Functional Abilities Determination

Claimant Name: Michael Thompson

Claimant #: CLM789456

Date of Evaluation(s): 08/29/2025

CONFIDENTIAL INFORMATION ENCLOSED

WorkerFacts Clinic
456 Medical Plaza, Suite 300 Professional Building
Phone: +1 (312) 555-0123 Fax: 757-273-6198

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- Whole Body Strength

Appendix One: Reference Charts

Appendix Two: Digital Library

MedSource

Functional Abilities Determination

456 Medical Plaza, Suite 300 Professional Building

Phone: +1 (312) 555-0123 | Email: dr.johnson@advancedrehab.com

Report Date:
08/29/2025

Michael Thompson

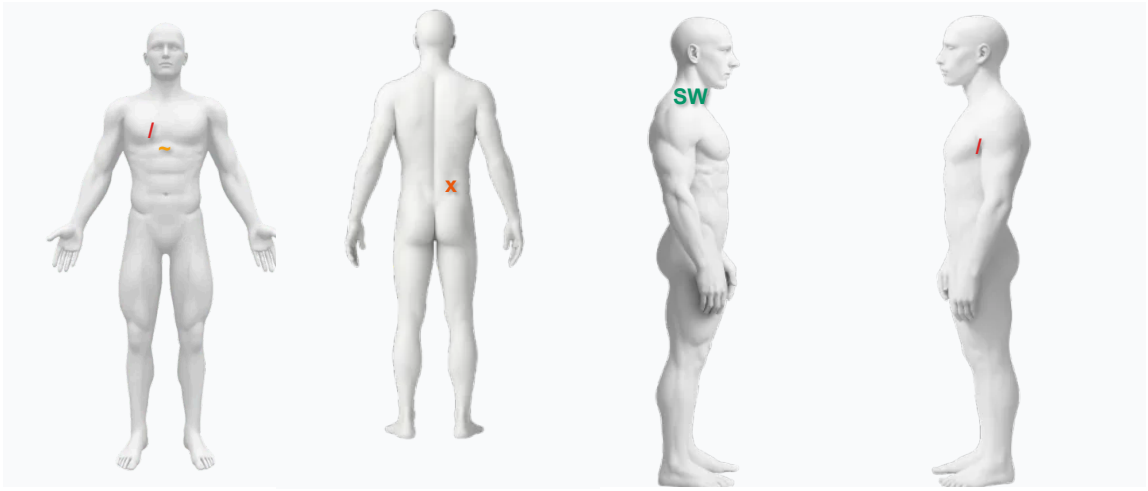
Client Information

Name:	Michael Thompson	**ID:**	CLM789456
Address:	789 Oak Street, Apartment 4B	**DOB (Age):**	1985-03-15 (40)
Home Phone:	+1 (555) 987-6543	**Gender:**	N/A
Work Phone:	+1 (555) 234-5678	**Height:**	175 cm
Occupation:	Construction Worker	**Weight:**	80 kg
Employer(SIC):	BuildRight Construction Co.	**Dominant Hand:**	N/A
Insurance:	Workers Compensation Board	**Referred By:**	Dr. Emily Rodriguez
Physician:	Dr. Emily Rodriguez	**Resting Pulse:**	72 bpm
		BP Sitting:	120/80
		Tested By:	Dr. Sarah Johnson

Mechanism and History of Injury

Date	Description
04/2011	Lower back injury sustained during construction work on March 10, 2024. Initial treatment included physical therapy and pain management. Patient reports persistent pain and limited mobility affecting daily activities and work capacity.

Pain/Symptom Illustration



Back Shoulder Left Arm

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

Referral Questions

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

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

**Slight decrease in flexion but not a limitation to return to duties.*

Range of Motion Assessment Documentation:

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

L4-L5 region shows marked limitation. Forward flexion produces pain at 45°, side bending limited to 20° bilaterally with protective muscle guarding.

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

Manual muscle testing reveals 4/5 strength in hip flexors, 3+/5 in back extensors. Significant weakness noted during sustained contractions.

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

Cannot perform heavy lifting >20lbs, prolonged standing >30min, or repetitive bending.

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

Ergonomic workstation setup, mechanical lifting aids, job rotation every 2 hours, modified work schedule with frequent breaks.

Was the client consistent and reliable in their efforts?

Yes, client demonstrated consistent effort throughout evaluation. No signs of symptom magnification or malingering behaviors observed.

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

Status: PASS

Comments:

Light duty work capacity. Occasional lifting up to 20lbs, frequent lifting up to 10lbs, with restrictions on prolonged static positioning.

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:

Status: FAIL

Comments:

No, client not demonstrated consistent effort throughout evaluation. No signs of symptom magnification or malingering behaviors observed.

What would be the Physical Demand Classification for this client?

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

Physical Demand Level	OCCASIONAL 0-33% of the workday	FREQUENT 34-66% of the workday	CONSTANT 67-100% of the workday
Sedentary	1 - 10 lbs.	Negligible	Negligible
Light	11 - 20 lbs.	1 - 10 lbs.	Negligible
Medium	21 - 50 lbs.	11 - 25 lbs.	1 - 10 lbs.
Heavy	51 - 100 lbs.	26 - 50 lbs.	11 - 20 lbs.
Very Heavy	Over 100 lbs.	Over 50 lbs.	Over 20 lbs.

Physical Demand Assessment Documentation:


Conclusions

Based on the comprehensive functional capacity evaluation, this client demonstrates light duty work capacity. Recommendations include occasional lifting up to 20lbs, frequent lifting up to 10lbs, with restrictions on prolonged static positioning. Return to work feasible with appropriate workplace accommodations and gradual progression.

Signature of Evaluator

Date: 08/29/2025

Dr. Sarah Johnson

License: FCE789456123

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=18.0 R=21.2	Requires frequent lifting of 25-50 lbs materials throughout 8-hour shift. Essential for warehouse operations and material handling tasks.	Target: 25 lbs	Yes
Hand Strength-Rapid-Exchange	5 min		L=17.7 R=20.3	Requires frequent lifting of 25-50 lbs materials throughout 8-hour shift. Essential for warehouse operations and material handling tasks.	Target: 25 lbs	Yes
Pinch Strength-Key	5 min		L=19.7 R=21.8	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=19.2 R=22.2	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=18.2 R=21.2	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 Flexion-Extension		5 min	F=19.50 E=24.00	Construction work requiring consistent bilateral strength for tool operation and material manipulation. Safety-critical job function.	Target: 25 lbs	Yes
Cervical Lateral-Flexion		5 min	L=17.50 R=23.83	Job demands repetitive flexion and extension movements for data entry and computer work. Necessary for 6+ hours daily office tasks.	Target: 25 lbs	No
Hip Muscle-Flexion	5 min		F=17.67 E=21.83	Position requires sustained gripping strength for operating hand tools and equipment. Critical for manufacturing assembly line work.	Target: 25 lbs	Yes
Hip Muscle-Extension	5 min		F=19.33 E=19.67	Essential for patient care activities including lifting, transferring, and mobility assistance. Required for healthcare worker position.	Target: 25 lbs	Yes
Shoulder Muscle-Flexion		5 min	F=17.17 E=18.67	Position requires sustained gripping strength for operating hand tools and equipment. Critical for manufacturing assembly line work.	Target: 25 lbs	Yes
Shoulder Muscle-Abduction		5 min	F=17.67 E=22.67	Essential for patient care activities including lifting, transferring, and mobility assistance. Required for healthcare worker position.	Target: 25 lbs	Yes
Cervical Spine-Flexion-Extension		5 min	F=17.33 E=20.67	Construction work requiring consistent bilateral strength for tool operation and material manipulation. Safety-critical job function.	Target: 25 lbs	Yes
Lumbar Spine-Flexion-Extension		5 min	F=18.50 E=21.67	Job demands repetitive flexion and extension movements for data entry and computer work. Necessary for 6+ hours daily office tasks.	Target: 25 lbs	No
Shoulder Rom-Flexion-Extension		5 min	F=17.50 E=22.67	Job demands repetitive flexion and extension movements for data entry and computer work. Necessary for 6+ hours daily office tasks.	Target: 25 lbs	No

