

# Health Point Occupational Rehabilitation

## Functional Capacity Examination

### Section 1: Data and History

Client Name:	A S	Secondary Diagnosis:	C/s strain
Date of Birth:	0/00/0000	Physician:	Ortho
Social Security:	-	Employer:	UPS
Date of Injury:	12/20/06	Employment Status:	Employed
Diagnosis:	Chest wall contusion.	Work Status:	OOW
Job Title:	Driver	Date of Evaluation:	8/28/07
Claim #:		Insurance:	3 <sup>rd</sup> party admin
Ns. Cs	Nurse/adjuster	Therapist	Adam Iannazzo, MPT

Verbal Job Description By Client: Client begins work at 8:40 am and works until 7:30 pm. First activity of the day is clocking in by walking and pushing a button on a board. After that at 8:10 there is a meeting for the drivers and then to the trucks which is about 80 to 100 feet away. Once at the truck there is sorting and loading the packages behind the truck which is priority stuff. There can be about 20 to 50 of these packages weighing from 1 pound to as much as 150 pounds. If there is nobody to help, the 150# packages are rolled or pushed onto the truck. After the packages, the pre-check is done and then begin to drive. Per day there is an average of 150 packages to deliver and about the same or over 400 for busy days to pick up. The route is 30% commercial and 70% residential. There is another route waiting which is significantly lighter. After driving back to the terminal, the next day packages are unloaded and then the day is over. I walk up and down the steps to the truck from 120-140x/day. Squatting to the floor is over 100x/day, knuckle to shoulder is >200x/day and above shoulder height is approximately >200x/day also. Bent forward reaching to low shelves in the truck about 50x/day.

#### Past Medical History:

High Blood Pressure:		N	Kidney Disease:		N
Nervous Disorder:		N	Heart Disease:		N
Pregnancy (at this time):		N	Diabetes:		N
Balance Disorder:		N	Seizures:		N
Tuberculosis:		N	Headaches:		N
Other: Otherwise Healthy					

History of Current Injury: I was doing the mall route and was using a dolly and there were a lot of 60-65# massage chairs walled up and I was pulling on of them and I felt a pop in my chest and I thought I was having a heart attack. I worked with the helpers for the rest of the day and that night it felt sore but it wasn't extreme. When I was at home I tried to push up from the floor and had the sharp pain again and went to the ER. I worked for about 2-5 days and couldn't do it. I was sent to HealthWorks and they said I pulled my pectoral muscle and I went to light duty. The closing and opening of the door caused a swelling and then another doc said I have chondritis. I had two months of PT and it stopped. I went to a second opinion with Dr. P ortho and he gave me a month off and did more PT and it helped but Dr. P ortho wanted me to just go back to work. Then I went to Dr.

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D ortho and he did an MRI of the neck and he said I can't go to work ever again. Then I changed to Dr. S. Ortho and he said the neck is probably from postural issues. Dr. S. Ortho wanted to do the work hardening.

## Section 2: Musculoskeletal Evaluation

Resting Heart Rate: 89 Blood Pressure: 144/97

Cervical AROM	Degrees
Flexion (80)	53 tight
Extension (70)	44
RSB (45)	36
LSB (45)	42 t on r
R Rot (70-90)	58
L Rot (70-90)	74

Myotomes	Left	Right
C4 Shoulder elevation	5	5
C5 Shoulder abduction	5	5
C6 Elbow flex/wrist ext	5	5
C7 Elbow ext/ wrist flex	5	5
C8 Thumb extension	5	5
T1 Intrinsic (finger abd)	5	5

Shoulder AROM	R	L
Abduction	161	150
Flexion	150	150
ER	70	78
Apley's IR	21 cm	21 cm
Ext	59	65 ct
IR at 90 of Abd	52	52 ct
ER at 90 of Abd	90	82 ct
Hor. Abduction	50	41 ct

Shoulder Strength	R	L
Abduction	5	5
Flexion	5	5
ER	5	5 p
Apley's IR	5	5
Ext	5	5 p
IR at 90 of Abd	5	5 p
ER at 90 of Abd	5	5 p
Hor. Abduction	5	4+ p

Elbow Strength	R	L
Flexion	5	5
Extension	5	5

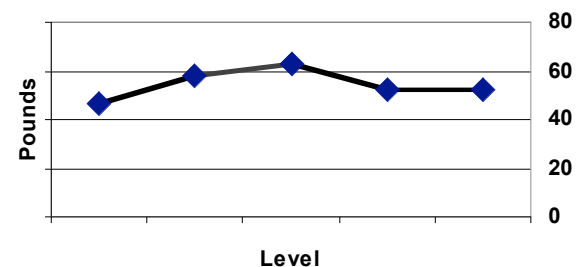
Elbow AROM	R	L
Flexion	148	147
Extension	0	0

