Functional Abilities Determination

Claimant Name: Sample Smith
Claimant #: 54217
Date of Evaluation(s): 2025-10-31

CONFIDENTIAL INFORMATION ENCLOSED
WorkerFacts Clinic
123 Sample Drive
Phone: 212-111-2222 Fax: 757-273-6198

Contents of Report:

Functional Abilities Determination

WorkerFacts Clinic
123 Sample Drive
Phone: 757-220-5051 Fax: 757-273-6198

Report Date: 10/31/2025

Sample Smith

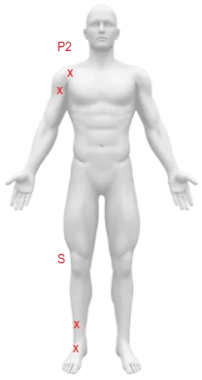
Client Information

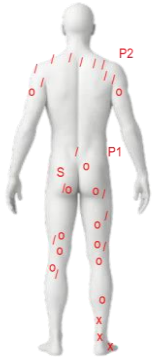
Name:	Sample Smith	**ID:**	54217
Address:	9 Winston Place	**DOB (Age):**	1952-07-29 (73)
Gender:	male	**Height:**	173 cm
Home Phone:	444-333-3333	**Weight:**	243 lbs
Work Phone:	n/a	**Dominant Hand:**	right
Occupation:	Laborer	**Referred By:**	ABC Case Mgmt
Employer(SIC):	City of Smithtown	**Resting Pulse:**	Norm
Insurance:	ABC Insurance	**BP Sitting:**	Norm
Physician:	ABC Case Mgmt	**Tested By:**	Sarah Sample, RPT

Mechanism and History of Injury

Date	Description
10/31/2025	Client was reportedly injured while working as a laborer in the area of asphalt repair. Client reportedly had his foot on a shovel and the bottom of his shoe melted to the shovel blade and stuck on it which caused him to lose his balance and fall backwards landing on his back, neck and head – he indicated that his head was bleeding at the time of impact but a head injury had been ruled out – client did get medical assistance – pain meds and muscle relaxants –extensive PT and work hardening – has completed very little Light duties and was recently terminated from his position – he is not at this time participating in PT or work. Client has had previous back and bilateral knee surgery.

Pain/Symptom Illustration





Area of Primary Concern	
P1	Primary
P2	Secondary
Pain Indicator	
~	Primary
/	Shooting
x	Burning
•	Pins and Needles
o	Numbness
General	
T	Temperature
SW	Swelling
S	Scar
C	Crepitus

Knee Scarring Image One

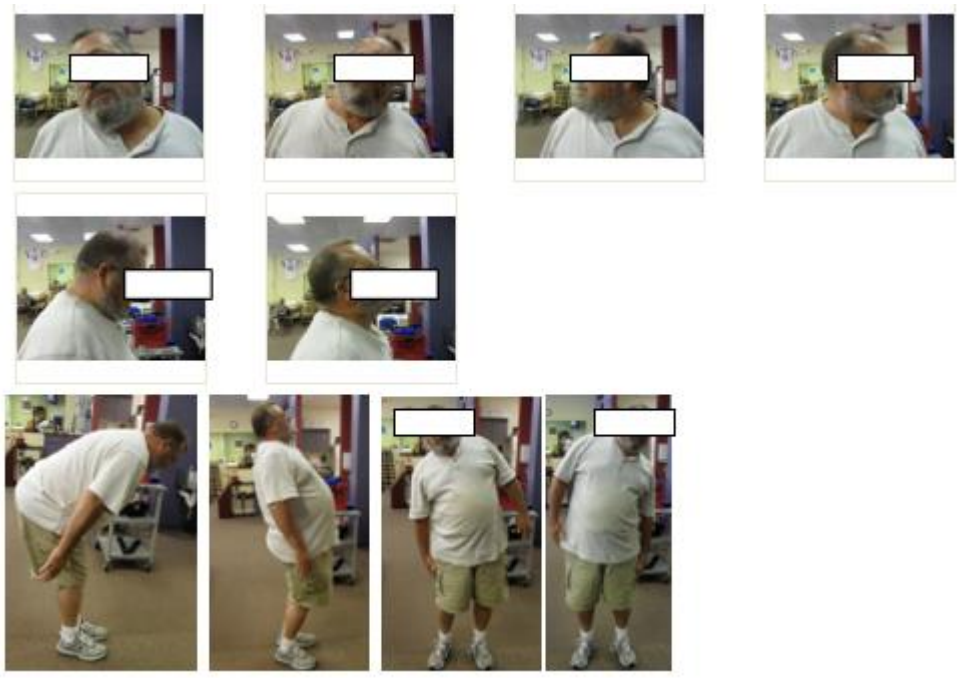
Knee Scarring Image Two

Lumbar Area Surgery Image

Referral Questions

What is the present lumbar range of motion noted for the client?

Area Evaluated	Data	Valid?	Norm	% of Norm
Lumbar Flexion	49°	Pass	60°	82%
Lumbar Extension	28°	Pass	25°	112%
Lateral Flexion - Left	27°	Pass	25°	108%
Lateral Flexion - Right	25°	Pass	25°	116%



What is the present range of motion noted for the client for the affected area of injury?

There were no noted limitations in either knee and the lumbar area as noted above, indicated minimal loss as was documented by both dual inclinometery as well as distraction testing.

What is the present strength noted for the client for the affected area of injury?

Norm left and right on knees and lifting as noted: Carrying of 40lbs, Low lift at 50lbs, medium height at 35lbs, twist / turn with weight at 25lbs and single hand left/right pick / place activity at 5lbs.

What are the present limitations to returning to full duties in their previous position?

During the testing the client displayed the ability to perform the following activities; average hand and pinch grip, sufficient dexterity- handling and fine finger movement, average total spine range of motion and extremity range of motion, average balance, ability to kneel, squat, crouch, able to perform extended reach with weight with both arms (10lbs), stair climb and walk with loads, and sit/stand for periods in excess of one hour without break. (Documented during testing and with communication with taxi driver – 1 hour and 15 minute ride with no breaks or client complaints) Client also demonstrated the ability to lift items at the 50lb range from the floor to waist level and from the waist to shoulder level at 35lbs as well as was able to carry 40lbs over distance. Client also displayed the ability to push and pull at norm levels at the 100lb mark. Client was able to twist and turn with a 25lb weight load and participated in sustained posture tests with extended reaching of minimal weights and passed. Based on the job description reviewed, the client has sufficient abilities to perform his job demands for; Refuse Collection, Street Sanitation and City Shop. The only area where there may be a limitation regarding excessive weight loading is in the section of his job known as Street Maintenance (concrete/asphalt/Tree Crew) where he could perform basic repairs without heavy wheelbarrow loading or climbing trees based on weight limitations noted above.

What accommodations could be made to the workplace to provide increased abilities/comfort to the client based on the present condition?