Activity Tested	Sit Time	Stand Time	Test Results	Job Description	Job Requirements	Job Match (Yes/No)
Hip Rom-Flexion-Extension	5 min		F=18.33 E=22.00	Job demands repetitive flexion and extension movements for data entry and computer work. Necessary for 6+ hours daily office tasks.	Target: 25 lbs	No
Index Dip-Flexion-Extension	5 min		F=15.00 E=22.67	Construction work requiring consistent bilateral strength for tool operation and material manipulation. Safety-critical job function.	Target: 25 lbs	Yes
ROM Hand/Foot						
Thumb Ip-Flexion-Extension	5 min		F=17.00 E=22.00	Essential for patient care activities including lifting, transferring, and mobility assistance. Required for healthcare worker position.	Target: 25 lbs	Yes
Occupational Tasks						
Fingering	5 min		%IS=18.9	Construction work requiring consistent bilateral strength for tool operation and material manipulation. Safety-critical job function.	Target: 25 lbs	Yes
Handling	5 min		%IS=20.7	Essential for patient care activities including lifting, transferring, and mobility assistance. Required for healthcare worker position.	Target: 25 lbs	Yes
Reach Immediate		5 min	%IS=19.8	Construction work requiring consistent bilateral strength for tool operation and material manipulation. Safety-critical job function.	Target: 25 lbs	Yes
Cardio						
Mcaft Step-Test	5 min		L=18.8 R=23.3	Essential for patient care activities including lifting, transferring, and mobility assistance. Required for healthcare worker position.	Target: 25 lbs	Yes
Bruce Treadmill-Test	5 min		L=21.2 R=22.2	Essential for patient care activities including lifting, transferring, and mobility assistance. Required for healthcare worker position.	Target: 25 lbs	Yes
Kasch Step-Test	5 min		L=18.2 R=21.3	Essential for patient care activities including lifting, transferring, and mobility assistance. Required for healthcare worker position.	Target: 25 lbs	Yes
Total Sit / Stand Time	**120 min**	**45 min**				

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

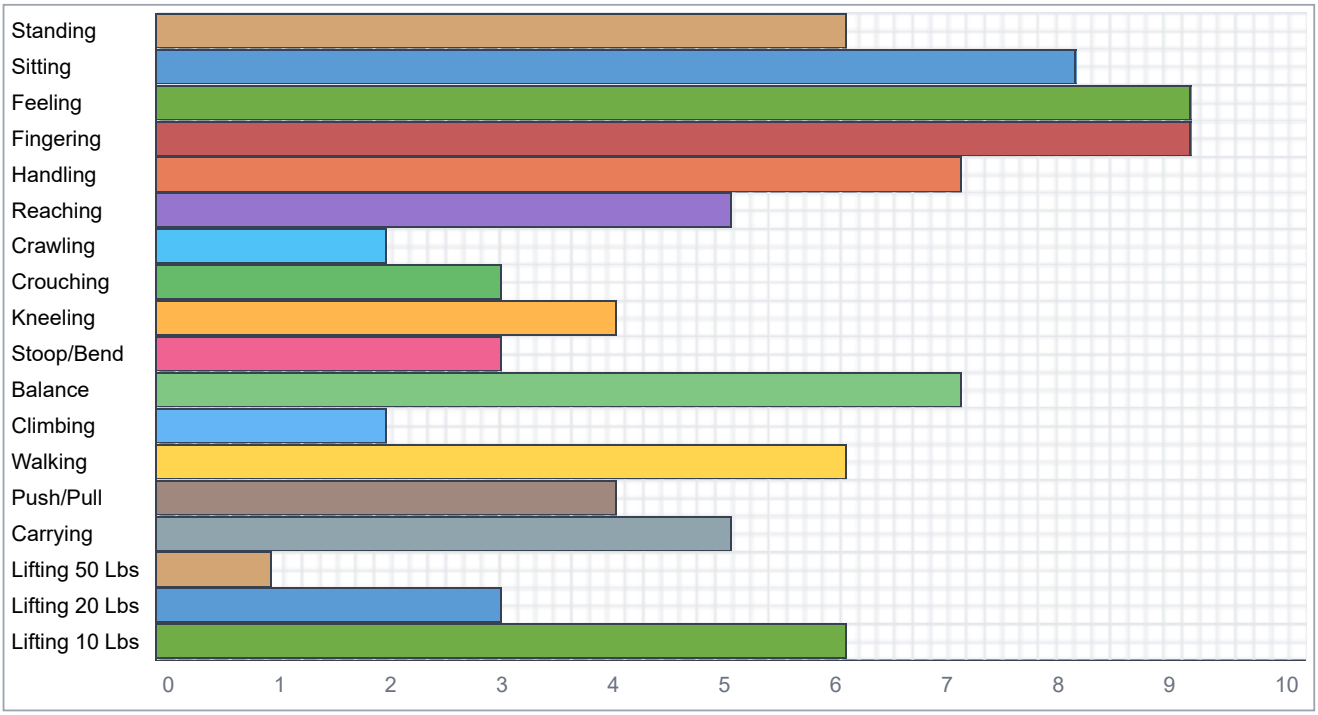
Consistency Overview:

Observed Effort During Testing	Total Noted for all Tested Activities
Poor effort	2 out of 23 Tests
Fair to Average effort	11 out of 23 Tests
Good effort	10 out of 23 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.	N/A	N/A
Hand grip MVE	Position 1 through 5 displayed a bell curve showing greatest strength in position 2-3.	N/A	N/A
Pinch grip key/tip/palmar ratio	Key grip was greater than palmar which was greater than tip grip.		✓
Static horizontal validity	After static leg lift, the client was backed up 6 inches and displayed 33% less strength.	N/A	N/A
Dynamic lift HR fluctuation	Client displayed an increase in heart rate when weight and / or repetitions were increased.	N/A	N/A
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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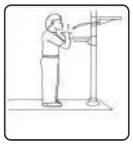
Hand Strength-Standard

Sample Illustration:


Static High


Static Low


Static Mid


Static Pull

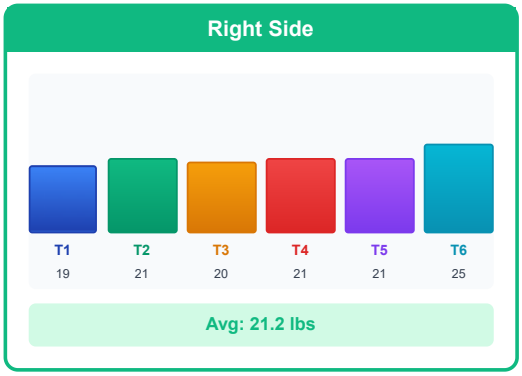

Static Push

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 (lb)	Norm (lb)	% age Norm	% age CV	Difference	Test Date
	Left | Right	L | R	L | R	L | R	Prev | Total	
Hand Strength-Standard	18.0 | 21.2	85.0 | 90.0	21% | 24%	12% | 9%	15.0%	08/29/2025 10:05:38 AM

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	19 lbs	17 lbs	15 lbs	22 lbs	17 lbs	18 lbs	**18.0 lbs**
Right	19 lbs	21 lbs	20 lbs	21 lbs	21 lbs	25 lbs	**21.2 lbs**



Bilateral Difference: 3.2 lbs | **CV:** L=12% R=9% | **Bilateral Deficiency:** 15.0%

*Rating of Perceived Effort = Light

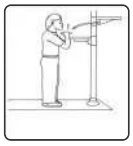
Comments: *Hand Strength-Standard performed with poor effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.*

References:

Grip and Pinch Strength: Normative Data for Adults, V. Mathiowetz et al., Arch Pys Med Rehab, Vol. 66, pp. 69 (Feb 1985).
The Seriously Uninjured Hand-Weakness of Grip, H. Stokes, Journal of Occupational Medicine, pp. 683-684 (Sep 1983).
Grip Strength in a Disabled Sample: Reliability and Normative Standards, L. Matheson, et al., Industrial Rehabilitation Quarterly, Vol. 1, no. 3, Fall 1988.
Detection of Submaximal effort by use of the rapid exchange grip, Hildreth et al., Journal of Hand Surgery, pp. 742 (Jul 1989).

