



## **Northeast Evaluation Specialists, PLLC**

### **FUNCTIONAL CAPACITY EVALUATION SUMMARY REPORT**

Client: Ms. Dawn A Reese  
Account number: xxx  
Date of service: 2/24/2006  
Job at time of injury: Senior Business Systems Analyst  
Date of injury: 6/1/2004  
Referred by: Mrs. Melissa Donalds, RN, CCM  
Physician: Dr. Mayo A. Peabody, MD

#### **Reasons for Referral**

Ms. Reese was referred to this facility to answer the following questions about her current work/functional ability:

1. Is Ms. Reese capable of performing her pre-injury job?
2. At what amount of time can Ms. Reese return to her pre-injury job and at what level?

In order to answer the referral source's questions, Ms. Reese underwent a functional capacity evaluation on 2/24/2006. A synopsis of the findings of the evaluation follows. A full report is appended hereto or is available by contacting the clinic.

#### **Physical Effort Findings**

Overall test findings, in combination with clinical observations, suggest the presence of full physical effort on Ms. Reese's behalf.

#### **Reliability of Client Reports Findings**

Overall test findings, in combination with clinical observations, identify Ms. Reese's subjective reports of pain and associated disability to be both reasonable and reliable.

#### **Summary of Findings**

Ms. Reese demonstrated pain and limitation throughout testing, which involved repetitive movement and material handling. Her current abilities differ significantly from the physical requirements of the job of Senior Business Systems Analyst. See attached table.

Based on Ms. Reese physical effort test results along with her reliable subjective reports support this fact. It is on these results that the following answers to the referrer's questions can be made:

1. Is Ms. Reese capable of performing her pre-injury job?

Ms. Reese deficits in relation to upper extremity dexterity do not allow her to return to work in her original capacity as a senior business systems analyst. Throughout testing increased repetition equated consistently with increased complaints of symptoms in her right thumb, wrist, and hand.

2. At what amount of time can Ms. Reese return to her pre-injury job and at what level?

Ms. Reese tested to the occasional-frequent level of physical demand levels with her previous occupation as a Senior Business Systems Analyst categorized as requiring frequent actions involving dexterity (typing) for 75-80% of a typical work day. According to test results Ms. Reese would be unable to safely return to work as a Senior Business Systems Analyst as she has demonstrated the inability to participate in activities which require frequent repetition, such as typing, without pain. During all repetitive manipulation test symptom exacerbation was present with the first twenty minutes of activity.

## **Recommendations**

It is recommended that a meeting be held with the client, case manager, and funder to review the findings of this evaluation.

Secondary to Ms. Reese's limited abilities in regards to upper extremity dexterity Ms. Reese should be assessed for vocational opportunities which tie into her level of expertise, education, and interests yet test within her physical capabilities and within those activities which are allowable under her physician's care. However, until such time emphasis should not be placed on return to previous employment as a Senior Business Systems Analyst as test results do not warrant it.

The results of this evaluation were reviewed with Ms. Reese at the conclusion of the evaluation.

Thank you for your referral of Ms. Reese.

Signed,

J. Samson, MS, OTR/L, CWCE  
Northeast Evaluation Specialists  
340 Central Ave.

Northeast Evaluation Specialists, PLLC  
603-740-6371

Suite 303  
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## Physical Abilities and Job Match

The following table compares the client's demonstrated physical abilities to the critical physical demands of the job in question.

Ms. Reese's target job is senior business systems analyst. The typical work day is 480 minutes long with 30 minutes of lunch and other breaks resulting in a net time worked of 450 minutes.

The physical demands of the target job were determined by an interview with Ms. Reese, The Dictionary of Occupational Titles, the Physical Job Evaluation Form provided by the employer Liberty Mutual, as well as a job description as advertised on an external job site for Liberty Mutual.