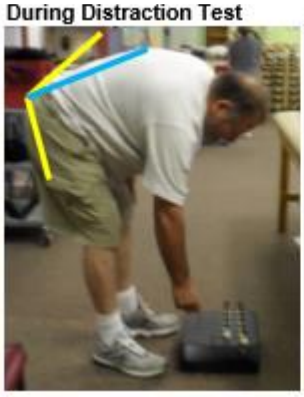
The client would not be able to carry the weight loads above 40lbs over distance or 50lbs from the floor level or over 35 lbs. from waist to shoulder or overhead, climb trees or sustain prolonged periods of extended reach with the weight of the chainsaw based on the results of testing. That being said most activities are within guidelines of tested abilities and generally frequent posture changes – every hour or so, with brief seated rests post prolonged digging would be sufficient to increase client comfort.

Was the client consistent and reliable in their efforts?

The client was unreliable and inconsistent in many areas of the testing process. To determine full abilities level there was significant reliance on distraction testing and symptom magnification crosschecks. The client was without question, providing a "sub maximal effort" during testing activities. Client was inconsistent with all lumbar movements and displayed the ability to flex at a greater level without discomfort as is noted when he was distracted or for that matter when he drank from the water fountain in the clinic. Furthermore, the client failed test/retest consistency and then his values for rapid exchange which should be 15% less to equal standard position 2 were actually more than 200% greater in value. He failed dominance testing and his coefficient of variation scores should be below 12% to be deemed maximal effort – instead they were 15 t0 34%.

During Testing ROM

During Distraction Test

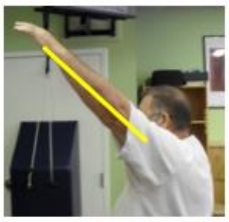


During Lifting

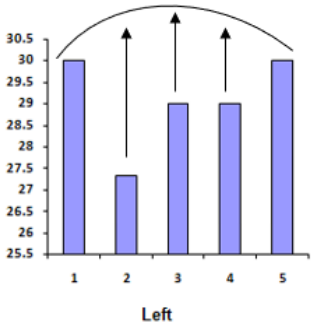
During Carrying

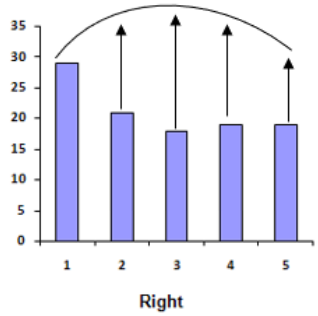
Kneeling

During standard Shoulder Flexion and then Distraction Testing:



MVE Graphs:





Distraction test consistency - When performing distraction tests for sustained posture the client should demonstrate similar limitations and or abilities. Pass/Fail determination:

FAIL Distraction testing both for lumbar area and for shoulder forward extension display inconsistent values in comparison to those tested during the evaluation.

Consistency with diagnosis - Based on the diagnosis and complaints of the individual it is expected that those issues would relate to a similar function performance pattern during testing. Pass/Fail determination:

FAIL The client displayed inconsistent lifting and carrying in relation to those expected with this type of complaint. There was no left/right side favoring and after multiple trials the client proved inconsistent and not reliable in results presented.

What would be the Physical Demand Classification (PDC) for this client?

*Medium which is in line with full return to duties.

(M) Medium Work

Exerting 20 to 50 lbs of force occasionally, and/or 10 to 25 lbs of force frequently, and/or greater than negligible up to 10 lbs of force constantly to move objects. Physical demand requirements are in excess of those for light work.

Physical Demand Characteristics of Work			
(Dictionary of Occupational Titles - Volume II, Fourth Edition, Revised 1991)			
Physical Demand Level	**Occasional (0–33%)**	**Frequent (34–66%)**	**Constant (67–100%)**
Sedentary	Up to 10 lbs of force	Negligible weight	Negligible weight
Light	Up to 20 lbs of force	Up to 10 lbs of force	Negligible weight
Medium	20–50 lbs of force	10–25 lbs of force	Up to 10 lbs of force
Heavy	50–100 lbs of force	25–50 lbs of force	10–20 lbs of force
Very Heavy	Over 100 lbs of force	Over 50 lbs of force	Over 20 lbs of force

Additional Comments: Client did present the ability to work at the Medium and to the low level of the Heavy category which is consistent with his work requirements.

Conclusions

The client was overall a below average rating of consistency and reliability for most of the testing. It is the opinion of the evaluator that based on the factual functional evidence presented, that the client is able to perform at a higher level. The client may very well be able to perform at higher weight loads, but refused to participate any further. Client did indicate that when asked if he could perform any of the duties of his previous job he stated NO – when asked if there was any job in the City he could do he said NO. Further to the above it should also be noted that the client did not move around in his seat during sitting tolerances or complain of discomfort while seated or after prolonged standing – client did not favor any side during carrying or lifting tests (no arm drop during carrying). No change in gait was noticed post activities during walking which again if present would be usually an indicator of pain involvement post irritation of injured area. Client was very verbal and upset that his wife would not be allowed to sit with him during the testing versus the translator. This was overcome and the wife of the client remained in the waiting room for the entire time of the evaluation.

Signature of Evaluator

_____

Date: 10/31/2025

Sarah Sample, RPT

License: FCE123456789

Functional Abilities Determination and Job Match Results

Activity Tested	Sit Time	Stand Time	Test Results	Job Description	Job Requirements	Job Match (Yes/No)
Client Interview Test	45 min		N/A	Initial assessment and history gathering	Basic interview requirements	Yes
Activity Overview		5 min	//	General activity overview and preparation	Basic standing and mobility	Yes
Strength						
Hand Strength Standard	5 min		L=32.4 R=34.5	Requires frequent lifting of 25-50 lbs materials throughout 8-hour shift. Essential for warehouse operations and material handling tasks.	Within Normal Limits	Yes
Hand Strength Rapid Exchange	5 min		L=31.6 R=35.6	Requires frequent lifting of 25-50 lbs materials throughout 8-hour shift. Essential for warehouse operations and material handling tasks.	Within Normal Limits	Yes
Hand Strength Mmve	5 min		L=31.3 R=33.9	Position requires sustained gripping strength for operating hand tools and equipment. Critical for manufacturing assembly line work.	Within Normal Limits	Yes
Pinch Strength Key	5 min		L=32.1 R=34.8	Position requires sustained gripping strength for operating hand tools and equipment. Critical for manufacturing assembly line work.	Target: 25 lbs	Yes
Pinch Strength Tip	5 min		L=32.3 R=34.8	Position requires sustained gripping strength for operating hand tools and equipment. Critical for manufacturing assembly line work.	Target: 25 lbs	Yes
Pinch Strength Palmar	5 min		L=31.0 R=34.6	Construction work requiring consistent bilateral strength for tool operation and material manipulation. Safety-critical job function.	Target: 25 lbs	Yes
Static Lift Low		5 min	31.3 lbs	Essential for patient care activities including lifting, transferring, and mobility assistance. Required for healthcare worker position.	Target: 25 lbs	Yes
Dynamic Frequent Lift Low		5 min	31.8 lbs	Construction work requiring consistent bilateral strength for tool operation and material manipulation. Safety-critical job function.	Target: 25 lbs	Yes
Dynamic Frequent Lift Mid		5 min	31.0 lbs	Construction work requiring consistent bilateral strength for tool operation and material manipulation. Safety-critical job function.	Target: 25 lbs	Yes
ROM Total Spine/Extremity						
Cervical Spine Flexion Extension		5 min	F=32.50 E=35.88	Construction work requiring consistent bilateral strength for tool operation and material manipulation. Safety-critical job function.	Within Normal Limits	Yes
Cervical Spine Lateral Flexion		5 min	L=31.88 R=34.88	Job demands repetitive flexion and extension movements for data entry and computer work. Necessary for 6+ hours daily office tasks.	Within Normal Limits	No
Cervical Spine Rotation		5 min	F=31.75 E=33.25	Position requires sustained gripping strength for operating hand tools and equipment.	Within Normal Limits	Yes