Hand Strength-Rapid-Exchange

Sample Illustration:


Static High


Static Low


Static Mid


Static Pull


Static Push

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 (lb)	Norm (lb)	% age Norm	% age CV	Difference	Test Date
	Left | Right	L | R	L | R	L | R	Prev | Total	
Hand Strength-Rapid-Exchange	17.7 | 20.3	85.0 | 90.0	21% | 23%	11% | 16%	13.0%	08/29/2025 10:05:38 AM

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	15 lbs	20 lbs	18 lbs	19 lbs	19 lbs	15 lbs	**17.7 lbs**
Right	17 lbs	19 lbs	18 lbs	27 lbs	22 lbs	19 lbs	**20.3 lbs**

Left Side

Avg: 17.7 lbs

Right Side

Avg: 20.3 lbs

Bilateral Difference: 2.7 lbs | **CV:** L=11% R=16% | **Bilateral Deficiency:** 13.0%

*Rating of Perceived Effort = Light

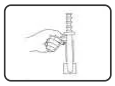
Comments: *Hand Strength-Rapid-Exchange performed with poor effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.*

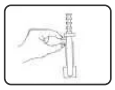
References:

Grip and Pinch Strength: Normative Data for Adults, V. Mathiowetz et al., Arch Pys Med Rehab, Vol. 66, pp. 69 (Feb 1985).
The Seriously Uninjured Hand-Weakness of Grip, H. Stokes, Journal of Occupational Medicine, pp. 683-684 (Sep 1983).
Grip Strength in a Disabled Sample: Reliability and Normative Standards, L. Matheson, et al., Industrial Rehabilitation Quarterly, Vol. 1, no. 3, Fall 1988.
Detection of Submaximal effort by use of the rapid exchange grip, Hildreth et al., Journal of Hand Surgery, pp. 742 (Jul 1989).

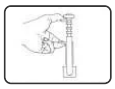
Pinch Strength-Key

Sample Illustration:


Key Pinch


Tip Pinch


Palmer Pinch

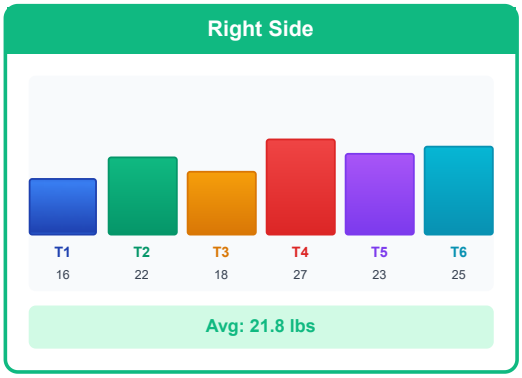

Pinch Grasp

The client was tested in our facility using a hand grip evaluation device. The test results were compared to normative data when available. It is expected that the dominant hand will display 10% greater values than the non-dominant hand with the exception of left handed individuals where the hand strength is equal. Strength measurements are in pounds (lbs).

Results:

Demonstrated Activity	Avg. Force (lb)	Norm (lb)	% age Norm	% age CV	Difference	Test Date
	Left | Right	L | R	L | R	L | R	Prev | Total	
Pinch Strength-Key	19.7 | 21.8	110.5 | 120.8	18% | 18%	13% | 17%	10.0%	08/29/2025 10:05:38 AM

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	15 lbs	22 lbs	21 lbs	18 lbs	20 lbs	22 lbs	**19.7 lbs**
Right	16 lbs	22 lbs	18 lbs	27 lbs	23 lbs	25 lbs	**21.8 lbs**



Bilateral Difference: 2.2 lbs | **CV:** L=13% R=17% | **Bilateral Deficiency:** 10.0%

*Rating of Perceived Effort = Somewhat hard

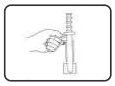
Comments: *Pinch Strength-Key performed with fair to average effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.*

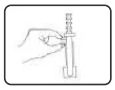
References:

Grip and Pinch Strength: Normative Data for Adults, V. Mathiowetz et al., Arch Pys Med Rehab, Vol. 66, pp. 69 (Feb 1985).
The Seriously Uninjured Hand-Weakness of Grip, H. Stokes, Journal of Occupational Medicine, pp. 683-684 (Sep 1983).
Grip Strength in a Disabled Sample: Reliability and Normative Standards, L. Matheson, et al., Industrial Rehabilitation Quarterly, Vol. 1, no. 3, Fall 1988.
Detection of Submaximal effort by use of the rapid exchange grip, Hildreth et al., Journal of Hand Surgery, pp. 742 (Jul 1989).

Pinch Strength-Tip

Sample Illustration:


Key Pinch


Tip Pinch


Palmer Pinch


Pinch Grasp

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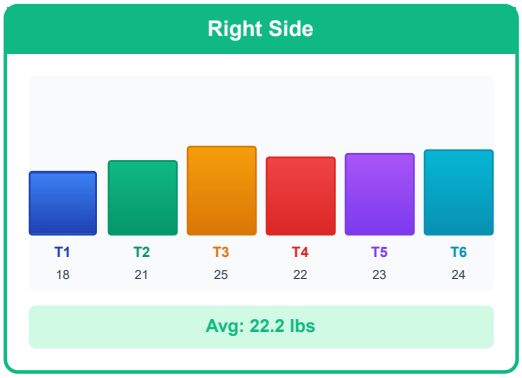
Results:

Demonstrated Activity	Avg. Force (lb)	Norm (lb)	% age Norm	% age CV	Difference	Test Date
	Left | Right	L | R	L | R	L | R	Prev | Total	
Pinch Strength-Tip	19.2 | 22.2	110.5 | 120.8	17% | 18%	9% | 10%	14.0%	08/29/2025 10:05:38 AM

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	20 lbs	18 lbs	20 lbs	17 lbs	22 lbs	18 lbs	**19.2 lbs**
Right	18 lbs	21 lbs	25 lbs	22 lbs	23 lbs	24 lbs	**22.2 lbs**



Bilateral Difference: 3.0 lbs | **CV:** L=9% R=10% | **Bilateral Deficiency:** 14.0%

*Rating of Perceived Effort = Somewhat hard

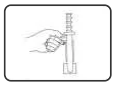
Comments: *Pinch Strength-Tip performed with fair to average effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.*

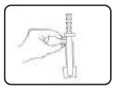
References:

Grip and Pinch Strength: Normative Data for Adults, V. Mathiowetz et al., Arch Pys Med Rehab, Vol. 66, pp. 69 (Feb 1985).
The Seriously Uninjured Hand-Weakness of Grip, H. Stokes, Journal of Occupational Medicine, pp. 683-684 (Sep 1983).
Grip Strength in a Disabled Sample: Reliability and Normative Standards, L. Matheson, et al., Industrial Rehabilitation Quarterly, Vol. 1, no. 3, Fall 1988.
Detection of Submaximal effort by use of the rapid exchange grip, Hildreth et al., Journal of Hand Surgery, pp. 742 (Jul 1989).

Pinch Strength-Palmar

Sample Illustration:


Key Pinch


Tip Pinch


Palmer Pinch

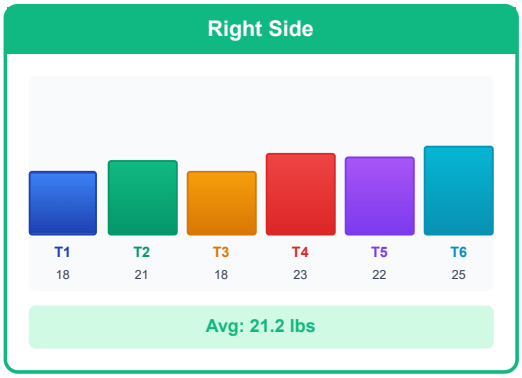

Pinch Grasp

The client was tested in our facility using a hand grip evaluation device. The test results were compared to normative data when available. It is expected that the dominant hand will display 10% greater values than the non-dominant hand with the exception of left handed individuals where the hand strength is equal. Strength measurements are in pounds (lbs).