	Job Demand	Demonstrated Ability	Match?
<b>Strength</b>			
Lifting	Sedentary. 10 lbs. Occasional (Up to 1/3 Day).	Lifting was tested to the Sedentary physical demand level (less than 10 pounds on a frequent basis, 1/3 to 2/3 of the day).	Yes
Carrying	Sedentary. 10 lbs. for 20 feet. Occasional (Up to 1/3 Day).	Carrying was tested to the Light physical demand level (up to 20 pounds on an occasional basis, up to 1/3 of the day).	Yes
Pushing	Sedentary. 10 lbs. for 20 feet. Occasional (Up to 1/3 Day).	Pushing was tested to the Medium physical demand level (20 to 50 pounds on an occasional basis, up to 1/3 of the day).	Yes
Pulling	Sedentary. 10 lbs. for 20 feet. Occasional (Up to 1/3 Day).	Pulling was tested to the Medium physical demand level (20 to 50 pounds on an occasional basis, up to 1/3 of the day).	Yes
<b>Mobility</b>			
Sitting	Frequent (80-90% of the Day).	Frequent (1/3 to 2/3 of the day).	Yes
Static Standing	Occasional (Up to 1/3 Day).	Occasional (up to 1/3 of the day).	Yes
Dynamic Standing	Occasional (Up to 1/3 Day).	Occasional (up to 1/3 of the day).	Yes
Walking	Occasional (2% of the Day).	Occasional (up to 1/3 of the day).	Yes
<b>Agility</b>			
Balancing		Balancing. x	NFT*
Above-Shoulder Work	Frequent (1/3 to 2/3 Day).	Occasional (up to 1/3 of the day).	No
<b>Dexterity</b>			
Grasping - Light	Frequent (75-80% of the Day).	Occasional (up to 1/3 of the day).	No
Grasping - Firm	Frequent (75-80% of the Day).	Occasional (up to 1/3 of the day).	No
Pinching	Frequent (75-80% of the Day).	Occasional (up to 1/3 of the day).	No
Reaching Forward	Frequent (75-80% of the Day).	Frequent (1/3 to 2/3 of the day).	Yes
Writing	Frequent (75-80% of the Day).		NFT*
<b>Vision/Hearing</b>			
Near Acuity (<20 in.)	Frequent (1/3 to 2/3 Day).		NFT*
Hearing	Frequent (1/3 to 2/3 Day).		NFT*

\* Not formally tested

FUNCTIONAL CAPACITY EVALUATION

OF

**Ms. Dawn A Reese**

REQUESTED BY

Mrs. Melissa Donalds, RN, CCM per Dr. Mayo A. Peabody, MD

Sports Medicine Ortho

150 Route 1 By-Pass

Tamworth, NH 03301

PREPARED BY

J. Samson, MS, OTR/L, CWCE

Northeast Evaluation Specialists

340 Central Ave.

Suite 303

Dover, NH 03820

ASSESSED

2/24/2006

## TABLE OF CONTENTS

Client Profile.....	3
Job Demands.....	5
Dexterity .....	9
Grip Strength.....	11
Handling.....	12
Lifting .....	13
Carrying .....	15
Pushing.....	16
Pulling.....	17
Material Handling.....	18
Musculoskeletal Evaluation – Upper Extremities.....	19
Timer Analysis.....	21
Physical Effort Findings .....	22
Reliability Of Client Reports .....	26
Next Day Follow-up .....	28
Job Posting Description.....	Appendix A
Physical Job Evaluation Form.....	Appendix B

## CLIENT PROFILE

Client: Ms. Dawn A Reese  
Account number: xxx  
Date of service: 2/24/2006  
Job at time of injury: Senior Business Systems Analyst  
Date last worked: 9/5/2005  
Physician: Mrs. Melissa Donalds, RN, CCM  
Referred by: Dr. Mayo A. Peabody, MD

### Reasons for Referral

Ms. Reese was referred to this facility to answer the following questions about her current work/functional ability:

1. Is Ms. Reese capable of performing her pre-injury job?
2. At what amount of time can Ms. Reese return to her pre-injury job and at what level?

Prior to beginning the evaluation, an intake interview was performed. During the interview Ms. Reese signed a "Consent to Evaluate and Treat" release. The following information was obtained during the interview:

Hand Dominance	Right
Date of Birth	8-17-66
Height	52 Inches
Weight	130 Pounds
Social Security Number	xxx

Additional Comments: None

Ms. Reese's resting heart rate was 72 beats per minute.

### Medical History

Ms. Reese indicates the following medical history:

Medical History Checklist
Joint Injury/Pain
Thyroid Problems

Ms. Reese also provides the following medical history and medication information:

Area	Description
Surgeries	S/P Right first dorsal compartment release and excision of retinacular cyst
Prescription Medications	Amour for thyroid
Non-Prescription Medications	Multi-vitamin
Medication Allergies	NKA
Additional Medical History	Untreated right ACL tear from skiing accident (per client report).

Ms. Reese provides the following work history:

Area	Comments/Specifics
Work Environment	Electronics Plant

Ms. Reese's home environment is as follows:

Resides With	Partner
Type of Residence	Multi-Level House
Activity Level	Very Active
Education Completed	Master of Science at Endicott College

Ms. Reese enjoys the following hobbies:

Hobbies
Wrist/Type/Computer
Aerobic Exercise
kayaking, skiing, traveling

The following records were available for review in conjunction with this report:

1. IME Dr. Emmanuel Sanchez, MD 1/05/2006
2. Physical Therapy Notes; Exeter Healthcare 2/4/05-2/3/06

### Reported Functional Tolerances

Ms. Reese reports her functional tolerances as follows:

	Client's Estimate of Maximum Tolerance
<b>Strength</b>	
Lifting	Varies with weight and duration. Increased symptoms with increased repetition
<b>Agility</b>	
Above-Shoulder Work	Varies with weight and duration. Increased symptoms with increased repetition
<b>Dexterity</b>	
Grasping – Firm	Varies with weight and duration. Increased symptoms with increased repetition



Pinching	Varies with weight and duration. Increased symptoms with increased repetition
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## JOB DEMANDS

The table below reflects the job demands considered in this functional capacity evaluation.