Activity Tested	Sit Time	Stand Time	Test Results	Job Description	Job Requirements	Job Match (Yes/No)
				Critical for manufacturing assembly line work.		
Lumbar Spine Flexion Extension		5 min	F=31.00 E=35.25	Job demands repetitive flexion and extension movements for data entry and computer work. Necessary for 6+ hours daily office tasks.	Within Normal Limits	No
Lumbar Spine Lateral Flexion		5 min	L=32.50 R=32.75	Requires frequent lifting of 25-50 lbs materials throughout 8-hour shift. Essential for warehouse operations and material handling tasks.	Within Normal Limits	Yes
Occupational Tasks						
Bi-manual Handling	5 min		%IS=32.8	Position requires sustained gripping strength for operating hand tools and equipment. Critical for manufacturing assembly line work.	Within Normal Limits	Yes
Balance		5 min	%IS=34.9	Job demands repetitive flexion and extension movements for data entry and computer work. Necessary for 6+ hours daily office tasks.	Within Normal Limits	No
Walk		5 min	%IS=33.0	Construction work requiring consistent bilateral strength for tool operation and material manipulation. Safety-critical job function.	Within Normal Limits	Yes
Climb Stairs		5 min	%IS=34.1	Position requires sustained gripping strength for operating hand tools and equipment. Critical for manufacturing assembly line work.	Within Normal Limits	Yes
Push/Pull Cart		5 min	%IS=33.3	Job demands repetitive flexion and extension movements for data entry and computer work. Necessary for 6+ hours daily office tasks.	Within Normal Limits	No
Carry		5 min	%IS=33.3	Requires frequent lifting of 25-50 lbs materials throughout 8-hour shift. Essential for warehouse operations and material handling tasks.	Within Normal Limits	Yes
Total Sit / Stand Time	**80 min**	**70 min**				

Legend: L=Left, R=Right, F=Flexion, E=Extension, %IS=% Industrial Standard, HR=Heart Rate

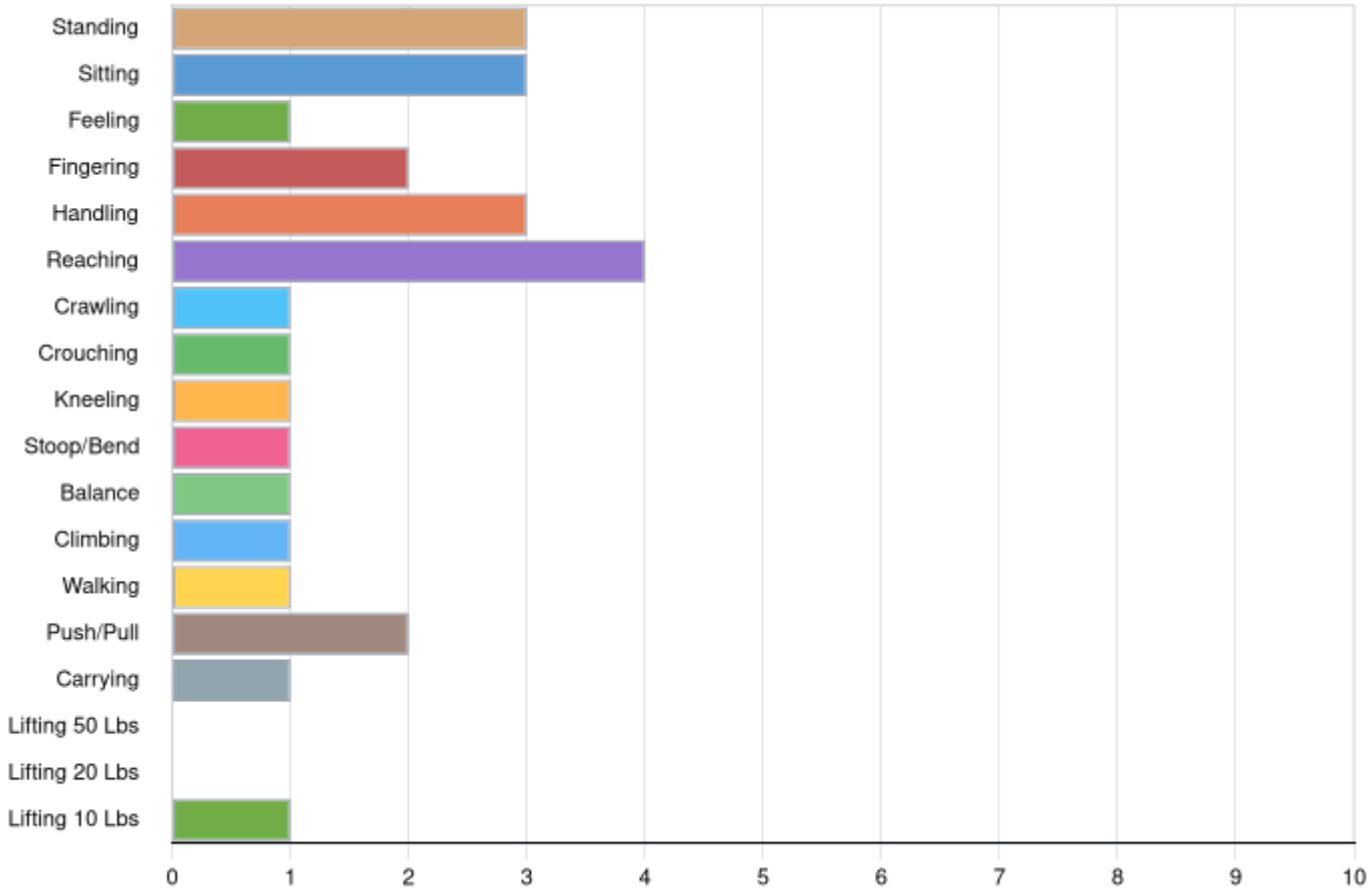
Consistency Overview

Observed Effort During Testing	Total Noted for all Tested Activities
Poor effort	4 out of 20 Tests
Fair to Average effort	7 out of 20 Tests
Good effort	9 out of 20 Tests

Consistent Crosschecks	Description	Pass	Fail
Hand grip rapid exchange	Rapid Exchange Grip was 15% less to equal that of the Std position 2 Hand Grip measure.		✓
Hand grip MVE	Position 1 through 5 displayed a bell curve showing greatest strength in position 2-3.		✓
Pinch grip key/tip/palmar ratio	Key grip was greater than palmar which was greater than tip grip.		✓
Dynamic lift HR fluctuation	Client displayed an increase in heart rate when weight and/or repetitions were increased (any dynamic lift: low, mid, high, overhead, or frequent).	✓	
ROM consistency check	During total spine ROM, the client provided three consecutive trials between 5 degrees and 10% of each other in a six-trial session.	✓	
Test/retest trial consistency	When tests were repeated the client displayed similar values and left/right deficiency.		✓
Dominant side monitoring	It is expected that if the client is Right-Handed, he/she will demonstrate approx.10% greater values on the dominant side – if Left-Handed then the values would be close to the same.		✓
Distraction test consistency	When performing distraction tests for sustained posture the client should demonstrate similar limitations and or abilities.		✓
Consistency with diagnosis	Based on the diagnosis and complaints of the individual it is expected that those issues would relate to a similar function performance pattern during testing.		✓
Coefficient of Variation (CV)	We would expect to see a CV less than 15% for a client that is deemed to be consistent.		✓

Client Perceived Activity Rating Chart

The Activity Rating Chart is a measure of the client's perceived ability level at the time of testing and is a representation of their subjective responses.