Results:

Demonstrated Activity	Avg. Force (lb)	Norm (lb)	% age Norm	% age CV	Difference	Test Date
	Left | Right	L | R	L | R	L | R	Prev | Total	
Pinch Strength-Palmar	18.2 | 21.2	110.5 | 120.8	16% | 18%	13% | 12%	14.0%	08/29/2025 10:05:38 AM

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	14 lbs	22 lbs	19 lbs	19 lbs	17 lbs	18 lbs	**18.2 lbs**
Right	18 lbs	21 lbs	18 lbs	23 lbs	22 lbs	25 lbs	**21.2 lbs**



Bilateral Difference: 3.0 lbs | **CV:** L=13% R=12% | **Bilateral Deficiency:** 14.0%

*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.*

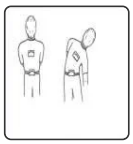
References:

Grip and Pinch Strength: Normative Data for Adults, V. Mathiowetz et al., Arch Pys Med Rehab, Vol. 66, pp. 69 (Feb 1985).
The Seriously Uninjured Hand-Weakness of Grip, H. Stokes, Journal of Occupational Medicine, pp. 683-684 (Sep 1983).
Grip Strength in a Disabled Sample: Reliability and Normative Standards, L. Matheson, et al., Industrial Rehabilitation Quarterly, Vol. 1, no. 3, Fall 1988.
Detection of Submaximal effort by use of the rapid exchange grip, Hildreth et al., Journal of Hand Surgery, pp. 742 (Jul 1989).

Cervical Flexion-Extension

Sample Illustration:

Range of Motion



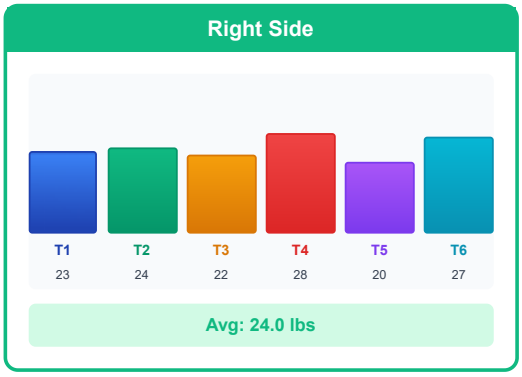
Lateral Flexion

The client was tested in our facility using range of motion inclinometers. The test results were compared to normative data when available.

Results:

Area Evaluated:	Data:	Valid?	Norm:	% of Norm:	Test Date
Cervical Flexion-Extension	24 deg	Pass	60 deg	40%	08/29/2025

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	19 lbs	22 lbs	20 lbs	18 lbs	19 lbs	19 lbs	**19.5 lbs**
Right	23 lbs	24 lbs	22 lbs	28 lbs	20 lbs	27 lbs	**24.0 lbs**



Bilateral Difference: 4.5 lbs | **CV:** L=6% R=12% | **Bilateral Deficiency:** 19.0%

*Rating of Perceived Effort = Light

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

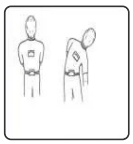
References:

Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 112-135, 4th ed..
Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 81-102, 3rd ed..

Cervical Lateral-Flexion

Sample Illustration:

Range of Motion



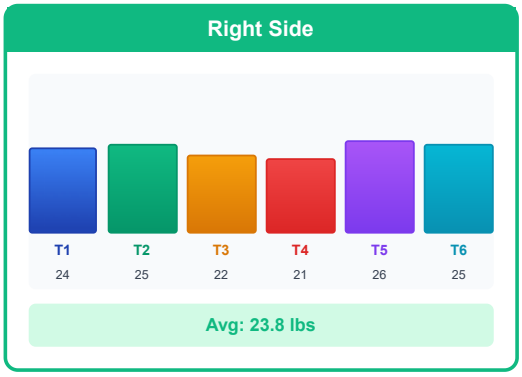
Lateral Flexion

The client was tested in our facility using range of motion inclinometers. The test results were compared to normative data when available.

Results:

Area Evaluated:	Data:	Valid?	Norm:	% of Norm:	Test Date
Cervical Lateral-Flexion	24 deg	Pass	60 deg	40%	08/29/2025

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	19 lbs	18 lbs	17 lbs	18 lbs	17 lbs	16 lbs	**17.5 lbs**
Right	24 lbs	25 lbs	22 lbs	21 lbs	26 lbs	25 lbs	**23.8 lbs**



Bilateral Difference: 6.3 lbs | **CV:** L=5% R=7% | **Bilateral Deficiency:** 27.0%

*Rating of Perceived Effort = Hard (heavy)

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

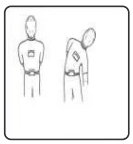
References:

Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 112-135, 4th ed..
Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 81-102, 3rd ed..

Hip Muscle-Flexion

Sample Illustration:

Range of Motion



Lateral Flexion

The client was tested in our facility using range of motion inclinometers. The test results were compared to normative data when available.

Results:

Area Evaluated:	Data:	Valid?	Norm:	% of Norm:	Test Date
Hip Muscle-Flexion	22 deg	Pass	60 deg	36%	08/29/2025

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	13 lbs	21 lbs	14 lbs	16 lbs	22 lbs	20 lbs	**17.7 lbs**
Right	24 lbs	22 lbs	22 lbs	20 lbs	18 lbs	25 lbs	**21.8 lbs**

Left Side

Avg: 17.7 lbs

Right Side

Avg: 21.8 lbs

Bilateral Difference: 4.2 lbs | **CV:** L=20% R=11% | **Bilateral Deficiency:** 19.0%

*Rating of Perceived Effort = Somewhat hard

Comments: *Hip Muscle-Flexion performed with fair to average effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.*

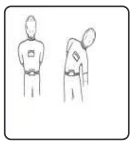
References:

Hand-held Dynamometry for Measuring Muscle Strength, A.W. Andrews, Journal of Human Muscle Performance, pp. 35 (Jun 1991).

Hip Muscle-Extension

Sample Illustration:

Range of Motion



Lateral Flexion

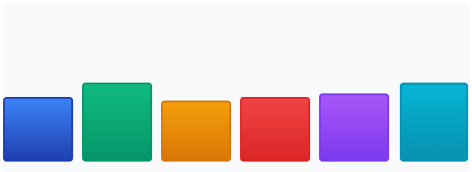
The client was tested in our facility using range of motion inclinometers. The test results were compared to normative data when available.

Results:

Area Evaluated:	Data:	Valid?	Norm:	% of Norm:	Test Date
Hip Muscle-Extension	20 deg	Fail	25 deg	79%	08/29/2025

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	18 lbs	22 lbs	17 lbs	18 lbs	19 lbs	22 lbs	**19.3 lbs**
Right	20 lbs	18 lbs	18 lbs	21 lbs	19 lbs	22 lbs	**19.7 lbs**

Left Side



Avg: 19.3 lbs

Right Side

Avg: 19.7 lbs

Bilateral Difference: 0.3 lbs | **CV:** L=10% R=8% | **Bilateral Deficiency:** 2.0%

*Rating of Perceived Effort = Very hard

Reason For Incomplete Test:
Limited by pain/discomfort

Endpoint Condition:
Psychophysical

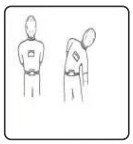
Comments: *Hip Muscle-Extension could not be fully demonstrated due to pain/discomfort. Client attempted but unable to complete all trials at maximum effort. Limited by symptoms.*

References:
Hand-held Dynamometry for Measuring Muscle Strength, A.W. Andrews, Journal of Human Muscle Performance, pp. 35 (Jun 1991).