These values were determined by reference to an interview with Ms. Reese, the Dictionary of Occupational Titles, a faxed physical job evaluation form from the employer and a job description as advertised on an external job site.

According to the DOT the job of Senior Business Systems Analyst is not listed. The most similar position found is the job of Applications Programmer-Analyst (DOT Code 030.162-014) in the “Professional and Kindred Occupations” industry classification (Industry Code 7354). The role of Applications Programmer-Analyst is utilized in this report to provide additional information as to the physical requirements of the job of Senior Business Systems Analyst and should not be considered as a replacement.

The DOT describes the Applications Programmer-Analyst job as:

Plans, develops, tests, and documents computer programs, applying knowledge of programming techniques and computer systems: Evaluates user request for new or modified program, such as for financial or human resource management system, clinical research trial results, statistical study of traffic patterns, or analyzing and developing specifications for bridge design, to determine feasibility, cost and time required, compatibility with current system, and computer capabilities. Consults with user to identify current operating procedures and clarify program objectives. Reads manuals, periodicals, and technical reports to learn ways to develop programs that meet user requirements. Formulates plan outlining steps required to develop program, using structured analysis and design. Submits plans to user for approval. Prepares flowcharts and diagrams to illustrate sequence of steps program must follow and to describe logical operations involved. Designs computer terminal screen displays to accomplish goals of user request. Converts project specifications, using flowcharts and diagrams, into sequence of detailed instructions and logical steps for coding into language processable by computer, applying knowledge of computer programming techniques and computer languages. Enters program codes into computer system. Enters commands into computer to run and test program. Reads computer printouts or observes display screen to detect syntax or logic errors during program test, or uses diagnostic software to detect errors. Replaces, deletes, or modifies codes to correct errors. Analyzes, reviews, and alters program to increase operating efficiency or adapt to new requirements. Writes documentation to describe program development, logic, coding, and corrections. Writes manual for users to describe installation and operating procedures. Assists users to solve operating problems. Recreates steps taken by user to locate source of problem and rewrites program to correct errors. May use computer-aided software tools, such as flowchart design and code generation, in each stage of system development. May train

users to use program. May oversee installation of hardware and software. May provide technical assistance to program users. May install and test program at user site. May monitor performance of program after implementation. May specialize in developing programs for business or technical applications.

The Industry Description is:

This designation includes occupations requiring extensive study or experience in professions, technical services, sciences, art, and related types of work. The preparation for these occupations (with certain exceptions, such as occur in art and literature) is typically acquired through university, college, and technical institute training; experience providing institute training; experience providing equivalent backgrounds; or some combination of these. The functions of these occupations are predominantly mental rather than manual. This designation includes only occupations which cross industrial designation lines or which by the nature of the jobs cannot be identified as belonging to any one industry. Occupations which are found in only one DOT industry are classified in that industry rather than here.

The typical work day is 480 minutes long with 30 minutes of lunch and other breaks resulting in a net time worked of 450 minutes.

Additionally supplied by the employer, Liberty Mutual is a profile of the job of Senior Business Systems Analyst as listed on an external job posting:

*Re-engineers business operations to improve business results and operational effectiveness. Evaluates complex business requirements and models data and / or system requirements. Analyzes and documents complex business problems. Develops and implements business testing strategies. Coordinates upgrades and rollouts of larger more complex projects. Leads projects or sub-projects.*

*Education Requirements:*

*Bachelors or Master's degree in business or technical discipline or equivalent experience. Minimum of 5 years related experience. Extensive knowledge of business operations, objectives and strategies as well as business process and information flow. Understanding of business practices common across many businesses. Extensive understanding of re-engineering approaches. General knowledge of IT concepts, strategies and methodologies. General knowledge of diverse technologies and new and current architectures. Skills in object, data and / or process modeling; financial analysis and planning, business value analysis; business process design. Negotiation, facilitation and consensus building skills. Strong oral and written communication skills.*

Further noted on the Physical Job Evaluation Form as faxed to Northeast Evaluation Specialists, PLLC by Liberty Mutual:

Northeast Evaluation Specialists, PLLC  
603-740-6371

Job Duties

<i>Conducts/Directs/Compiles complex</i>	60%
<i>Analyze data and compile for presentation to stakeholders</i>	38%
<i>Meet with Stakeholders to facilitate training, data analysis findings</i>	2%

Physical Requirements

<i>Sitting</i>	80-90%
<i>Typing</i>	75-80%
<i>Walking</i>	2%

Educational Level Required to Perform Job

*Bachelors Degree of higher*

Special Skills Required to Perform Job

*Advanced analytical problem solving and research*

All other fields on the form were left blank. Copies of these forms are included in this report.