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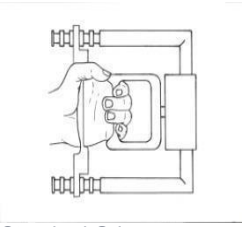
Hand Strength Standard

Sample Illustration:



Standard Grip

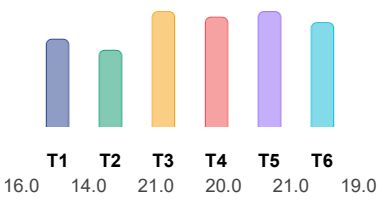
The client was tested in our facility using standardized assessment protocols. The test results were compared to normative data when available.

Results:

Demonstrated Activity	Avg. Force	Norm	% of Norm	%CV	Difference	Date
Hand Strength Standard	32.4 | 34.5	85.0 | 90.0	38% | 38%	14.2% | 17%	6.2%	10/31/2025

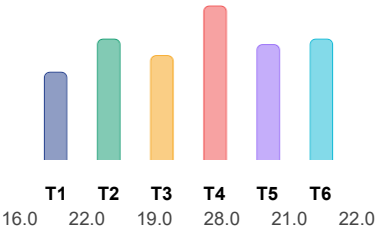
Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (weight)
Left	16	14	21	20	21	19	**18.5 lbs**
Right	16	22	19	28	21	22	**21.3 lbs**

Left Side



Average (weight): 32.4 lbs

Right Side



Average (weight): 34.5 lbs

Bilateral Difference: 2.1 lbs | CV: L=14.2% R=17.0% | Bilateral Deficiency: 6.2%

Heart Rate: Pre: 73 bpm Post: 75 bpm

Rating of Perceived Effort = Light

Comments: Hand Strength Standard performed with poor effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.

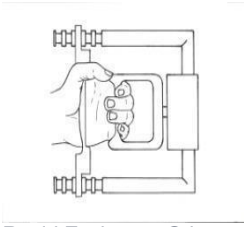
References:

Mathiowetz, V., et al. (1985). Grip and pinch strength: Normative data for adults. *Archives of Physical Medicine and Rehabilitation*, 66(2), 69–74.

Innes, E., & Straker, L. (1999). Reliability of work-related assessments. *Work*, 13(2), 107–124.

Hand Strength Rapid Exchange

Sample Illustration:



Rapid Exchange Grip

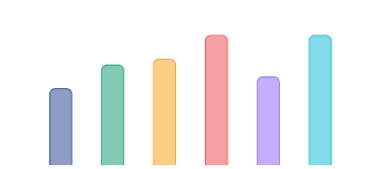
The client was tested in our facility using standardized assessment protocols. The test results were compared to normative data when available.

Results:

Demonstrated Activity	Avg. Force	Norm	% of Norm	%CV	Difference	Date
Hand Strength Rapid Exchange	31.6 | 35.6	85.0 | 90.0	37% | 40%	18.7% | 10.4%	11.2%	10/31/2025

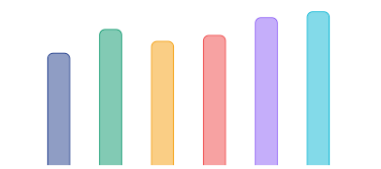
Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (weight)
Left	13	17	18	22	15	22	**17.8 lbs**
Right	19	23	21	22	25	26	**22.7 lbs**

Left Side



Average (weight): 31.6 lbs

Right Side



Average (weight): 35.6 lbs

Bilateral Difference: 4.0 lbs | CV: L=18.7% R=10.4% | Bilateral Deficiency: 11.2%

Heart Rate: Pre: 71 bpm Post: 75 bpm

Rating of Perceived Effort = Light

Comments: Hand Strength Rapid Exchange performed with poor effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.

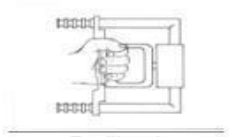
References:

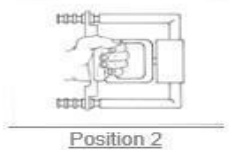
Mathiowetz, V., et al. (1985). Grip and pinch strength: Normative data for adults. *Archives of Physical Medicine and Rehabilitation*, 66(2), 69–74.

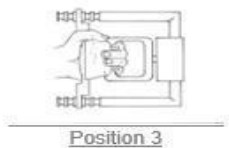
Innes, E., & Straker, L. (1999). Reliability of work-related assessments. *Work*, 13(2), 107–124.

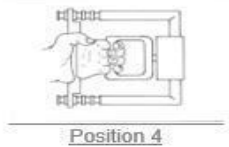
Hand Strength Mmve

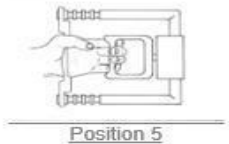
Sample Illustration:











Hand Strength MMVE

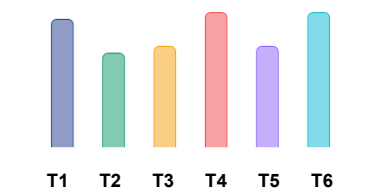
The client was tested in our facility using standardized assessment protocols. The test results were compared to normative data when available.

Results:

Demonstrated Activity	Avg. Force	Norm	% of Norm	%CV	Difference	Date
Hand Strength MMVE	31.3 | 33.9	85.0 | 90.0	37% | 38%	14.8% | 6.8%	7.7%	10/31/2025

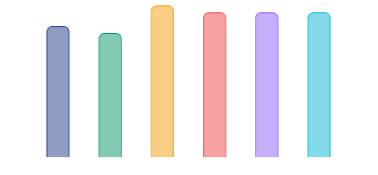
Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (weight)
Left	19	14	15	20	15	20	**17.2 lbs**
Right	19	18	22	21	21	21	**20.3 lbs**

Left Side



Average (weight): 31.3 lbs

Right Side



Average (weight): 33.9 lbs

Bilateral Difference: 2.6 lbs | CV: L=14.8% R=6.8% | Bilateral Deficiency: 7.7%

Heart Rate: Pre: 71 bpm Post: 76 bpm

Rating of Perceived Effort = Somewhat hard

Comments: Hand Strength Mmve performed with fair to average effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.

References:

Mathiowetz, V., et al. (1985). Grip and pinch strength: Normative data for adults. *Archives of Physical Medicine and Rehabilitation*, 66(2), 69–74.

Innes, E., & Straker, L. (1999). Reliability of work-related assessments. *Work*, 13(2), 107–124.