Shoulder Muscle-Flexion

Sample Illustration:

Range of Motion



Lateral Flexion

The client was tested in our facility using range of motion inclinometers. The test results were compared to normative data when available.

Results:

Area Evaluated:	Data:	Valid?	Norm:	% of Norm:	Test Date
Shoulder Muscle-Flexion	19 deg	Pass	60 deg	31%	08/29/2025

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	15 lbs	17 lbs	14 lbs	22 lbs	17 lbs	18 lbs	**17.2 lbs**
Right	16 lbs	18 lbs	18 lbs	21 lbs	19 lbs	20 lbs	**18.7 lbs**

Left Side

Avg: 17.2 lbs

Right Side

Avg: 18.7 lbs

Bilateral Difference: 1.5 lbs | **CV:** L=15% R=9% | **Bilateral Deficiency:** 8.0%

*Rating of Perceived Effort = Somewhat hard

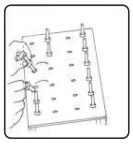
Comments: *Shoulder Muscle-Flexion performed with fair to average effort. Client demonstrated good understanding of test requirements and maintained consistent performance throughout all trials.*

References:

Hand-held Dynamometry for Measuring Muscle Strength, A.W. Andrews, Journal of Human Muscle Performance, pp. 35 (Jun 1991).

Shoulder Muscle-Abduction

Sample Illustration:


Balance


Bi-Manual Handling


Carry


Walk

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 (lb)	Norm (lb)	% age Norm	% age CV	Difference	Test Date
	Left | Right	L | R	L | R	L | R	Prev | Total	
Shoulder Muscle-Abduction	17.7 | 22.7	85.0 | 90.0	21% | 25%	16% | 8%	22.0%	08/29/2025 10:05:38 AM

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	17 lbs	15 lbs	14 lbs	18 lbs	20 lbs	22 lbs	**17.7 lbs**
Right	24 lbs	25 lbs	24 lbs	22 lbs	20 lbs	21 lbs	**22.7 lbs**

Left Side

Avg: 17.7 lbs

Right Side

Avg: 22.7 lbs

Bilateral Difference: 5.0 lbs | **CV:** L=16% R=8% | **Bilateral Deficiency:** 22.0%

*Rating of Perceived Effort = Very hard

Reason For Incomplete Test:
Limited by pain/discomfort

Endpoint Condition:
Psychophysical

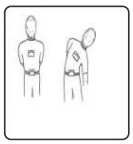
Comments: *Shoulder Muscle-Abduction could not be fully demonstrated due to pain/discomfort. Client attempted but unable to complete all trials at maximum effort. Limited by symptoms.*

References:
Hand-held Dynamometry for Measuring Muscle Strength, A.W. Andrews, Journal of Human Muscle Performance, pp. 35 (Jun 1991).

Cervical Spine-Flexion-Extension

Sample Illustration:

Range of Motion



Lateral Flexion

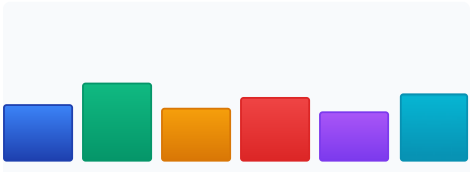
The client was tested in our facility using range of motion inclinometers. The test results were compared to normative data when available.

Results:

Area Evaluated:	Data:	Valid?	Norm:	% of Norm:	Test Date
Cervical Spine-Flexion-Extension	21 deg	Pass	60 deg	34%	08/29/2025

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	16 lbs	22 lbs	15 lbs	18 lbs	14 lbs	19 lbs	**17.3 lbs**
Right	17 lbs	20 lbs	22 lbs	20 lbs	19 lbs	26 lbs	**20.7 lbs**

Left Side



Avg: 17.3 lbs

Right Side

Avg: 20.7 lbs

Bilateral Difference: 3.3 lbs | **CV:** L=16% R=14% | **Bilateral Deficiency:** 16.0%

*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:

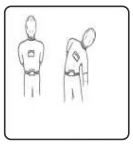
Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 112-135, 4th ed..

Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 81-102, 3rd ed..

Lumbar Spine-Flexion-Extension

Sample Illustration:

Range of Motion



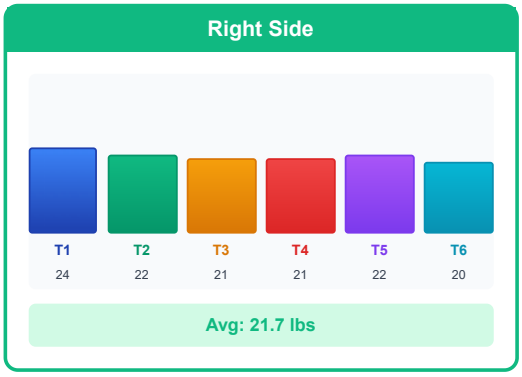
Lateral Flexion

The client was tested in our facility using range of motion inclinometers. The test results were compared to normative data when available.

Results:

Area Evaluated:	Data:	Valid?	Norm:	% of Norm:	Test Date
Lumbar Spine-Flexion-Extension	22 deg	Pass	60 deg	36%	08/29/2025

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	13 lbs	16 lbs	17 lbs	21 lbs	22 lbs	22 lbs	**18.5 lbs**
Right	24 lbs	22 lbs	21 lbs	21 lbs	22 lbs	20 lbs	**21.7 lbs**



Bilateral Difference: 3.2 lbs | **CV:** L=18% R=6% | **Bilateral Deficiency:** 15.0%

*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:

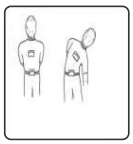
Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 112-135, 4th ed..

Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 81-102, 3rd ed..

Shoulder Rom-Flexion-Extension

Sample Illustration:

Range of Motion



Lateral Flexion

The client was tested in our facility using range of motion inclinometers. The test results were compared to normative data when available.

Results:

Area Evaluated:	Data:	Valid?	Norm:	% of Norm:	Test Date
Shoulder Rom-Flexion-Extension	23 deg	Pass	60 deg	38%	08/29/2025

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	14 lbs	20 lbs	14 lbs	17 lbs	18 lbs	22 lbs	**17.5 lbs**
Right	24 lbs	18 lbs	20 lbs	26 lbs	22 lbs	26 lbs	**22.7 lbs**

Left Side

Avg: 17.5 lbs

Right Side

Avg: 22.7 lbs

Bilateral Difference: 5.2 lbs | **CV:** L=17% R=13% | **Bilateral Deficiency:** 23.0%

*Rating of Perceived Effort = Hard (heavy)

Comments: *Shoulder Rom-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:

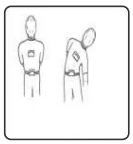
Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 112-135, 4th ed..

Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 81-102, 3rd ed..

Hip Rom-Flexion-Extension

Sample Illustration:

Range of Motion



Lateral Flexion

The client was tested in our facility using range of motion inclinometers. The test results were compared to normative data when available.

Results:

Area Evaluated:	Data:	Valid?	Norm:	% of Norm:	Test Date
Hip Rom-Flexion-Extension	22 deg	Pass	60 deg	37%	08/29/2025

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	18 lbs	19 lbs	13 lbs	22 lbs	20 lbs	18 lbs	**18.3 lbs**
Right	19 lbs	22 lbs	23 lbs	27 lbs	20 lbs	21 lbs	**22.0 lbs**

Left Side

Avg: 18.3 lbs

Right Side

Avg: 22.0 lbs

Bilateral Difference: 3.7 lbs | **CV:** L=15% R=12% | **Bilateral Deficiency:** 17.0%

*Rating of Perceived Effort = Hard (heavy)

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

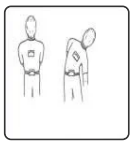
References:

Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 112-135, 4th ed..
Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 81-102, 3rd ed..

Thumb Ip-Flexion-Extension

Sample Illustration:

Range of Motion



Lateral Flexion

The client was tested in our facility using range of motion inclinometers. The test results were compared to normative data when available.

