



Examinee # 6354

Functional Capacity Evaluation (FCE) / Physical Performance Test (PPT) Summary Report

Examinee: Test Date:

Occupation:

Date of Birth: Date of Injury:

ICD-9 Codes: 1. 2.

3. 4.

Hand Grip Strength Protocol

(Standard Protocol, 5 positions, bell curve strength reliability test):

Right Hand: 5 out of 5 valid, Bell Curve, Yes No

Left Hand: 5 out of 5 valid, Bell Curve, Yes No

Cross Validation Strength Grip Protocol

(Rapid Exchange, 1 position reliability test)

Negative REG, indicating a maximal effort

Static Strength/ Reliability Protocol

Vertical Height	Avg. Amount Demonstrated	Reliable
High Near lift (0-60 in.)	48 lbs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Arm Lift (32-60 in.)	40 lbs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Leg Lift (0-32 in.)	57 lbs.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Vocational Implication

Examinee qualifies for the work category.

to lbs. Max. Occasionally
 to lbs. Max. Frequently

Dynamic Lifting Capacity

Vertical Height	Frequent Lift		Occasional Lift	
	Max. Lifted	Reliable	Max. Lifted	Reliable
Floor to shoulder (60 in)	15 lbs <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	30 lbs <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Knuckle to Shoulder (32-60)	15 lbs <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	30 lbs <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Floor to Knuckle (0-32)	15 lbs <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	30 lbs <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>

Interpretation

Physical Effort:

Cooperation:

Symptom mgmt. Control:

Body Mechanics:

Functional Activities Maximum lbs. Carry Cycles* Reliable

Carrying lbs. (Heaviest) # of cycles Yes No

Cardio Respiratory Protocol VO2 Submaximal Heart Rate

VO2 Fitness Classification: VO2 ml/kg/min Start Stop

Cardio Fitness Test: *1cycle = 50 ft.

Total Evaluation Time

Start Time: Stop Time:

Total Hrs:

Requesting Doctor:

Comments:

Authorizing Physician:

Physicians Name::

SAMPLE SUMMARY REPORT

Functional Capacity Report

Patient: David Patient
SSN: 123-45-6789
DOI: 01/05/09

Dear Dr. Good,

David Patient was seen for an FCE on Tuesday, May 7, 2009.

Mr. Patient's range of motion was within functional to normal range with the following exceptions:
Right knee flexion 117 degrees (78% of normal*).
Right ankle plantarflexion 33 degrees (82% of normal), eversion 16 degrees (80% of normal).
Right shoulder flexion 124 degrees (83% of normal), extension 32 degrees (80% of normal)
Abduction 107 degrees (71% of normal), internal rotation 60 degrees (75% of normal).
True lumbar flexion 50.0 degrees (83% of normal), left straight leg raise 35.7 degrees (45% of normal), right straight leg raise 37% of normal).

On the Bruce Treadmill Test, the patient completed a three minute cycle at speeds of 1.7 mph and 2.5 mph. He voluntarily stopped the test at 34 seconds into the third cycle at 3.4 mph, complaining of right ankle pain. His heart rate increased from 88bpm to 114bpm. His VO2 max corresponds to the 0 (zero) percentile and is a poor ranking.

On the Jamar hand dynamometer, he did show a bell-shaped curve and a particular difference between the 2 hands, which may be indicative of maximal effort. His coefficient of variation was below the acceptable maximum of 15% in 10 out of 10 trials, which indicates consistent effort. He demonstrated a negative rapid exchange grip, which may be an indicator of maximal effort.

On the strength testing and standard NIOSH, COV for static push, static arm lift, static leg lift, and static high near lift were all less than the acceptable maximum of 15%, which may be an indicator of consistent effort.

On dynamic lifting floor-to-waist, floor to shoulder, and waist to shoulder, Mr. Patient completed one cycle each of 10, 20, and 30 lbs. On dynamic carrying he was able to complete one cycle each of 10, 20, 30, and 40 lbs. He complained of right ankle, right shoulder, and lumbar pain during these activities, reporting an increase from a pain level of 4/10 to 5/10. His beginning heart rate was 88bpm, and his maximum heart rate was 102bpm. He did not reach his projected rate of 161bpm.

If I can supply further information or clarify this data, please feel free to contact me.