Wrist Strength	R	L
Flexion	WNL	WNL
Extension	WNL	WNL
RD	WNL	WNL
UD	WNL	WNL
Pronation	WNL	WNL
Supination	WNL	WNL

Wrist AROM	R	L
Flexion	WNL	WNL
Extension	WNL	WNL
RD	WNL	WNL
UD	WNL	WNL
Pronation	WNL	WNL
Supination	WNL	WNL

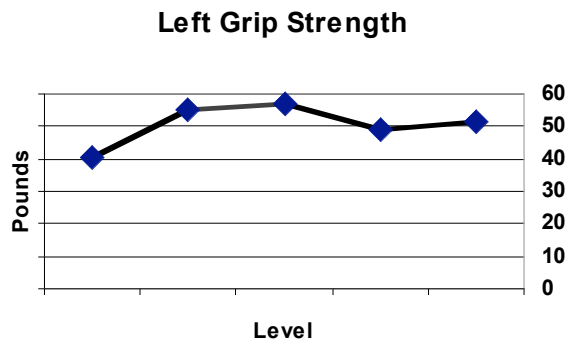
Grip (pounds)	Trial 1	Trial 2	Trial 3	Mean
Level one	44.8	48.6	46.7	46.7
Level two	62.9	61.0	51.0	58.3
Level three	65.5	59.5	63.3	62.8
Level four	57.4	47.6	51.0	52.0
Level five	59.5	47.6	50.0	52.4

Right Grip Strength



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Grip (pounds)	Trial 1	Trial 2	Trial 3	Mean
Level one	36.7	43.1	40.7	40.2
Level two	55.0	55.0	56.0	55.3
Level three	56.7	57.4	56.4	56.8
Level four	51.9	45.2	50.0	49.0
Level five	52.9	50.7	50.7	51.4



### GRIP STRENGTH TEST NORMS

Age	15-19		20-29		30-39		40-49		50-59		60-69	
Gender	M	F	M	F	M	F	M	F	M	F	M	F
<b>Above Average</b>	103-112	64-70	113-123	65-70	113-122	66-72	110-118	65-72	102-109	59-64	98-101	54-59
<b>Average</b>	95-102	59-63	106-112	61-64	105-112	<b>61-65</b>	102-109	59-64	96-101	55-58	86-92	51-53
<b>Below Average</b>	84-94	54-58	97-105	55-60	97-104	55-60	94-101	55-58	87-95	51-54	79-85	48-50
<b>Poor</b>	≤83	≤53	≤96	≤54	≤96	≤55	≤93	≤54	≤86	≤50	≤78	≤47

## Section 3: Lifting Capacity

10 Rep Max

Task: Two-handed	Trial 1	Trial 2	Trial 3	Comments
Floor to knuckle	20	30	40	150/93 after first trial. Safe to continue
Heart Rate	115	112	140	Feel a little bit at the chest.
Knuckle to shoulder	10	12	NT	15 is 1RM. Little pain after trial one
Heart Rate	119	126		Second Trial hurt the chest
Shoulder to Overhead	12	15	NT	Those bother the chest.
Heart Rate	126	133		
Pushing	56.1	42.4	43.6	No issues noted
Heart Rate			126	
Pulling	59.6	60.9	66.9	No issues noted
Heart Rate			128	
Overhead pulling	98.1	74.7	70.1	Pain
Heart Rate			118	

Task: Right hand	Trial 1	Trial 2	Trial 3	Comments
Floor to knuckle	20	25	NT	Evaluator ended increase
Heart Rate	120	139		
Knuckle to shoulder	7	10	<b>13 x 2</b>	No issues

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Heart Rate	114	120	124	
Shoulder to Overhead Heart Rate	8 115	NT	NT	Weight isn't bad but I feel it in the chest.
Pushing Heart Rate	39.8	43.1	43.6 123	No issues noted
Pulling Heart Rate	53.1	47.9	45.0 126	No issues noted

Task: Left hand	Trial 1	Trial 2	Trial 3	Comments
Floor to knuckle Heart Rate	15 127	NT	NT	I want to stop there since I have to do the other lifts.
Knuckle to shoulder Heart Rate	7 115	10 x 3 120	NT	That is too much
Shoulder to Overhead Heart Rate	7 118	10 x 4 116	NT	Unstable shoulder.
Pushing Heart Rate	37.1	37.0	35.9 112	Feel this at the lower and upper rib
Pulling Heart Rate	<u>36.4</u>	<u>34.2</u>	<u>34.7</u> <u>121</u>	Pain at lower rib and around the back.