Pinch Strength Key

Sample Illustration:

Key Pinch

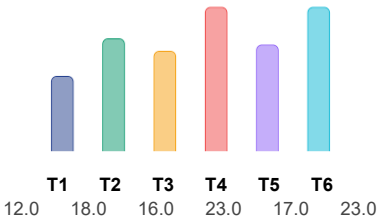
The client was tested using a hand grip evaluation device. It is expected that the dominant hand will display 10% greater values than the non-dominant hand.

Results:

Demonstrated Activity	Avg. Force	Norm	% of Norm	%CV	Difference	Date
Pinch Strength Key	32.1 | 34.8	110.5 | 120.8	29% | 29%	21.4% | 4.9%	7.6%	10/31/2025

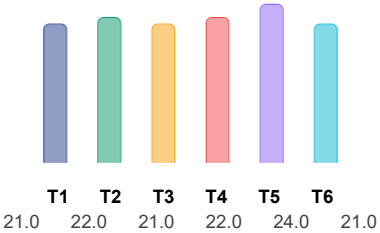
Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (weight)
Left	12	18	16	23	17	23	**18.2 lbs**
Right	21	22	21	22	24	21	**21.8 lbs**

Left Side



Average (weight): 32.1 lbs

Right Side



Average (weight): 34.8 lbs

Bilateral Difference: 2.6 lbs | CV: L=21.4% R=4.9% | Bilateral Deficiency: 7.6%

Heart Rate: Pre: 72 bpm Post: 76 bpm

Rating of Perceived Effort = Somewhat hard

Comments: Pinch Strength Key performed with fair to average effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.

References:

Mathiowetz, V., et al. (1985). Grip and pinch strength: Normative data for adults. *Archives of Physical Medicine and Rehabilitation*, 66(2), 69–74.

Peters, M. J., & Baldwin, M. L. (2007). Pinch strength measurement considerations in clinical evaluation. *Clinical Biomechanics*, 22(9), 1022–1028.

Pinch Strength Tip

Sample Illustration:

Tip

Pinch

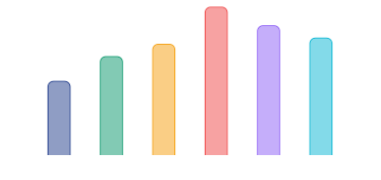
The client was tested using a hand grip evaluation device. It is expected that the dominant hand will display 10% greater values than the non-dominant hand.

Results:

Demonstrated Activity	Avg. Force	Norm	% of Norm	%CV	Difference	Date
Pinch Strength Tip	32.3 | 34.8	110.5 | 120.8	29% | 29%	20.6% | 9.3%	7.2%	10/31/2025

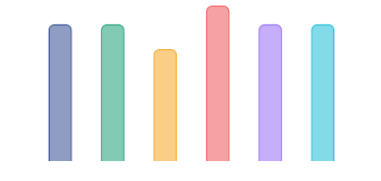
Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (weight)
Left	12	16	18	24	21	19	**18.3 lbs**
Right	22	22	18	25	22	22	**21.8 lbs**

Left Side



Average (weight): 32.3 lbs

Right Side



Average (weight): 34.8 lbs

Bilateral Difference: 2.5 lbs | CV: L=20.6% R=9.3% | Bilateral Deficiency: 7.2%

Heart Rate: Pre: 72 bpm Post: 76 bpm

Rating of Perceived Effort = Somewhat hard

Comments: Pinch Strength Tip performed with fair to average effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.

References:

Mathiowetz, V., et al. (1985). Grip and pinch strength: Normative data for adults. *Archives of Physical Medicine and Rehabilitation*, 66(2), 69–74.

Peters, M. J., & Baldwin, M. L. (2007). Pinch strength measurement considerations in clinical evaluation. *Clinical Biomechanics*, 22(9), 1022–1028.

Pinch Strength Palmar

Sample Illustration:

Palmar Pinch

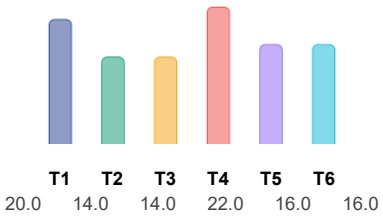
The client was tested using a hand grip evaluation device. It is expected that the dominant hand will display 10% greater values than the non-dominant hand.

Results:

Demonstrated Activity	Avg. Force	Norm	% of Norm	%CV	Difference	Date
Pinch Strength Palmar	31.0 | 34.6	110.5 | 120.8	28% | 29%	17.6% | 11.7%	10.5%	10/31/2025

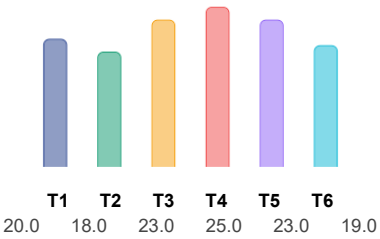
Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (weight)
Left	20	14	14	22	16	16	**17.0 lbs**
Right	20	18	23	25	23	19	**21.3 lbs**

Left Side



Average (weight): 31.0 lbs

Right Side



Average (weight): 34.6 lbs

Bilateral Difference: 3.6 lbs | CV: L=17.6% R=11.7% | Bilateral Deficiency: 10.5%

Heart Rate: Pre: 71 bpm Post: 75 bpm

Rating of Perceived Effort = Light

Comments: Pinch Strength Palmar performed with good effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

References:

Mathiowetz, V., et al. (1985). Grip and pinch strength: Normative data for adults. *Archives of Physical Medicine and Rehabilitation*, 66(2), 69–74.

Peters, M. J., & Baldwin, M. L. (2007). Pinch strength measurement considerations in clinical evaluation. *Clinical Biomechanics*, 22(9), 1022–1028.

Static Lift Low

Sample Illustration:

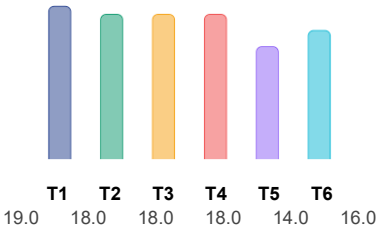
Static Lift Low

The client was tested using a dynamic lift evaluation apparatus. Results were compared to normative data.

Results:

Demonstrated Activity	Avg. Weight (lb)	CV%	Test Date
Static Lift Low	31.3	10%	10/31/2025

Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (weight)
19 lbs	18 lbs	18 lbs	18 lbs	14 lbs	16 lbs	**17.2 lbs**



Average (weight): 31.3 lbs

Heart Rate: Pre: 71 bpm Post: 76 bpm

Rating of Perceived Effort = Very hard

Comments: Static Lift Low could not be fully demonstrated due to pain/discomfort. Client attempted but unable to complete all trials at maximum effort. Limited by symptoms.

References:

Matheson, L. N., et al. (1995). Development of a database of functional assessment measures related to work disability. *Journal of Occupational Rehabilitation*, 5(4), 191–204.

Snook, S. H., & Ciriello, V. M. (1991). The design of manual handling tasks: Revised tables of maximum acceptable weights and forces. *Ergonomics*, 34(9), 1197–1213.

NIOSH (1994). Applications Manual for the Revised NIOSH Lifting Equation. *U.S. Department of Health and Human Services, Cincinnati, OH.*

Dynamic Frequent Lift Low

Sample Illustration:

Dynamic Lift Low

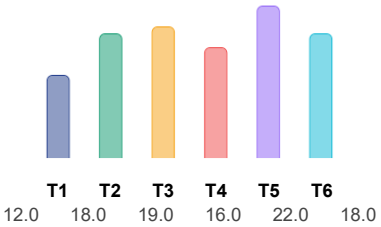
The client was tested using a dynamic lift evaluation apparatus. Results were compared to normative data.

