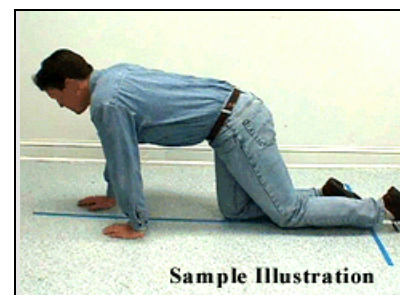
**Crawl Test:**

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Both	None	8 Ft	1	7.9	131.2			
2	Both	None	8 Ft	1	8.1	128.0			
3	Both	None	8 Ft	1	8.3	124.9			
Avg: S1	Both	None	8 Ft	1	8.1	> 128.0 <	2.0	3 : n/a	01:02

(Reps indicates One Way Trips for this activity)

Comments for Crawl, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors



Stoop Test:

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Dom.	<2 Lb	None	6	17.7	74.3			
2	Dom.	<2 Lb	None	6	17.4	75.6			
3	Dom.	<2 Lb	None	6	16.6	79.2			
Avg: S1	Dom.	<2 Lb	None	6	17.2	> 76.3 <	2.7	5 : n/a	12:18

(Reps indicates Return Trips for this activity)

Comments for Stoop, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☒ Symptom Complaints or Behaviors
 LOWER BACK IS FEELING 'FATIGUED'

HAS PAIN ALONG THE SPINE IN LOWER THORACICS.

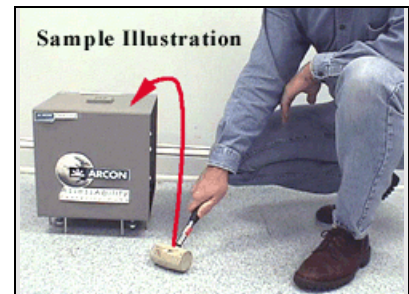
**Crouch Test:**

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Dom.	<2 Lb	None	6	8.5	86.4			
2	Dom.	<2 Lb	None	6	7.3	100.6			
3	Dom.	<2 Lb	None	6	6.9	106.4			
Avg: S1	Dom.	<2 Lb	None	6	7.6	> 97.1 <	9.0	3 : n/a	12:20

(Reps indicates Return Trips for this activity)

Comments for Crouch, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☒ Symptom Complaints or Behaviors
 HAS A BURNING FEELING IN LOWER BACK.



Kneel Test:

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Dom.	<2 Lb	None	6	8.8	108.4			
2	Dom.	<2 Lb	None	6	8.4	113.5			
3	Dom.	<2 Lb	None	6	7.7	123.8			
Avg: S1	Dom.	<2 Lb	None	6	8.3	> 114.9 <	5.5	2 : n/a	12:36

(Reps indicates Return Trips for this activity)

Comments for Kneel, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☒ Symptom Complaints or Behaviors
HAS BURNING IN LOWER BACK AND PAIN IN CENTER OF LUMBAR REGION.

**Climb Stairs:**

Trial	Body Side	Weight	Distance	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	None	None	10 stairs	1	5.4	124.7			
2	None	None	10 stairs	1	5.6	120.2			
3	None	None	10 stairs	1	5.6	120.2			
Avg: S1	None	None	10 stairs	1	5.5	> 121.7 <	1.7	5 : n/a	12:14

(Reps indicates One Way Trips for this activity)

Comments for Climb Stairs, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☒ Symptom Complaints or Behaviors
HAS A 'KNOT' IN LOWER BACK.



Reach to Front:

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Right	Sitting	Immediate	6	5.0	133.9			
2	Right	Sitting	Immediate	6	4.3	155.7			
3	Right	Sitting	Immediate	6	4.7	142.5			
Avg: S1	Right	Sitting	Immediate	6	4.7	> 143.5 <	6.1	n/a : n/a	12:26
1	Left	Sitting	Immediate	6	3.7	181.0			
2	Left	Sitting	Immediate	6	3.8	176.2			
3	Left	Sitting	Immediate	6	3.7	181.0			
Avg: S2	Left	Sitting	Immediate	6	3.7	> 179.4 <	1.3	n/a : n/a	12:27
1	Right	Sitting	Overhead	6	4.2	159.4			
2	Right	Sitting	Overhead	6	4.4	152.2			
3	Right	Sitting	Overhead	6	4.2	159.4			
Avg: S3	Right	Sitting	Overhead	6	4.3	> 156.9 <	2.2	n/a : n/a	12:28
1	Left	Sitting	Overhead	6	4.0	167.4			
2	Left	Sitting	Overhead	6	4.0	167.4			
3	Left	Sitting	Overhead	6	4.3	155.7			
Avg: S4	Left	Sitting	Overhead	6	4.1	> 163.3 <	3.4	.5 : n/a	12:29