A combination of the demands listed between Applications Programmer-Analyst, from the DOT, and Senior Business Systems Analyst, from Liberty Mutual, are listed on the table below:

	Job Demand	Demonstrated Ability
<b>Strength</b>		
Lifting	Sedentary. 10 lbs. Occasional (Up to 1/3 Day).	Lifting was tested to the Sedentary physical demand level (less than 10 pounds on a frequent basis, 1/3 to 2/3 of the day).
Carrying	Sedentary. 10 lbs. for 20 feet. Occasional (Up to 1/3 Day).	Carrying was tested to the Light physical demand level (up to 20 pounds on an occasional basis, up to 1/3 of the day).
Pushing	Sedentary. 10 lbs. for 20 feet. Occasional (Up to 1/3 Day).	Pushing was tested to the Medium physical demand level (20 to 50 pounds on an occasional basis, up to 1/3 of the day).
Pulling	Sedentary. 10 lbs. for 20 feet. Occasional (Up to 1/3 Day).	Pulling was tested to the Medium physical demand level (20 to 50 pounds on an occasional basis, up to 1/3 of the day).
<b>Mobility</b>		
Sitting	Frequent (80-90% of the Day).	Frequent (1/3 to 2/3 of the day).
Static Standing	Occasional (Up to 1/3 Day).	Occasional (up to 1/3 of the day).
Dynamic Standing	Occasional (Up to 1/3 Day).	Occasional (up to 1/3 of the day).
Walking	Occasional (2% of the Day)	Occasional (up to 1/3 of the day).

<b>Agility</b>		
Balancing		Balancing. x
Above-Shoulder Work	Frequent (1/3 to 2/3 Day).	Occasional (up to 1/3 of the day).
<b>Dexterity</b>		
Grasping - Light	Frequent (75-80% of the Day).	Occasional (up to 1/3 of the day).
Grasping - Firm	Frequent (75-80% of the Day).	Occasional (up to 1/3 of the day).
Pinching	Frequent (75-80% of the Day).	Occasional (up to 1/3 of the day).
Reaching Forward	Frequent (75-80% of the Day).	Frequent (1/3 to 2/3 of the day).
Writing	Frequent (75-80% of the Day).	
<b>Vision/Hearing</b>		
Near Acuity (<20 in.)	Frequent (1/3 to 2/3 Day).	

## DEXTERITY

### Complete Minnesota Dexterity Test

The Complete Minnesota Dexterity Test was used to assess Ms. Reese’s ability to use her hands in a coordinated and efficient manner and to assess medium arm and hand dexterity. The following results were found:

	Score	Percentile
Placing	288	1
Turning	291	1
Displacing	211	15
One Hand Turning and Placing	644	1
Two Hand Turning and Placing	177	31-40
Non-Dominant Placing	288	
Non-Dominant One Hand Turning and Placing	644	

Ms. Reese was noted to stoop/bend at approximately 30 - 45° (moderate) during the test.

The client exhibited the following signs of physical discomfort during the Complete Minnesota Dexterity Test: holding/massaging (r) hand and facial wince.

Ms. Reese demonstrated the following sign of competitive test performance during the Complete Minnesota Dexterity Test: attempting to start prior to “start” command.

### Valpar 9 Whole Body Range of Motion Test

#### Sustained Above Eye Level Reaching

The Valpar 9 Whole Body Range of Motion Test was used to evaluate Ms. Reese’s tolerance to sustained above-eye-level reaching.

Time (sec)	MTM Ranking (%)	Worker Qualification Profile	Pegs Dropped		Comments
			Right	Left	
357	152%	Meets May Exceed Industrial Standard	0	0	

Topic	Observation
Exhibited Compensatory Postural Habits	Slowed work rate at approximately the 5 minute mark
Signs of Physical Discomfort	Grimacing

#### Bending

The Valpar 9 Whole Body Range of Motion Test was used to help evaluate Ms. Reese’s tolerance to both sustained and repetitive bending.

Time (sec)	MTM Ranking (%)	Worker Qualification Profile	Pegs Dropped		Comments
			Right	Left	
650	70%	Does Not Meet (A) Industrial Standard	0	0	

Topic	Observation
Level of Bending	Mild
Signs of Physical Discomfort	No significant signs

Sustained Low-Level Work

The Valpar 9 Whole Body Range of Motion Test was used to help evaluate Ms. Reese’s tolerance to prolonged low-level work. This test was stopped secondary to complaints of an untreated ACL injury in her right knee.

Time (sec)	MTM Ranking (%)	Worker Qualification Profile	Pegs Dropped		Comments
			Right	Left	
0		Industrial Standard	0	0	

Topic	Observation
Reasons For Test Cessation	Client request to stop

Recovery from Low-Level Work (Floor to Eye Level)

The Valpar 9 Whole Body Range of Motion Test was used to help evaluate Ms. Reese’s tolerance to low-level work recovery to eye-level work, requiring continuous reaching between floor and eye levels. This test was stopped secondary to complaints of an untreated ACL injury in her right knee.