## Section 4: Summary

Mrs. A S is a 33 year old right handed female that works as driver at UPS full time and is out of work due to a work injury where she pulled to hard and strained her chest wall. Mrs. S arrived on time for the examination and she was very pleasant throughout the testing.

An upper body musculoskeletal examination was performed in the usual way for active range of motion and strength as described by Kendall. Muscle strength was graded on a 0-5 scale. Zero is no contraction, 1 is palpable contraction, 2 is less than 50% of the active range in a gravity eliminated position, 3 is full active range of motion against gravity, 4 is moderate resistance and 5/5 is maximal resistance against the extremity by the examiner. The musculoskeletal examination was the first portion of this examination and there were multiple findings to discuss. Firstly, it is explained to the participant that pain will not be the focus of the examination and only when it is reported will it be documented. If there is no complaint offered, it is assumed by the evaluator that there is no increase in pain or issue with the test performed. Mrs. S is very healthy in appearance and has a joyful affect about her. There is no antalgia with any motion and she is well groomed. The cervical spine had normal but tight range of motion and all myotomes were strong. The shoulder girdle in the left had some loss with abduction and flexion and reports of tightness about the chest with rotations and horizontal abduction. The left shoulder elicited pain when muscle tested but was strong. Finally, the elbows, wrists, fingers, hips, knees and ankles/feet had normal range of motion and strength. Over all, this client has signs of a pectoralis strain with chondritis about the left upper ribs 2-8.

Grip strength is tested with the BTE Primus in the five level fashion for consistency of effort. The graph should represent a bell curve with the greatest strength in the second to third positions and then falling steady after that secondary to muscle length and the fact that muscles are strongest in the mid range of the arc of motion. The right hand has average strength and good consistency of effort while the left is slightly weak with a slightly increased fifth level showing some inconsistency of effort but I do not think this is significant.

A S's lifting capacity was tested using the BTE Primus and she was blind to the weight lifted or amount increased between trials at all times. The Primus calculates a coefficient of variance (CV) to judge how consistent the effort is that the patient is demonstrating where a CV of 15% or greater shows an inconsistent effort with the lift. In regards to isometric pushing and pulling, the stronger of the two should be pulling secondary to the increased lever arm and the ability to use body weight. The CV's of four out of nine isotonic lifts were above the 15% cut-off showing some inconsistency of effort which in this case may be due to fatigue with the ten repetition maximum. There was also some inconsistency of effort during left handed pulling where she pushed as much as she pulled as indicated in the tables above by the underlined numbers. Finally, the bolded numbers above show times where this client lifted as much or more with the single right hand than she did with two. This could be due to the fact that pain in the left was limiting the two handed lifting. Over all I believe this client showed full effort throughout the entirety of the examination.

Pain was rated on a 10cm visual analog scale pre-FCE, post musculoskeletal evaluation, post-FCE and was asked to fax, or call a 24 hour post report. The four pain scales showed consistent increase after the FCE and then remained about the same 24 hours later indicating that this client is not fabricating or magnifying her symptoms

### Section 5: Recommendations

Mrs. A S was injured over nine months ago, completed her light duty and has been out of work due to pain and weakness. Physical therapy has not resolved the pain or readied her for return to work and since significant deconditioning occurs within 2 weeks, never mind 9 months, I agree with Dr. Ortho's original request for an occupational rehabilitation program at 4 hours/day five days/week but for only 2-3 weeks, not four since Mrs. S has maintained some conditioning and just simply needs aggressive stretching/strengthening with work simulation to increase tolerance to activity after this now chronic injury.

(All numbers in pounds)	Sedentary	Light	<b>Medium</b>	Heavy	Very Heavy
Occasional = 1-33% of day	0-10	11-20	<b>21-50</b>	51-100	Over 100
Frequent = 33-66% of day	0-5	6-10	<b>11-25</b>	26-50	Over 50
Constant = 66-100% of day	0-2	3-5	<b>6-13</b>	14-25	Over 25

\_\_\_\_\_  
Adam Iannazzo, MPT

\_\_\_\_\_  
Date

I agree with the findings and Recommendations made by this FCE

\_\_\_\_\_  
Dr. Ortho

\_\_\_\_\_  
Date

I do not agree with the Recommendations made by this FCE and will propose my own.

\_\_\_\_\_  
Dr. Ortho

\_\_\_\_\_  
Date