(Reps indicates Return Trips for this activity)

Comments for Reach to Front, by Set (e.g. S1)	
S1:	<input type="checkbox"/> Inappropriate Body Mechanics <input type="checkbox"/> Symptom Complaints or Behaviors
S2:	<input type="checkbox"/> Inappropriate Body Mechanics <input type="checkbox"/> Symptom Complaints or Behaviors
S3:	<input type="checkbox"/> Inappropriate Body Mechanics <input type="checkbox"/> Symptom Complaints or Behaviors
S4:	<input type="checkbox"/> Inappropriate Body Mechanics <input type="checkbox"/> Symptom Complaints or Behaviors NONE.



Reach Side/Across:

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Right	Sitting	Immediate	9	7.7	130.4			
2	Right	Sitting	Immediate	9	7.2	139.5			
3	Right	Sitting	Immediate	9	6.8	147.7			
Avg: S1	Right	Sitting	Immediate	9	7.2	> 138.9 <	5.1	n/a : n/a	12:30
1	Left	Sitting	Immediate	9	8.0	125.5			
2	Left	Sitting	Immediate	9	6.9	145.6			
3	Left	Sitting	Immediate	9	7.6	132.2			
Avg: S2	Left	Sitting	Immediate	9	7.5	> 133.9 <	6.1	n/a : n/a	12:31
1	Right	Sitting	Overhead	9	7.2	139.5			
2	Right	Sitting	Overhead	9	6.8	147.7			
3	Right	Sitting	Overhead	9	6.5	154.5			
Avg: S3	Right	Sitting	Overhead	9	6.8	> 147.0 <	4.2	n/a : n/a	12:32
1	Left	Sitting	Overhead	9	7.8	128.8			
2	Left	Sitting	Overhead	9	8.1	124.0			
3	Left	Sitting	Overhead	9	7.0	143.5			
Avg: S4	Left	Sitting	Overhead	9	7.6	> 131.6 <	6.1	.5 : n/a	12:32

(Reps indicates Return Trips for this activity)

Comments for Reach Side/Across, by Set (e.g. S1)	
S1:	<input type="checkbox"/> Inappropriate Body Mechanics <input type="checkbox"/> Symptom Complaints or Behaviors
S2:	<input type="checkbox"/> Inappropriate Body Mechanics <input type="checkbox"/> Symptom Complaints or Behaviors
S3:	<input type="checkbox"/> Inappropriate Body Mechanics <input type="checkbox"/> Symptom Complaints or Behaviors
S4:	<input type="checkbox"/> Inappropriate Body Mechanics <input type="checkbox"/> Symptom Complaints or Behaviors
NONE.	



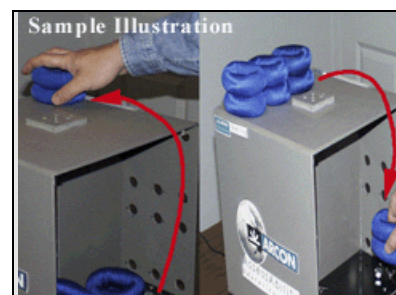
Reach with Weight:

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Dom.	Standing	Immediate	8	10.5	128.4			
2	Dom.	Standing	Immediate	8	11.1	121.5			
3	Dom.	Standing	Immediate	8	12.2	110.5			
Avg: S1	Dom.	Standing	Immediate	8	11.3	> 122.0 <	6.2	2 : n/a	12:18

(Reps indicates Weight Moves for this activity)

Comments for Reach with Weight, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors
NONE.

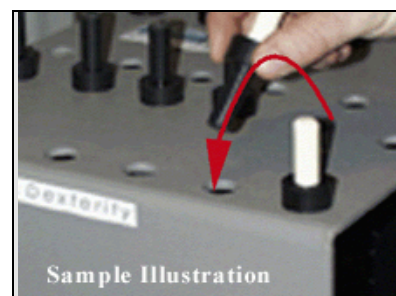
**Handling:**

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Dom.	Standing	Immediate	12	13.1	125.2			
2	Dom.	Standing	Immediate	12	11.9	137.8			
3	Dom.	Standing	Immediate	12	11.1	147.7			
Avg: S1	Dom.	Standing	Immediate	12	12.0	> 136.3 <	6.8	1 : n/a	12:38

(Reps indicates Peg Turns for this activity)

Comments for Handling, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors
NONE.