Time (sec)	MTM Ranking (%)	Worker Qualification Profile	Pegs Dropped		Comments
			Right	Left	
0		Industrial Standard	0	0	

Topic	Observation
Reasons For Test Cessation	Client request to stop

## GRIP STRENGTH

As a function of Jamar Hand Dynamometer testing, information about the client's grip strength was collected. Using the five scores from her strongest grip span, she compares to a normative group using a six-grip test as:

Dominant (Right) Hand Grip Strength		Non-Dominant (Left) Hand Grip Strength	
Client	Norm Group	Client	Norm Group
68	70.4	65	62.3

Results are in pounds. As can be seen from this table, the client demonstrates the dominant hand as being weaker than the normative group. Her non-dominant hand demonstrates as being stronger than the normative group. Jamar serial number 314004220 was used for this portion of the test.

During the grip strength test, the client was noted to show the following signs of physical discomfort: holding/massaging (r) hand and facial wince.

Ms. Reese was observed to demonstrate the following sign of competitive test performance during grip strength testing: increased compensatory postures to improve force.

## HANDLING

### Bennett Hand Tool Dexterity Test

The Bennett Hand Tool Dexterity Test is designed to measure an individual's ability to use ordinary factory tools. The test involves prolonged standing, sustained neck flexion, and medium dexterity. Measured against a normative group comprised of maintenance mechanics at a mass transportation system in the northeastern United States, Ms. Reese achieved the following results:

	Time in Seconds	Percentile
Trial One	528	3
Trial Two	506	5

The client exhibited the following signs of physical discomfort during the Bennett Hand Tool Dexterity Test: holding/massaging (r) hand and facial grimace/facial wince.

Ms. Reese demonstrated the following signs of competitive test performance during the Bennett Hand Tool Dexterity Test: Starting before the command, and attempting to reposition test for increased speed.

The Bennett Hand Tool Dexterity Test was successfully completed.



## LIFTING

### Progressive Isoinertial Lifting Evaluation (P.I.L.E.)

Ms. Reese's frequent lifting ability was tested by means of the Progressive Isoinertial Lifting Evaluation (PILE) (Mayer et al, 1988). The results of this evaluation are a reflection of the amount of weight the client will be able to lift on a frequent basis that is between 34% and 66% of the work shift.

The evaluation involves the lifting of a progressively weighted box through four lifts in a period of 20 seconds. There are two components to the test, namely Lumbar (lifting from 6 inches to 36 inches and back to 6 inches) and Cervical (lifting from 36 inches to 60 inches and back to 36 inches). The results are presented in three forms:

1. Maximum acceptable weight that the client demonstrated she could lift.
2. Total Work expended during the lift test (ft. lbs.).
3. Total Power expended during the lift test (ft. lbs.sec<sup>-1</sup>).

Lift Test	Max. Weight (lbs.)	Max. Acceptable Weight (lbs.)	Total Work (ft lbs.)	Total Power (ft.lbs/sec <sup>-1</sup> )	Maximum Heart Rate
Lumbar (6"-36"-6")	23	23	480	13.3	128
Cervical (36"-60"-36")	13	13	208	52	128

#### Lumbar Component

The following observations were made regarding the client's body mechanics:  
The client demonstrated appropriate body mechanics throughout the lift tests.

The client's post-test heart rate was 128 beats per minute and the post-test pain rating was 3/10.

The client demonstrated no signs of physical discomfort during the test.

The client exhibited no signs of competitive test performance during the test.

The test was terminated as it was successfully completed.

#### Cervical Component

The following observations were made regarding the client's body mechanics:  
The client demonstrated appropriate body mechanics throughout the lift tests.

The client's post-test heart rate was 135 bpm and the post-test pain rating was 3/10.

The client demonstrated no signs of physical discomfort during the test.

The client exhibited no signs of competitive test performance during the test.

The test was terminated as it was successfully completed.

## CARRYING

Ms. Reese was observed to carry a loaded box over a level terrain. The results are presented below:

	Handle Height 52 Inches	Distance (Feet)	Weight 130 Pounds	Percentile	Rating
Trial 1	31	28	25	<10	Below Average
Trial 2	31	28	25	<10	Below Average

The client's post-test heart rate was 108 beats per minute.

The client demonstrated the following signs of physical discomfort: facial grimace and Stretching feeling in right thumb with pain.

The client exhibited no signs of competitive test performance during the test.

## PUSHING

Ms. Reese was observed to push a sled over a level terrain. The results are presented below:

	Handle Height 52 Inches	Distance (Feet)	Force (Pounds)	Percentile	Rating
Initial	25	25	40	<10	Below Average
Sustained	25	25	40	10	Below Average

The client's post-test heart rate was 128 beats per minute.

The client was noted to show the following signs of physical discomfort: shaking out right hand, facial grimace, and c/o pain in right thumb.