Sincerely,

Patricia Ellison, OTR

*100% = normal (Reference Information: American Medical Association Guidelines, Guides to the Evaluation of Permanent Impairment, Fifth Edition)

Functional Capacity Evaluation



Client Information

Client Name: **Mr. David Patient**
 Address: 1708 N. Estrella St
 El Paso, TX
 79902
 Injury Date: January 05, 2009
 Dominant Hand: Right Hand
 SSN: 635-24-7654

Employment Information

Occupation: Driver
 Employer: MVT Services LLC DBA
 Address: 350 Picacho Ave
 Las Cruces, N.M.
 85017

Insurance Information

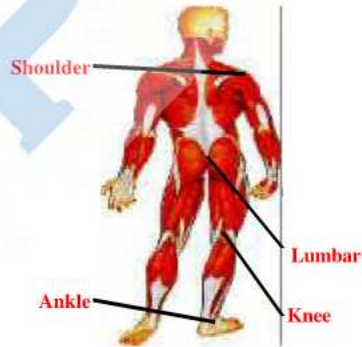
Company: National American State
 Address: P.O. Box 2338
 Chandler, OK
 74835
 (800) 338-2510

Date of Birth: September 29, 1977
 Gender: Male
 Height: 67 inches
 Weight: 200 lbs

Clinic File #: 6354
 Start & Finish Date: May 07, 2009
 Start Time: 12:00pm
 End Time: 5:00pm

Work Status: Currently working

Areas of Complaint



General Location	Specific Location	Plane	Side	Pain Type	Pain Scale
Ankle		Unilateral	Right	Tingling, Poking	4 - Low Moderate
Lumbar		Posterior	Center	Throbbing, Aching,	4 - Low Moderate
Knee		Unilateral	Right	Throbbing, Aching, Stabbing	4 - Low Moderate
Shoulder		Unilateral	Right	Tingling, Poking	4 - Low Moderate

Patricia Ellison, OTR

REHABILITIES PARTNERS LLC

1208 MCRAE EL PASO TX 79925 915.595.4500



SAMPLE

REHABILITIES PARTNERS LLC

1208 MCRAE EL PASO TX 79925 915.595.4500

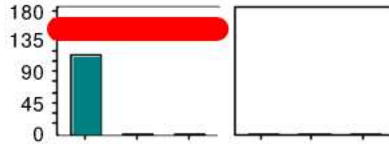


Range of Motion ▶ **Knee - Right**

May 07, 2009

	Flexion	Extension
Normals:	150	0
	117	0

% of Normal	78%	100%
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Reference Information

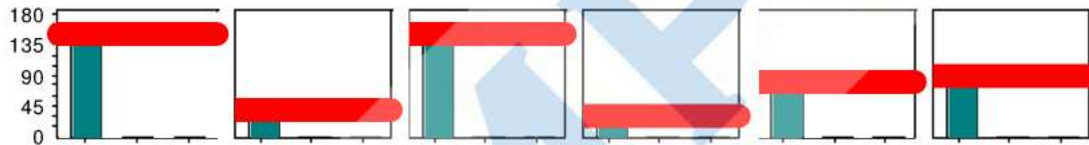
American Medical Association Guides to the Evaluation of Permanent Impairment, Fifth Edition

Range of Motion ▶ **Shoulder - Left**

May 07, 2009

	Flexion	Extension	Abduction	Adduction	Internal Rotation	External Rotation
Normals:	150	40	150	30	80	90
	150	40	150	30	77	90

% of Normal	100%	100%	100%	100%	96%	100%
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Reference Information

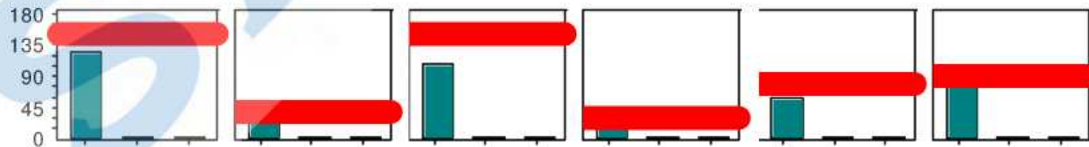
American Medical Association Guides to the Evaluation of Permanent Impairment, Fifth Edition

Range of Motion ▶ **Shoulder - Right**

May 07, 2009

	Flexion	Extension	Abduction	Adduction	Internal Rotation	External Rotation
Normals:	150	40	150	30	80	90
	124	32	107	30	60	88

% of Normal	83%	80%	71%	100%	75%	98%
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Reference Information

American Medical Association Guides to the Evaluation of Permanent Impairment, Fifth Edition

PATRICIA ELLISON

3100 N. LEE TREVINO STE. B EL PASO TX 79936 (915) 590-7246

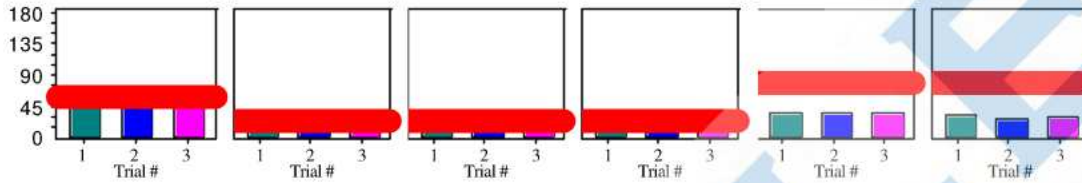


Range of Motion ▶ **Lumbar**

May 07, 2009

	True Lumbar Flexion	True Lumbar Extension	Left Lateral Flexion	Right Lateral Flexion	Left Straight Leg Raise	Right Straight Leg Raise
Normals:	60	25	25	25	80	80
Trial 1:	49	22	25	25	37	32
Trial 2:	51	23	29	25	35	27
Trial 3:	50	23	27	25	35	29