Results:

Area Evaluated:	Data:	Valid?	Norm:	% of Norm:	Test Date
Thumb Ip-Flexion-Extension	22 deg	Fail	60 deg	37%	08/29/2025

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	17 lbs	15 lbs	17 lbs	18 lbs	16 lbs	19 lbs	**17.0 lbs**
Right	21 lbs	26 lbs	18 lbs	27 lbs	19 lbs	21 lbs	**22.0 lbs**

Left Side

Avg: 17.0 lbs

Right Side

Avg: 22.0 lbs

Bilateral Difference: 5.0 lbs | **CV:** L=8% R=15% | **Bilateral Deficiency:** 23.0%

*Rating of Perceived Effort = Very hard

Reason For Incomplete Test:
Limited by pain/discomfort

Endpoint Condition:
Psychophysical

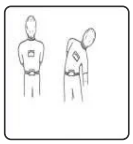
Comments: *Thumb Ip-Flexion-Extension could not be fully demonstrated due to pain/discomfort. Client attempted but unable to complete all trials at maximum effort. Limited by symptoms.*

References:
Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 90-92, 4th ed..
Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 20-38, 101, 3rd ed..

Index Dip-Flexion-Extension

Sample Illustration:

Range of Motion



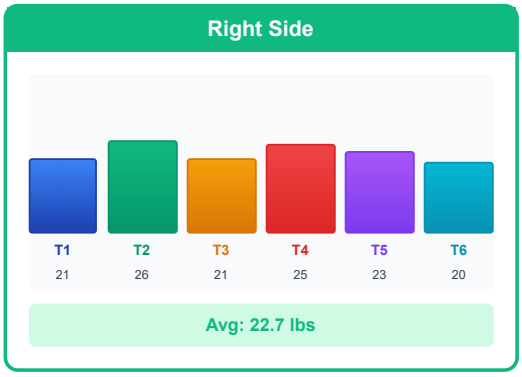
Lateral Flexion

The client was tested in our facility using range of motion inclinometers. The test results were compared to normative data when available.

Results:

Area Evaluated:	Data:	Valid?	Norm:	% of Norm:	Test Date
Index Dip-Flexion-Extension	23 deg	Pass	60 deg	38%	08/29/2025

Side	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Average
Left	14 lbs	14 lbs	14 lbs	18 lbs	15 lbs	15 lbs	**15.0 lbs**
Right	21 lbs	26 lbs	21 lbs	25 lbs	23 lbs	20 lbs	**22.7 lbs**



Bilateral Difference: 7.7 lbs | **CV:** L=9% R=10% | **Bilateral Deficiency:** 34.0%

*Rating of Perceived Effort = Light

Comments: *Index Dip-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:

Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 90-92, 4th ed..
Guides to the Evaluation of Permanent Impairment, American Medical Association, pp. 20-38, 101, 3rd ed..

Mcaft Step-Test

Sample Illustration:

mCAFT Step Test

mCAFT is designed to give information about the aerobic fitness of a person, while using minimal equipment. The subject works by lifting its own body weight up and down double steps (40.6 cm in height total) while listening to set cadences from a compact disc. The end-stage of the age and gender specific stepping rate requires 65% of the age-predicted maximum heart rate. The heart rate increases approximately in a linear fashion from 50% to 100% of maximal oxygen intake. The heart rate does not decrease significantly during the first fifteen seconds of recovery (O_2 in). Thus, one can predict an aerobic fitness using the heart rate right after exercise of a known sub-maximal rate of working.

Results:

mCAFT (Modified Canadian Aerobic Fitness Test), is designed to give information about the aerobic fitness of a person, while using minimal equipment. The subject works by lifting its own body weight up and down double steps (40.6 cm in height total) while listening to set cadences from a compact disc. The end-stage of the age and gender specific stepping rate requires 65% of the age-predicted maximum heart rate. The heart rate increases approximately in a linear fashion from 50% to 100% of maximal oxygen intake. The heart rate does not decrease significantly during the first fifteen seconds of recovery (O_2 in). Thus, one can predict an aerobic fitness using the heart rate right after exercise of a known sub-maximal rate of working.

Starting stepping stage by gender

Age	Males	Females
15-19	4	3
20-29	4	3
30-39	3	2
40-49	3	2
50-59	2	2
60-69	2	1

Oxygen cost in ml/kg/min

Stage	Stepping cadence (Females)	Stepping cadence (Males)	oxygen cost (Females)	Oxygen cost (Males)
1	24	24	15.3	15.9
2	27	27	18.0	18.6
3	30	30	20.7	21.3
4	33	33	23.4	24.0
5	36	36	26.1	26.7

mCAFT (Modified Canadian Aerobic Fitness Test) EQUATIONS TO PREDICT VO_2MAX

VO_2 max ($ml \cdot kg^{-1} \cdot min^{-1}$) = 17.2 + (1.29 × O_2 cost of the last completed stage) - (0.09 × mass in kg) - (0.18 × age in years)

VO_2 max ($ml \cdot kg^{-1} \cdot min^{-1}$) = 17.2 + (1.29 × _____) - (0.09 × _____ kg) - (0.18 × _____)

Note: O_2 cost is provided in Table 2 on the back of this worksheet.

Predicted VO_2 max: 37 ml/kg/min ($ml \cdot kg^{-1} \cdot min^{-1}$) **HBR:** 120 bpm

CLIENT IMAGES:

img33.jpg

*Rating of Perceived Effort = Very hard

Test Images:

Note: The above images provide visual documentation of the Mcaft Step-Test test procedures and results.

Comments: *Cardio test completed: Mcaft Step-Test. Specialized cardio data collected.*

References:

· Weller et al. Prediction of maximal oxygen uptake from a modified Canadian aerobic fitness test. Can. J. Appl. Physiol. 18(2) 175-188, 1993
· Weller et al. A study to validate the Canadian aerobic fitness test. Can. J. Appl. Physiol. 20(2) 211-221, 1995

Bruce Treadmill-Test

Sample Illustration:

Bruce Protocol

The Bruce Treadmill Test (Bruce Protocol) is commonly used to help identify a person's level of aerobic endurance by providing an all-out maximal oxygen uptake or VO_2 max, which measures the capacity to perform sustained exercise and is linked to aerobic endurance.

Results:

Protocol Stages

The Bruce protocol involves getting on a treadmill and increasing speed and incline every three minutes (in stages). The test stops when you've hit 85% of your maximum heart rate, your heart rate exceeds 115 beats per minute for two stages, or it is deemed that the test should no longer continue. If your heart rate changes more than six beats per minute between the second and third minute of any given stage, you are kept at the same speed & incline for an additional minute. (As your HR has not achieved a steady state).

Measuring VO_2 Max:

Maximal oxygen uptake (VO_2 max) refers to the maximum amount of oxygen an individual can use during intense or maximal exercise. It is measured as milliliters of oxygen used in one minute per kilogram of body weight (ml/kg/min).

The Bruce treadmill test is an indirect maximal oxygen uptake test. It is indirect because it estimates VO_2 max using a formula and the person's performance on a treadmill as the workload increases.

When the Bruce protocol formula is used, T stands for total time on the treadmill and is measured as a fraction of a minute. If test time of 10 minutes 15 seconds would be written as T=10.25); this formula changes based on gender. The time you spend on the treadmill is your test score and can be used to estimate your VO_2 max value. Blood pressure and ratings of perceived exertion are also often collected during the Bruce protocol test.