The client exhibited no signs of competitive test performance during the test.

The test was terminated as it was successfully completed.

## PULLING

Ms. Reese was observed to pull a sled over a level terrain. The results are presented below:

	Handle Height 52 Inches	Distance (Feet)	Force (Pounds)	Percentile	Rating
Initial	25	25	45	<10	Below Average
Sustained	25	25	40	<10	Below Average

The client's post-test heart rate was 110 beats per minute.

The client was noted to show the following signs of physical discomfort: shaking out right leg, facial grimace, and other.

The client exhibited no signs of competitive test performance during the test.

The test was terminated as it was successfully completed.

## MATERIAL HANDLING

### Maximum Isoinertial Lifting Evaluation

Ms. Reese completed the Maximum Isoinertial Lifting Evaluation during the evaluation process. Prior to testing, the client's heart rate was found to be 80 bpm and her blood pressure was 114/75 mm Hg. her functional pain rating was 2/10.

The results for the 13 inch width (center of body to hands) of this evaluation are as follows:

Test	Max. Weight	Final Weight	Heart Rate	Pain	%ile	Comments
Floor-Knuckle	35	<b>35</b>	126	3	< 10	
12"-Knuckle	35	<b>35</b>	128	3		
Knuckle-Shoulder	20	<b>15</b>	130	3	< 10	
Shoulder-Overhead	20	<b>15</b>	135	3	< 10	
Carry 30 feet	25	<b>25</b>	124	3	< 10	
Push 30 feet	40	<b>40</b>	124	4	18	
Pull 30 feet	40	<b>40</b>	124	2	16	

## MUSCULOSKELETAL EVALUATION – UPPER EXTREMITIES

A musculoskeletal evaluation was performed on Ms. Reese prior to any functional testing. The client's pre-test pain level was 0/10. The evaluation results are as follows:

### Posture

Ms. Reese's posture and the upper limbs were observed and found to appear as follows:

Neck: Normal Posture  
 Shoulder: Normal Posture  
 Elbow: Normal  
 Wrist: Normal

### Special Tests

Test	Comments
Shoulder Instability - Anterior	Negative on either side.
Shoulder Instability - Posterior	Negative on either side.
Cubital Tunnel Compression	Negative on either side. This indicates that there is no compression of the ulna nerve in the cubital tunnel.
Elbow - Medial Collateral Ligament	Negative on either side. This indicates that there is no tear in the medial collateral ligament of either elbow.
Elbow - Later Collateral Ligament	Negative on either side. This indicates that there is no tear in the lateral collateral ligament of either elbow.
Tinel - Elbow	Negative on either side. This indicates that there is no cubital tunnel compression on either elbow.
Phalen	Negative on either side. This indicates that there is no cubital tunnel compression on either wrist.
Tinel - Wrist	Negative on either side. This indicates that there is no Carpal Tunnel Syndrome on either side.
Finkelstein	Positive on the right side side. This indicates that there is possible De Quervain's Tenosynovitis on the right hand.

### Palpation

Thorough palpation of the upper extremities was performed on Ms. Reese with the following results:

Area	Result
Elbow	Negative for medial and lateral epicondyle pain
Wrist	Negative
Fingers	Negative

### Post-Evaluation Pain Level

Ms. Reese reported a post-test pain level of 4/10.



### TIMER ANALYSIS

During the functional capacity evaluation, Ms. Reese's total sitting, standing, walking, and other position and combinations of positions time was recorded. Her results from this continuous observation and recording is presented as follows:

	Total Time (Hrs. and Min.)	Longest Duration
Total Time for Evaluation	240 minutes	240 minutes
Preferred Position On Breaks	Sitting	

## PHYSICAL EFFORT FINDINGS

Physical Effort testing is used to evaluate whether or not attained physical data truly represents a client’s physical maximums. If a client does not partake in his/her testing day with full physical effort, an evaluator cannot be certain that observed performances truly represent maximal abilities.

### Maximum Voluntary Effort (MVE) Testing

#### Jamar Five-Position Grip

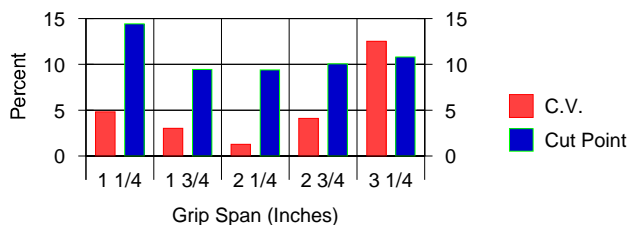
Ms. Reese underwent a formal screening procedure to query maximum voluntary effort during testing. This test uses the Jamar Hand Dynamometer (serial number 314004220) to measure isometric force generated by the hand. The Jamar is used to present ten maximum gripping measurements, each repeated three times. Studies indicate that out of 10 coefficients of variation calculated, no more than two will exceed experimentally derived “cut-points” if the individual is demonstrating maximum voluntary effort.