Note: frequent lifts are four lifts per cycle.

Results:

Demonstrated Activity	Avg. Weight (lb)	CV%	Test Date
Dynamic Frequent Lift Low	31.8	17%	10/31/2025

Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (weight)
12 lbs	18 lbs	19 lbs	16 lbs	22 lbs	18 lbs	**17.5 lbs**



Average (weight): 31.8 lbs

Heart Rate: Pre: 74 bpm Post: 75 bpm

Rating of Perceived Effort = Light

Endpoint condition (for full description refer to references): Not recorded.

Comments: Dynamic Frequent Lift Low performed with good effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

References:

Matheson, L. N., et al. (2002). Reliability and validity of functional capacity evaluation using dynamic lifting tests. *Work*, 19(2), 87–93.

Waters, T. R., et al. (1993). Revised NIOSH equation for the design and evaluation of manual lifting tasks. *Ergonomics*, 36(7), 749–776.

Snook, S. H., & Ciriello, V. M. (1991). *Ergonomics*, 34(9), 1197–1213.

Dynamic Frequent Lift Mid

Sample Illustration:

Dynamic Lift Mid

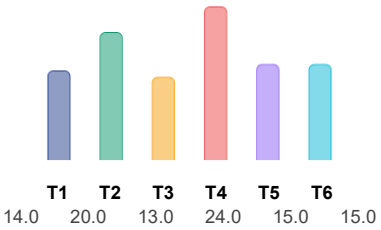
The client was tested using a dynamic lift evaluation apparatus. Results were compared to normative data.

Note: frequent lifts are four lifts per cycle.

Results:

Demonstrated Activity	Avg. Weight (lb)	CV%	Test Date
Dynamic Frequent Lift Mid	31.0	23%	10/31/2025

Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (weight)
14 lbs	20 lbs	13 lbs	24 lbs	15 lbs	15 lbs	**16.8 lbs**



Average (weight): 31.0 lbs

Heart Rate: Pre: 71 bpm Post: 76 bpm

Rating of Perceived Effort = Light

Endpoint condition (for full description refer to references): Not recorded.

Comments: Dynamic Frequent Lift Mid performed with good effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

References:

Matheson, L. N., et al. (2002). Reliability and validity of functional capacity evaluation using dynamic lifting tests. *Work*, 19(2), 87–93.

Waters, T. R., et al. (1993). Revised NIOSH equation for the design and evaluation of manual lifting tasks. *Ergonomics*, 36(7), 749–776.

Snook, S. H., & Ciriello, V. M. (1991). *Ergonomics*, 34(9), 1197–1213.

Cervical Spine Flexion Extension

Sample Illustration:

Cervical Flex/Ext

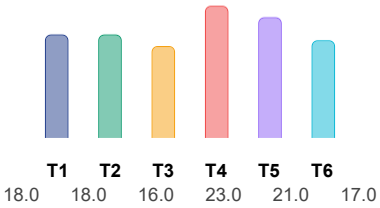
The client was tested using range of motion inclinometers. Results were compared to normative data.

Results:

Area Evaluated	Data	Valid?	Norm	% of Norm	Test Date
Cervical Spine Flexion Extension	36 °	Pass	60 °	60%	10/31/2025

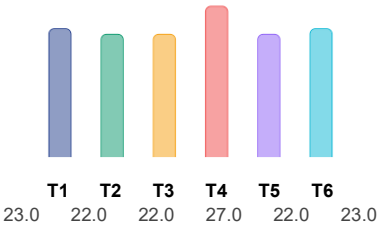
Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (range of motion)
Left	18	18	16	23	21	17	**18.8 °**
Right	23	22	22	27	22	23	**23.2 °**

Left Side



Average (range of motion): 32.5 °

Right Side



Average (range of motion): 35.9 °

Bilateral Difference: 3.4 ° | CV: L=12.8% R=7.6% | Bilateral Deficiency: 9.4%

Heart Rate: Pre: 71 bpm Post: 76 bpm

Rating of Perceived Effort = Light

Comments: Cervical Spine Flexion Extension performed with good effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

References:

American Academy of Orthopaedic Surgeons (AAOS). (1965). *Joint Motion: Method of Measuring and Recording.* Chicago: AAOS.

Norkin, C. C., & White, D. J. (2016). *Measurement of Joint Motion: A Guide to Goniometry.* F.A. Davis Company.

Cervical Spine Lateral Flexion

Sample Illustration:

Cervical Lateral Flexion

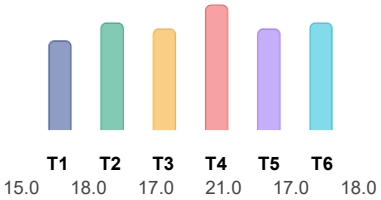
The client was tested using range of motion inclinometers. Results were compared to normative data.

Results:

Area Evaluated	Data	Valid?	Norm	% of Norm	Test Date
Cervical Spine Lateral Flexion	35 °	Pass	60 °	58%	10/31/2025

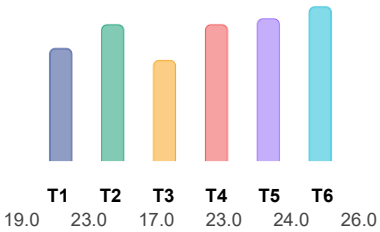
Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (range of motion)
Left	15	18	17	21	17	18	**17.7 °**
Right	19	23	17	23	24	26	**22.0 °**

Left Side



Average (range of motion): 31.9 °

Right Side



Average (range of motion): 34.9 °

Bilateral Difference: 3.0 ° | CV: L=10.2% R=13.9% | Bilateral Deficiency: 8.6%

Heart Rate: Pre: 74 bpm Post: 75 bpm

Rating of Perceived Effort = Hard (heavy)

Comments: Cervical Spine Lateral Flexion performed with good effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

References:

American Academy of Orthopaedic Surgeons (AAOS). (1965). *Joint Motion: Method of Measuring and Recording.* Chicago: AAOS.

Norkin, C. C., & White, D. J. (2016). *Measurement of Joint Motion: A Guide to Goniometry.* F.A. Davis Company.

Cervical Spine Rotation

Sample Illustration:

Cervical Rotation

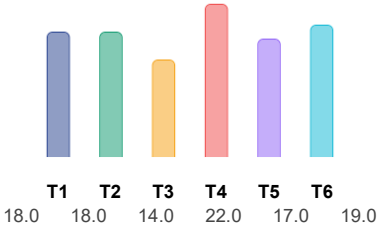
The client was tested in our facility using standardized assessment protocols. The test results were compared to normative data when available.