Men: $14.8 - (1.379 \times T) + (0.451 \times T^2) - (0.012 \times T^3) = VO_2$ max
Women: $4.38 \times T - 3.9 = VO_2$ max

Bruce Treadmill Test Stages, Speeds, and Inclines:

Stage	Treadmill Speed	Treadmill Incline
1	1.7 mph	10% grade
2	2.5 mph	12% grade
3	3.4 mph	14% grade
4	4.2 mph	16% grade
5	5.0 mph	18% grade
6	5.5 mph	20% grade
7	6.0 mph	22% grade

CLASSIFICATION: Good **VO_2 MAX:** 36 ml/kg/min

VO_2 Max Norms for Men as Measured in ml/kg/min

Age	Excellent	Good	Above Average	Average	Below Average	Poor	Very Poor
20-29	>56	50-56	46-49	42-45	37-41	31-36	<31
30-39	>54	48-54	44-47	40-43	35-39	29-34	<29
40-49	>52	46-52	42-45	38-41	33-37	27-32	<27
50-59	>50	44-50	40-43	36-39	31-35	25-30	<25
60+	>48	42-48	38-41	34-37	29-33	23-28	<23

VO_2 Max Norms for Women as Measured in ml/kg/min

Age	Excellent	Good	Above Average	Average	Below Average	Poor	Very Poor
20-29	>49	43-49	39-42	35-38	31-34	25-30	<25
30-39	>47	41-47	37-40	33-36	29-32	23-28	<23
40-49	>45	39-45	35-38	31-34	27-30	21-26	<21
50-59	>43	37-43	33-36	29-32	25-28	19-24	<19
60+	>41	35-41	31-34	27-30	23-26	17-22	<17

*Rating of Perceived Effort = Very hard

Test Images:

Note: The above images provide visual documentation of the Bruce Treadmill-Test test procedures and results.

Comments: *Cardio test completed: Bruce Treadmill-Test. Specialized cardio data collected.*

References:

· Bires AM, Lawson D, Wasser TE, Raber-Baer D. Comparison of Bruce treadmill exercise test protocols: is ramped Bruce equal or superior to standard bruce in producing clinically valid studies for patients presenting for evaluation of cardiac ischemia or arrhythmia with body mass index equal to or greater than 30? J Nucl Med Technol. 2013 Dec;41(4):274-8

· Poehling CP, Llewellyn TL. The Effects of Submaximal and Maximal Exercise on Heart Rate Variability. Int J Exerc Sci. 2019;12(2):9-14.

Kasch Step-Test

Sample Illustration:

KASCH Step Test

The Kasch step test, officially the Kasch Pulse Recovery Test (KPR Test), is a 3-minute step test used to assess cardiorespiratory fitness. The test involves stepping onto a 0.305-meter (12-inch) step at a rate of 24 steps per minute for three minutes, followed by immediately sitting and measuring heart rate recovery for one minute to determine fitness levels.

Results:

The KASCH step test, officially the Kasch Pulse Recovery Test (KPR Test), is a 3-minute step test used to assess cardiorespiratory fitness. The test involves stepping onto a 0.305-meter (12-inch) step at a rate of 24 steps per minute for three minutes, followed by immediately sitting and measuring heart rate recovery for one minute to determine fitness levels.

How the Kasch Pulse Recovery Test (KPR Test) Works

1. **Preparation:** Participants are fitted with a heart rate monitor and rest until a steady-state heart rate is achieved.
2. **The Step:** The participant steps up and down on a 12-inch step for a total of three minutes, performing a full step (up, up, down, down) at a rate of 24 steps per minute. A metronome is used to maintain the correct cadence.
3. **Heart Rate Recovery:** Immediately after the three minutes of stepping, the participant sits down in a chair.
4. **Measurement:** Heart rate is monitored and recorded for one minute following the cessation of stepping. A faster heart rate recovery indicates better cardiorespiratory fitness.

The Kasch Step Test does not directly provide classification types itself; rather, classification is based on a participant's heart rate recovery after a standardized step exercise, which is then compared to age-based reference standards to categorize their cardiorespiratory fitness.

CLASSIFICATION: Average **AEROBIC FITNESS SCORE:** 77

Ratings for Women, Based on Age

	18-25	26-35	36-45	46-55	56-65	65+
Excellent	52-81	58-80	63-91	60-92	70-92	73-86
Good	85-93	85-92	89-96	95-101	97-103	96-101
Above Average	96-102	96-101	100-104	106-111	104-111	103-115
Average	104-110	104-110	107-112	113-118	113-118	116-121
Below Average	113-120	113-119	115-120	120-124	119-127	123-126
Poor	122-131	122-129	124-132	126-132	129-135	128-133
Very Poor	135+	132+	137+	137+	141+	139+

Ratings for Men, Based on Age

	18-25	26-35	36-45	46-55	56-65	65+
Excellent	50-76	51-76	49-76	56-82	60-77	59-81
Good	79-89	79-85	80-88	87-94	86-94	87-92
Above Average	88-93	88-94	92-96	97-100	97-100	94-102
Average	95-100	96-102	98-105	103-111	103-109	104-113
Below Average	102-107	104-110	108-113	113-119	111-119	116-124
Poor	111-119	114-121	116-124	121-126	122-128	126-132
Very Poor	124+	126+	128+	131+	131+	137+

CLIENT IMAGES:

img32.jpg

*Rating of Perceived Effort = Very hard

Test Images:

Note: The above images provide visual documentation of the Kasch Step-Test test procedures and results.

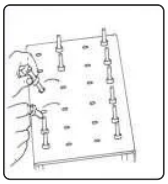
Comments: *Cardio test completed: Kasch Step-Test. Specialized cardio data collected.*

References:

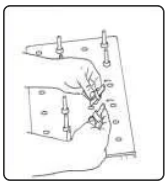
Validation of a bench stepping test for cardiorespiratory fitness classification of emergency service personnel J A Davis, J H Wilmore, PMID: 501456

Occupational Tasks Methods Time Measurement Analysis

Sample Illustration:



Balance



Bi-Manual Handling

Carry

Walk

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

Fingering - 29/08/2025 01:33:59								
Trial:	**Side:**	**Weight/Plane:**	**Distance/Posture:**	**Reps:**	**Time (sec)**	**%IS**	**CV%**	**Time Set Completed**
1	Both	Immediate	Standing	10	17.0	77.0	0	21.9
2	Both	Immediate	Standing	10	16.6	76.8	0	34.7
3	Both	Immediate	Standing	10	33.5	83.6	0	44.2
Avg.				10	22.37	79.1	3	22.4

Heart Rate: Pre: 84 bpm Post: 116 bpm

Test Images:

img21.jpg

Note: The above images provide visual documentation of the Fingering test procedures and results.

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

Handling - 29/08/2025 01:29:46								
Trial:	**Side:**	**Weight/Plane:**	**Distance/Posture:**	**Reps:**	**Time (sec)**	**%IS**	**CV%**	**Time Set Completed**
1	Both	Immediate	Standing	10	16.1	93.0	0	40.5
2	Both	Immediate	Standing	10	20.9	87.2	0	21.8
3	Both	Immediate	Standing	10	32.6	94.5	0	27.8
Avg.				10	23.20	91.6	3	23.2

Heart Rate: Pre: 73 bpm Post: 94 bpm

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

Reach Immediate - 29/08/2025 01:29:46								
Trial:	**Side:**	**Weight/Plane:**	**Distance/Posture:**	**Reps:**	**Time (sec)**	**%IS**	**CV%**	**Time Set Completed**
1	Both	Front	Standing	6	29.3	89.0	0	35.7
2	Both	Front	Standing	6	20.0	83.8	0	30.0
3	Both	Front	Standing	6	25.5	71.0	0	37.5
Avg.				6	24.93	81.3	3	24.9

Heart Rate: Pre: 81 bpm Post: 118 bpm

Comments: *Reach Immediate performed with good 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).

Birdsong, J.H. and Chyatte, S.B. (1970) "Further medical applications of methods-time measurement". Journal of Methods-Time Measurement, 15, 19-27.

Brickey, "MTM in a Sheltered Workshop". Journal of Methods-Time Measurement, 8, (3) 2-7.

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.

Foulke, J.A. "Estimating Individual Operator Performance". Journal of Methods-Time Measurement, 15, (1) 18-23.

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% of the workday**	**FREQUENT 34-66% of the workday**	**CONSTANT 67-100% of the workday**
Sedentary	1 - 10 lbs.	Negligible	Negligible
Light	11 - 20 lbs.	1 - 10 lbs.	Negligible
Medium	21 - 50 lbs.	11 - 25 lbs.	1 - 10 lbs.
Heavy	51 - 100 lbs.	26 - 50 lbs.	11 - 20 lbs.
Very Heavy	Over 100 lbs.	Over 50 lbs.	Over 20 lbs.