The results (in pounds) of Ms. Reese’s Jamar testing is presented below:

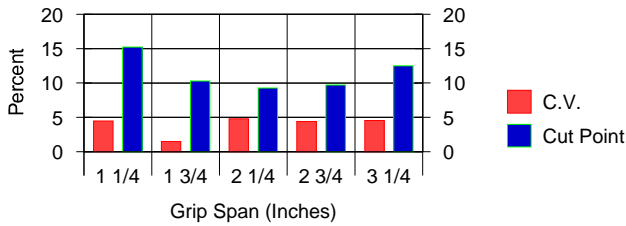
Grip Span	Test 1		Test 2		Test 3		Comments
	Dom	Non	Dom	Non	Dom	Non	
1 1/4”	65	59	58	65	60	65	
1 3/4”	68	65	65	63	70	63	
2 1/4”	64	63	63	56	65	60	
2 3/4”	64	55	58	55	60	50	
3 1/4”	55	48	45	45	41	43	

Grip Span	Coefficient of Variation		Exceed Cut Point?	
	Dom	Non	Dom	Non
1 1/4”	4.83	4.49	No	No
1 3/4”	3.04	1.48	No	No
2 1/4”	1.28	4.81	No	No
2 3/4”	4.11	4.42	No	No
3 1/4”	12.53	4.53	Yes	No

#### Un-Impaired Dominant Upper Extremity



Un-Impaired Non-Dominant Upper Extremity

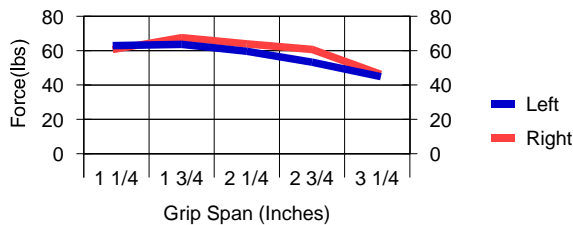


Analysis of the client’s scores demonstrates 1 coefficient of variation above the permissible cut-points. As a total of two scores are allowed above the cut-points, this is suggestive of maximum voluntary effort during testing.

Grip Curve Analysis

A second method of screening for the presence of maximal voluntary effort relates to the analysis of score distribution. If an evaluatee is providing maximum effort on the Jamar, a bell curve pattern of score distribution is expected.

Score Distribution



Such a bell curve pattern was observed in Ms. Reese’s case for her right hand and was present for her left hand, suggestive of maximum voluntary effort on the right and of maximum voluntary effort on the left. Jamar serial number 314004220 was used for this portion of the test.

A second method of using bell curve analysis to gauge a client's level of physical effort relates to analysis of standard deviation. Clinical studies indicate that if a person is partaking in testing with full physical effort, a specific pattern of score distribution is expected.

Right Upper Extremity: Ms. Reese’s right hand grip scores, produced a flat line variance (S.D. = 7). Clinical studies suggest this standard deviation to be indicative of low effort.

Left Upper Extremity: Ms. Reese’s left hand grip scores, produced a flat line variance (S.D. = 6.89). Clinical studies suggest this standard deviation to be indicative of low effort.

Jamar Rapid Exchange Grip Test (REG)

The Rapid Exchange Grip test (REG) was used to further validate original maximum voluntary effort (static) test results. Studies indicate that if an evaluatee is providing high effort, REG peaks usually fall short of maximum voluntary effort peaks, typically by about 15%. Based upon a 1995 study by Harold Stokes, a 12 pounds forgiveness window was provided. Research dictates that if a person is providing high effort, her REG scores will not exceed her MVE (static) scores by 12 pounds or more.

Ms. Reese’s results (in pounds) are presented below:

	MVE Peak	REG Peak	MVE vs REG Difference	
			Pounds	Percent
Dominant	70	67	-3	-4
Non-Dominant	65	63	-2	-3

Results of the REG testing identified high effort for Ms. Reese’s dominant hand and high effort for Ms. Reese’s non-dominant hand.

During the REG test, the client was noted to demonstrate the following signs of physical discomfort: facial wince and other.

Ms. Reese was observed to demonstrate the following signs of competitive test performance: muscular recruitment and increased compensatory postures to improve force.

**Competitive Test Performance<sup>©</sup>**

Matheson-trained functional capacity evaluators are trained to look for examples of competitive test performance (CTP) in persons who participate in tests which entail high levels of physical effort. Such examples may include (but are not exclusive to): starting tests prior to the uttered “START” command, continuing to work after the uttered “STOP” command, asking for extra practice time, asking to repeat a slow trial, postural accommodation to improve performance, etc.

In Ms. Reese’s case, such examples were abundant throughout her testing day.

**Physiological Analysis – Heart Rate Monitoring**

To further gauge Ms. Reese’s overall level of physical effort, clinical heart rate analysis was used throughout her testing day. Matheson-trained functional capacity evaluators are trained to look for heart rate measures nearing or exceeding aerobic target levels in individuals providing high levels of effort on repetitive, large muscle group activity. Overall heart rate analysis suggest good effort on Ms. Reese’s behalf.