Results:

Demonstrated Activity	Avg. Force	Norm	% of Norm	%CV	Difference	Date
Cervical Spine Rotation	31.8 | 33.3	85.0 | 90.0	37% | 37%	13.2% | 10.1%	4.5%	10/31/2025

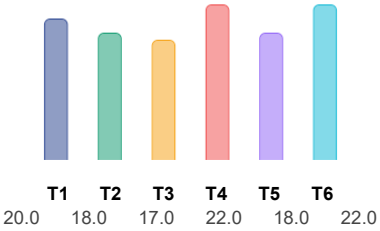
Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (range of motion)
Left	18	18	14	22	17	19	**18.0 °**
Right	20	18	17	22	18	22	**19.5 °**

Left Side



Average (weight): 31.8 lbs

Right Side



Average (weight): 33.3 lbs

Bilateral Difference: 1.5 lbs | CV: L=13.2% R=10.1% | Bilateral Deficiency: 4.5%

Heart Rate: Pre: 71 bpm Post: 75 bpm

Rating of Perceived Effort = Somewhat hard

Comments: Cervical Spine Rotation performed with fair to average effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.

References:

American Academy of Orthopaedic Surgeons (AAOS). (1965). *Joint Motion: Method of Measuring and Recording.* Chicago: AAOS.

Norkin, C. C., & White, D. J. (2016). *Measurement of Joint Motion: A Guide to Goniometry.* F.A. Davis Company.

Lumbar Spine Flexion Extension

Sample Illustration:

Lumbar Flex/Ext

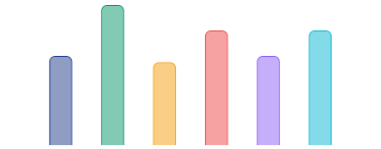
The client was tested using range of motion inclinometers. Results were compared to normative data.

Results:

Area Evaluated	Data	Valid?	Norm	% of Norm	Test Date
Lumbar Spine Flexion Extension	35 °	Pass	60 °	59%	10/31/2025

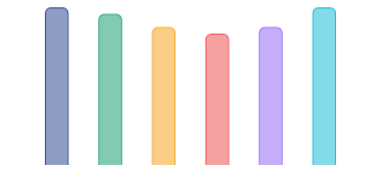
Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (range of motion)
Left	14	22	13	18	14	18	**16.5 °**
Right	24	23	21	20	21	24	**22.2 °**

Left Side



Average (range of motion): 31.0 °

Right Side



Average (range of motion): 35.3 °

Bilateral Difference: 4.3 ° | CV: L=19.1% R=7.1% | Bilateral Deficiency: 12.1%

Heart Rate: Pre: 74 bpm Post: 75 bpm

Rating of Perceived Effort = Hard (heavy)

Comments: Lumbar Spine Flexion Extension performed with good effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

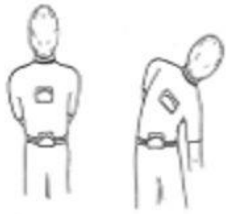
References:

American Academy of Orthopaedic Surgeons (AAOS). (1965). *Joint Motion: Method of Measuring and Recording.* Chicago: AAOS.

Norkin, C. C., & White, D. J. (2016). *Measurement of Joint Motion: A Guide to Goniometry.* F.A. Davis Company.

Lumbar Spine Lateral Flexion

Sample Illustration:



Lumbar Lateral Flexion

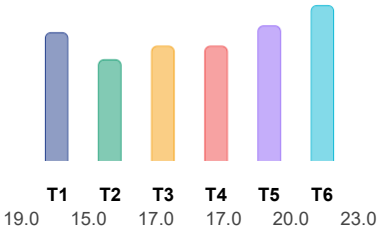
The client was tested using range of motion inclinometers. Results were compared to normative data.

Results:

Area Evaluated	Data	Valid?	Norm	% of Norm	Test Date
Lumbar Spine Lateral Flexion	33 °	Pass	60 °	55%	10/31/2025

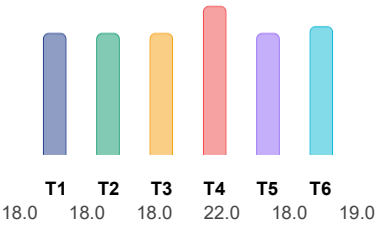
Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average (range of motion)
Left	19	15	17	17	20	23	**18.5 °**
Right	18	18	18	22	18	19	**18.8 °**

Left Side



Average (range of motion): 32.5 °

Right Side



Average (range of motion): 32.8 °

Bilateral Difference: 0.3 ° | CV: L=13.9% R=7.8% | Bilateral Deficiency: 0.8%

Heart Rate: Pre: 73 bpm Post: 76 bpm

Rating of Perceived Effort = Light

Comments: Lumbar Spine Lateral Flexion performed with poor effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

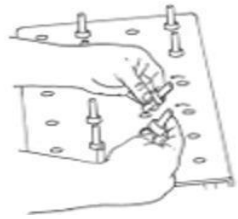
References:

American Academy of Orthopaedic Surgeons (AAOS). (1965). *Joint Motion: Method of Measuring and Recording.* Chicago: AAOS.

Norkin, C. C., & White, D. J. (2016). *Measurement of Joint Motion: A Guide to Goniometry.* F.A. Davis Company.

Occupational Tasks Methods Time Measurement Analysis

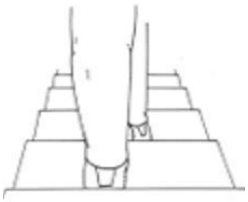
Sample Illustration:



Bi-manual Handling

Balance

Walk



Climb Stairs

Push/Pull Cart

Carry

The client was tested in our facility using MTM. The test results were compared to industrial standards.

Bi-Manual Handling - 10/31/2025 4:43:01 PM							
Trial	**Side**	**Weight/Plane**	**Distance/Posture**	**Reps**	**Time (sec)**	**%IS**	**Time Set Completed**
1	Both	Immediate	Standing	10	15.7	68.2	
2	Both	Immediate	Standing	10	14.4	74.3	
3	Both	Immediate	Standing	10	9.1	118.2	
Avg.				10.0	13.07	86.9	39.2
Total IS%:						86.9%	

Heart Rate: Pre: N/A bpm Post: N/A bpm

Test Images:

No images found.
Comments: Bi-manual Handling performed with fair to average effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

Balance - 10/31/2025 4:44:03 PM							
Trial	**Side**	**Weight/Plane**	**Distance/Posture**	**Reps**	**Time (sec)**	**%IS**	**Time Set Completed**
1	Both		Standing	1	10.8	56.7	
2	Both		Standing	1	11.2	54.6	
3	Both		Standing	1	10.9	56.1	
Avg.				1.0	10.97	55.8	31.6
Total IS%:						56%	

Heart Rate: Pre: N/A bpm Post: N/A bpm

Test Images:

No images found.
Comments: Balance performed with good effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

Walk - 10/31/2025 4:44:07 PM							
Trial	**Side**	**Weight/Plane**	**Distance/Posture**	**Reps**	**Time (sec)**	**%IS**	**Time Set Completed**
1	Both		Standing	1	14.3	23.5	
2	Both		Standing	1	10.7	49.9	
3	Both		Standing	1	8.0	69.7	
Avg.				1.0	11.00	47.7	33.0
Total IS%:						47.7%	

Heart Rate: Pre: N/A bpm Post: N/A bpm

Test Images:

No images found.
Comments: Walk performed with good effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

Climb Stairs - 10/31/2025 4:44:57 PM							
Trial	**Side**	**Weight/Plane**	**Distance/Posture**	**Reps**	**Time (sec)**	**%IS**	**Time Set Completed**
1	Both		Standing	1	5.2	141.2	
2	Both		Standing	1	5.2	141.2	
3	Both		Standing	1	5.3	140	
Avg.				1.0	5.2	140	40.9
Total IS%:						140%	

Heart Rate: Pre: N/A bpm Post: N/A bpm

Test Images:

No images found.
Comments: Climb Stairs performed with fair to average effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

Push Pull Cart - 10/31/2025 4:45:01 PM							
Trial	**Side**	**Weight/Plane**	**Distance/Posture**	**Reps**	**Time (sec)**	**%IS**	**Time Set Completed**
1	Both		Standing	1	4.2	58.3	
2	Both		Standing	1	5.3	46.2	
3	Both		Standing	1	6.6	37.1	
Avg.				1.0	13.33	48	40.0
Total IS%:						48%	

Heart Rate: Pre: N/A bpm Post: N/A bpm

Test Images:

No images found.
Comments: Push/Pull Cart performed with good effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.