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

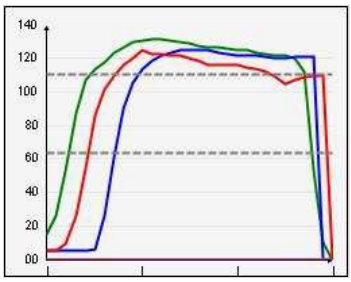
Exerting 50 to 100 lbs of force occasionally, and/or 25 to 50 lbs of force frequently, and/or 10 to 20 lbs of force constantly to move objects. Physical demand requirements are in excess of those for medium work.

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

Appendix Two: Digital Library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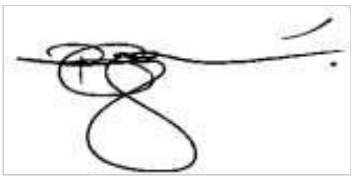

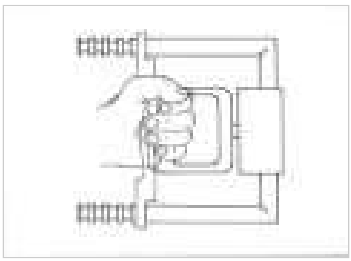

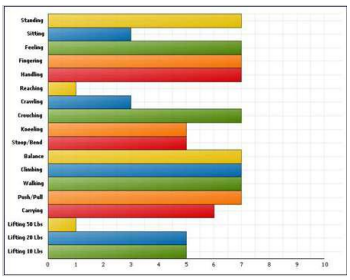
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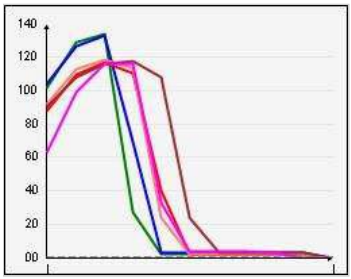
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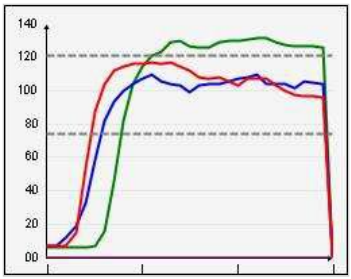
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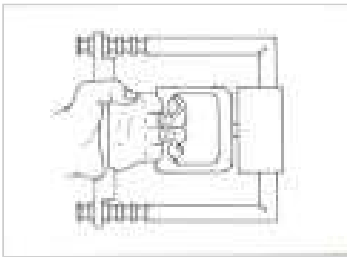

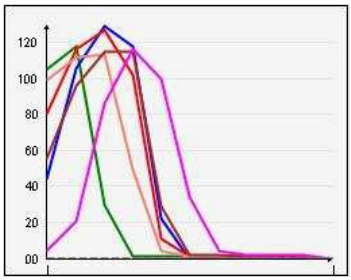
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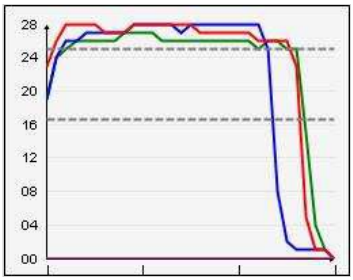
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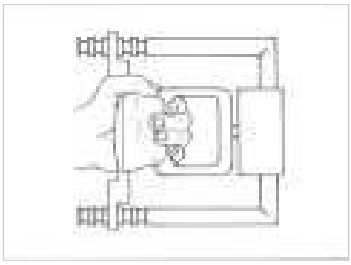

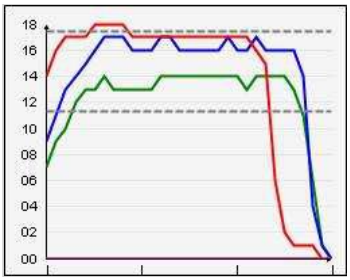
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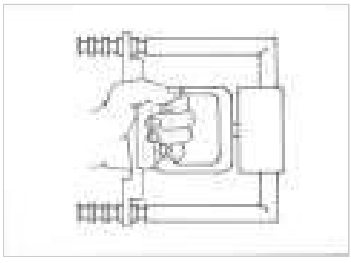

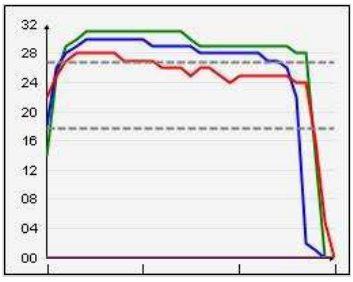
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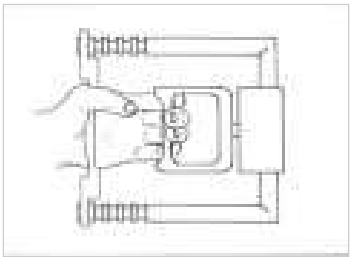

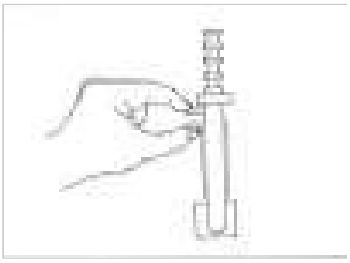

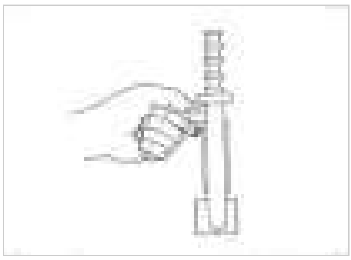

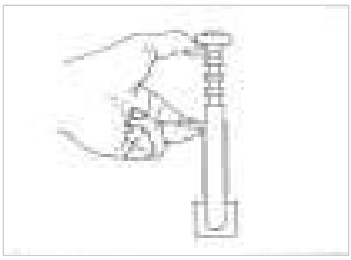

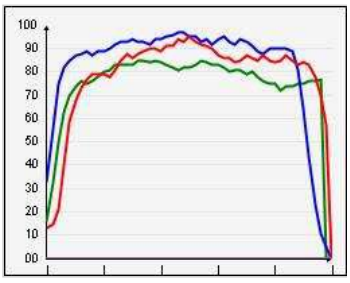
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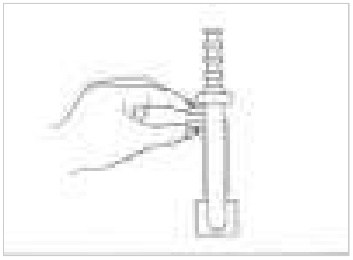

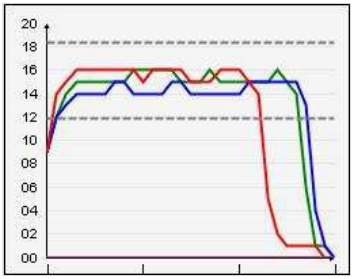
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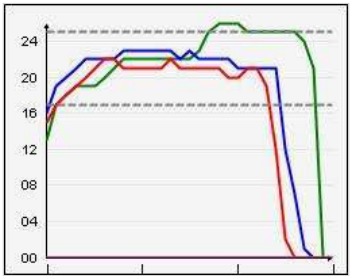
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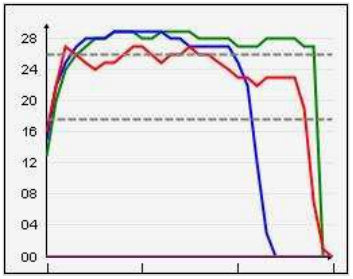
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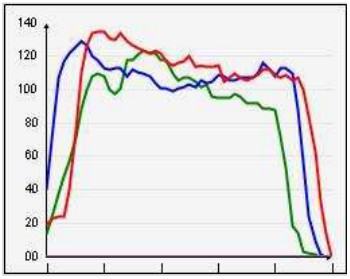
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