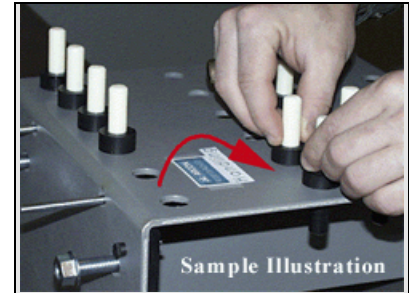
Bi-Manual Handling:

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Both	Standing	Immediate	6	7.3	145.9			
2	Both	Standing	Immediate	6	6.5	163.8			
3	Both	Standing	Immediate	6	7.0	152.1			
Avg: S1	Both	Standing	Immediate	6	6.9	> 153.6 <	4.8	1 : n/a	12:40

(Reps indicates Pegs/Hand for this activity)

Comments for Bi-Manual Handling, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors
NONE.

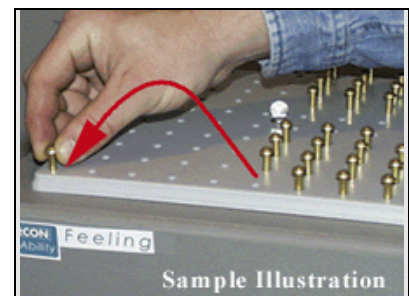
**Fingering:**

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Dom.	Standing	Immediate	10	15.9	100.0			
2	Dom.	Standing	Immediate	10	13.7	116.1			
3	Dom.	Standing	Immediate	10	13.7	116.1			
Avg: S1	Dom.	Standing	Immediate	10	14.4	> 110.2 <	7.2	1 : n/a	12:45

(Reps indicates Rivet Moves for this activity)

Comments for Fingering, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors
NONE.



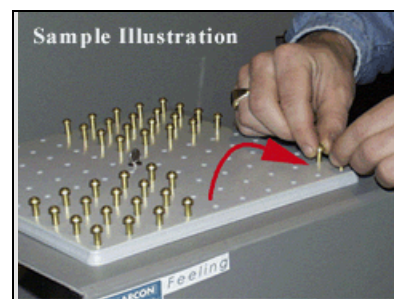
Bi-Manual Fingering:

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Both	Standing	Immediate	5	16.9	126.7			
2	Both	Standing	Immediate	5	15.1	141.8			
3	Both	Standing	Immediate	5	14.4	148.7			
Avg: S1	Both	Standing	Immediate	5	15.5	> 138.4 <	6.8	1 : n/a	12:47

(Reps indicates Rivets/Hand for this activity)

Comments for Bi-Manual Fingering, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors
NONE.

**Feeling:**

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Both	Standing	Immediate	6	9.7	111.2			
2	Both	Standing	Immediate	6	9.6	112.3			
3	Both	Standing	Immediate	6	8.5	126.9			
Avg: S1	Both	Standing	Immediate	6	9.3	> 116.4 <	5.9	n/a : n/a	12:49

(Reps indicates Shape IDs for this activity)

Comments for Feeling, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors
NONE.



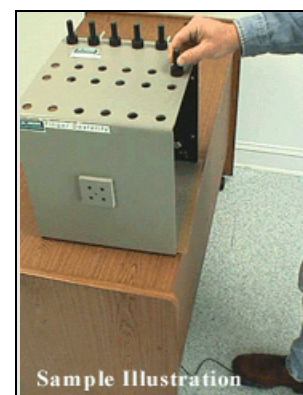
Eye-Hand-Foot:

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Dom.	Standing	Immediate	6	12.2	132.8			
2	Dom.	Standing	Immediate	6	14.2	114.1			
3	Dom.	Standing	Immediate	6	14.4	112.5			
Avg: S1	Dom.	Standing	Immediate	6	13.6	> 119.1 <	7.3	3 : n/a	12:42

(Reps indicates Peg Movements for this activity)

Comments for Eye-Hand-Foot, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors
NONE.

**Tool Use:**

Trial	Body Side	Position	Plane	Reps	Time (sec)	% IS	CV (%)	PE:HR	Time Set Completed
1	Dom.	Standing	Immediate	6	10.1	132.3			
2	Dom.	Standing	Immediate	6	10.3	129.8			
3	Dom.	Standing	Immediate	6	11	121.5			
Avg: S1	Dom.	Standing	Immediate	6	10.5	> 127.7 <	3.7	3 : n/a	12:52

(Reps indicates Tool Movements for this activity)

Comments for Tool Use, by Set (e.g. S1)

S1: ☐ Inappropriate Body Mechanics ☐ Symptom Complaints or Behaviors
NONE.