Carry - 10/31/2025 4:45:28 PM							
Trial	**Side**	**Weight/Plane**	**Distance/Posture**	**Reps**	**Time (sec)**	**%IS**	**Time Set Completed**
1	Both		Standing	1	17.9	50.6	
2	Both		Standing	1	6.9	144.6	
3	Both		Standing	1	12.1	83.4	
Avg.				1.0	12.30	92.9	36.9
Total IS%:						92.9%	

Heart Rate: Pre: N/A bpm Post: N/A bpm

Test Images:

No images found.
Comments: Carry performed with poor effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials. Multiple clinical observations documented.

References:

Anderson, D.S. and Edstrom D.P. "MTM Personnel Selection Tests; Validation at a Northwestern National Life Insurance Company". Journal of Methods-Time Measurement, 15, (3).

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Chyatte, S.B. and Birdsong, J.H. (1972) "Methods time measurement in assessment of motor performance". Archives of Physical Medicine and Rehabilitation, 53, 38-44.

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Grant, G.W.B., Moores, B. and Whelan, E. (1975) "Applications of Methods-time measurement in training centers for the mentally handicapped". Journal of Methods-Time Measurement, 11, 23-30.

Appendix One: Reference Charts

Perceived Exertion and Pain Scales

Perceived Exertion	Rating (RPE)	Minimal Heart Rate	Mean Heart Rate	Maximal Heart Rate
No exertion at all	6	69	77	91
Extremely light	7	76	85	101
	8	83	93	111
Very light	9	89	101	122
	10	96	110	132
Light	11	103	118	142
	12	110	126	153
Somewhat hard	13	116	135	163
	14	123	143	173
Hard(heavy)	15	130	151	184
	16	137	159	194
Very hard	17	143	168	204
	18	150	176	215
Extremely hard	19	157	184	225
Maximal exertion	20	164	193	235

***Borg G. Borg's Perceived Exertion and Pain Scales. Human Kinetics. 1998.**

Physical Demand Characteristics of Work

Physical Demand Characteristics of Work			
(Dictionary of Occupational Titles - Volume II, Fourth Edition, Revised 1991)			
Physical Demand Level	**Occasional (0–33%)**	**Frequent (34–66%)**	**Constant (67–100%)**
Sedentary	Up to 10 lbs of force	Negligible weight	Negligible weight
Light	Up to 20 lbs of force	Up to 10 lbs of force	Negligible weight
Medium	20–50 lbs of force	10–25 lbs of force	Up to 10 lbs of force
Heavy	50–100 lbs of force	25–50 lbs of force	10–20 lbs of force
Very Heavy	Over 100 lbs of force	Over 50 lbs of force	Over 20 lbs of force

PDC Categories based on Sustainable Energy Level

PDC Categories based on Sustainable Energy Level (Energy Cost) over an 8-hour workday	
PDC Category	**Sustainable Energy Level**
Sedentary	< 1.7 Kcal/min
Light	1.7 to 3.2 Kcal/min
Medium	3.3 to 5.7 Kcal/min
Heavy	5.8 to 8.2 Kcal/min
Very Heavy	8.3 or more Kcal/min

General Patterns of Activity Descriptors

(S) Sedentary Work

Exerting up to 10 lbs of force occasionally and/or a negligible amount of force frequently to lift, carry, push, pull, or otherwise move objects, including the human body. Sedentary work involves sitting most of the time but may involve walking or standing for brief periods of time. Jobs are sedentary if walking and standing are required occasionally and all other sedentary criteria are met.

(L) Light Work

Exerting up to 20 lb of force occasionally, and/or up to 10 lb of force frequently, and/or a negligible amount of force constantly to move objects. Physical demand requirements are in excess of those for sedentary work. Even though the weight lifted may be only negligible, a job should be rated Light Work: (1) when it requires walking or standing to a significant degree; or (2) when it requires sitting most of the time but entails pushing and/or pulling of arm or leg controls; and/or (3) when the job requires working at a production rate pace entailing the constant pushing and/or pulling of materials even though the weight of those materials is negligible. The constant stress and strain of maintaining a production rate pace, especially in an industrial setting, can be and is physically exhausting

(M) Medium Work

Exerting 20 to 50 lbs of force occasionally, and/or 10 to 25 lbs of force frequently, and/or greater than negligible up to 10 lbs of force constantly to move objects. Physical demand requirements are in excess of those for light work.

(H) Heavy Work

Exerting 50 to 100 lbs of force occasionally, and/or 25 to 50 lbs of force frequently, and/or 10 to 20 lbs of force constantly to move objects. Physical demand requirements are in excess of those for medium work.

'*Occasionally' indicates that an activity or condition exists up to one third of the time; 'frequently' indicates that an activity or condition exists from one third to two thirds of the time; 'constantly' indicates that an activity or condition exists two thirds or more of the time.

Dynamic Lift Test End Point Conditions

Test End Point Conditions	
CONDITION	**DESCRIPTION**
Biomechanical	The biomechanical stopping point follows the biomechanics of the person as they perform the activity. While you will not be able to teach proper body mechanics during the relatively short duration of an FCE, you should encourage proper body mechanics. Ultimately, you will be assessing the client's capacity as he or she moves in their usual way to complete each task. The biomechanical stopping point relies on your clinical observation skills and knowledge of proper body mechanics.
Physiological	Physiological response to testing refers to the client's involuntary reactions to the tests. These reactions include heart rate, blood pressure, respiration rate, changes in pallor, and similar markers. The American College of Sports Medicine recommends keeping the client's heart rate below 85% of age-predicted maximum heart rate (APMHR) during physically demanding testing, with a recovery to 70% APMHR before commencing the next test.
Psychophysical	The psychophysical ending point is based on the client's perceived rate of exertion—that is, how the client feels or perceives the difficulty of the task. You can use a scale to rate the perception of difficulty, such as the Borg Scale, or simply ask the client to describe their comfort level with the activity. The test should be terminated at the point where the client feels they can no longer continue and has reached their maximum performance level.
Task Requirement	A fourth, but still important, stopping criterion is the task requirement. This applies more to return-to-work (RTW) testing when you know the specific physical demands of the job tasks and are assessing the client's ability to perform them. When the client's tested ability matches the defined job requirement, you should stop the test because continuing beyond the task requirement could put the client at unnecessary risk.

Appendix Two: Digital Library