### **Clinical Consistency**

Matheson-trained functional capacity evaluators are trained to look for high levels of clinical consistency in clients who partake in testing which entails full physical effort. Persons providing full physical effort should remain consistent in functional presentation despite multi-hour tests under distraction-based clinical testing situations.

During the 240 minutes of constant distraction-based clinical testing, Ms. Reese's performance remained clinically consistent, suggestive of good consistent effort on her behalf.

### **Summary of Physical Effort Findings**

Overall test findings, in combination with clinical observations, suggest the presence of full physical effort on Ms. Reese's behalf.

## RELIABILITY OF CLIENT REPORTS

Reliability of Client Report testing is comprised of a battery of tests designed to better assess the dependability and accuracy of the client’s subjective reports of pain and/or disability. The battery includes tests which evaluate the presence or absence of non-organic findings (findings that have more to do with illness behavior than underlying physical disease) as well as tests which compare a client’s subjective reports to what he/she is actually capable of doing through the use of distraction based testing and observations of ability/disability.

Areas of testing, which fall under the Reliability of Client Reports umbrella, include: symptom magnification, inappropriate illness behavior, somatic amplification, and non-organic signs.

### Pain Scales

Various pain scales were implemented with Ms. Reese to evaluate both the consistency and reliability of her subjective (verbal) reports. Visual Analog Pain Scale ratings correlated well with Functional Pain Scale ratings. Subjective ratings of pain matched well with distraction-based clinical observations. Repetitive movement reports matched well with clinical observations.

### Subjective Pain Levels

Ms. Reese states that she is experiencing pain in the areas indicated in the following table (these are based on the 0-10+ Functional Pain Rating Scale where 0 represents no pain and 10+ represents emergency pain warranting immediate emergency department care or hospitalization):

	Pre-Test Pain	Post-Test Pain	Next Day Pain
(R) Wrist	0/10	4/10	3/10
(R) Hand	0/10	4/10	3/10

Ms. Reese reported the following additional pain rating data:

	Functional Pain Rating
Present Rating	0/10
Best Rating Over Past 30 Days	0/10
Worst Rating Over Past 30 Days	3/10

The Visual Analog Pain Scale (Huskisson, 1973) was also used to evaluate the client’s pain before and after the evaluation. The client’s score at the beginning of the evaluation was 0.3 and the score at the end of the evaluation was 3. This indicates a difference of 2.7 points. These scores and their trend should be compared with the functional pain ratings recorded at the same time.

**Pain Assessment/Questionnaires**

Ms. Reese completed a number of standard assessment questionnaires to assess the presence and impact of Chronic Pain Syndrome. These questionnaires have been published in peer-reviewed journals and are widely used in the industrial rehabilitation field.

Questionnaire/Assessment	Score	Interpretation
The Visual Analog Scale (Today)	.3 cm	
The Pain Rating Scale	0 /10	

**Comments**

During the intake interview process, the client was noted to show no signs of physical discomfort.

**EPIC Hand Function Sort**

The EPIC Hand Function Sort is used to quantify an individual’s perception of their ability to perform work tasks. The responses on this instrument can be used to test reliability.

Results of reliability check testing indicated a reliable profile. The client perceives herself as meeting the physical requirements for medium-strength work, according to Department of Labor standards.

Rating of Perceived Capacity (RPC Total)	221
Perceived DOT Rating (Overall)	Medium
Sedentary Incremental Rating of Perceived Capacity (RPC-I)	Meets required RPC
Light Incremental Rating of Perceived Capacity (RPC-I)	Meets required RPC
Medium Incremental Rating of Perceived Capacity (RPC-I)	Meets required RPC
Heavy Incremental Rating of Perceived Capacity (RPC-I)	Does not meet required RPC
Norm. vs. Healthy Employed	50
Norm. vs. Injured Unemployed	80

Subsequent clinical testing indicated that Ms. Reese’s subjective reports matched well with distraction-based objective findings.

The client was noted to show no signs of physical discomfort during the administration of the Hand Function Sort.

**Summary of Reliability of Client Reports**

Overall test findings, in combination with clinical observations, identify Ms. Reese’s subjective reports of pain and associated disability to be both reasonable and reliable.

## NEXT DAY FOLLOW-UP

Ms. Reese states that she is experiencing pain in the areas indicated in the following table (these are based on the 0-10+ Functional Pain Rating scale where 0 represents no pain and 10+ represents emergency pain warranting immediate emergency department care or hospitalization):

	Pre-Test Pain	Post-Test Pain	Next Day Pain
(R) Wrist	0/10	4/10	3/10
(R) Hand	0/10	4/10	3/10



*--- End Of Functional Capacity Evaluation Report for Ms. Dawn A Reese*

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