Average	50.0	22.7	27.0	25.0	35.7	29.3
Maximum	51.0	23.0	29.0	25.0	37.0	32.0
AMA Valid	YES	YES	YES	YES	YES	YES
% of Normal	83%	91%	108%	100%	45%	37%



Reference Information

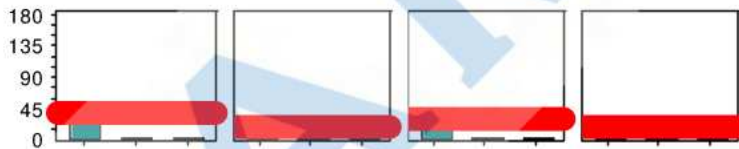
American Medical Association Guides to the Evaluation of Permanent Impairment, Fifth Edition

Range of Motion ▶ **Ankle - Right**

May 07, 2009

	Plantarflexion	Dorsiflexion	Inversion	Eversion
Normals:	40	20	30	20
	33	20	30	16

% of Normal	82%	100%	100%	80%
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Reference Information

American Medical Association Guides to the Evaluation of Permanent Impairment, Fifth Edition

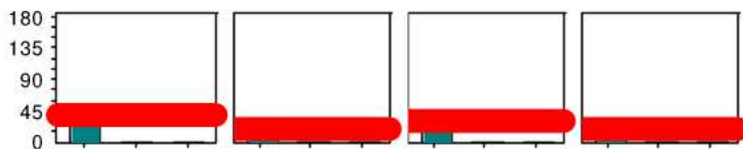


Range of Motion ▶ **Ankle - Left**

May 07, 2009

	Plantarflexion	Dorsiflexion	Inversion	Eversion
Normals:	40	20	30	20
	40	20	30	20

% of Normal	100%	100%	100%	100%
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Reference Information

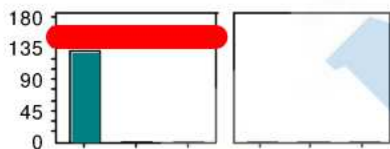
American Medical Association Guides to the Evaluation of Permanent Impairment, Fifth Edition

Range of Motion ▶ **Knee - Left**

May 07, 2009

	Flexion	Extension
Normals:	150	0
	133	0

% of Normal	89%	100%
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Reference Information

American Medical Association Guides to the Evaluation of Permanent Impairment, Fifth Edition



Hand Grip Strength

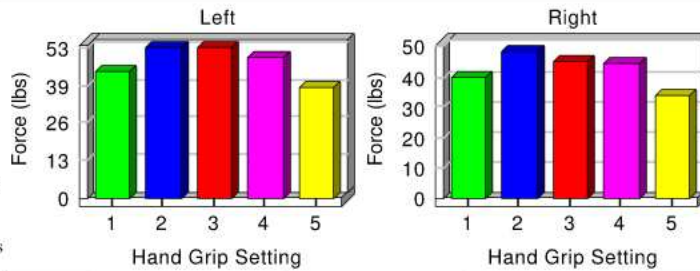
The JAMAR hand dynamometer was used in order to quantify grip strength and determine whether Mr. Patient exerted consistent effort during grip strength testing. Mr. David Patient was tested using the maximum voluntary effort and rapid exchange hand grip protocols. Mr. David Patient is right hand dominant. Normative data is based on the assumption that right and left hand dominant subjects, analyzed separately show little functional difference between their mean scores.^{1, 2.}



The hand dynamometer is set to each of the five available positions which vary the client's grip size. The results for each of the average maximum forces during each position are displayed by the corresponding bar graphs.

Maximum Voluntary Effort (MVE)

May 07, 2009



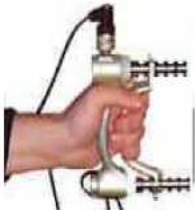
	Left	COV	Right	COV
Pos #1	44.2 lbs.	5.1%	40.0 lbs.	10.9%
Pos #2	52.5 lbs.	2.4%	48.3 lbs.	1.5%
Pos #3	52.2 lbs.	3.3%	45.4 lbs.	5.5%
Pos #4	48.9 lbs.	2.4%	44.8 lbs.	2.3%
Pos #5	38.2 lbs.	4.7%	34.2 lbs.	6.0%
St. Dev.	5.4 Lbs.		4.9 Lbs.	

Using the Maximum Voluntary Effort (MVE) protocol over a range of five positions on the hand dynamometer, it is expected that the strength graphs obtained results in a bell-shaped curve^{3,11,12,13.} even in a disabled population or if the client's hand is injured^{3, 13.} with at least 6 of the 10 coefficients of variation within the acceptable 15% or less limit.²²

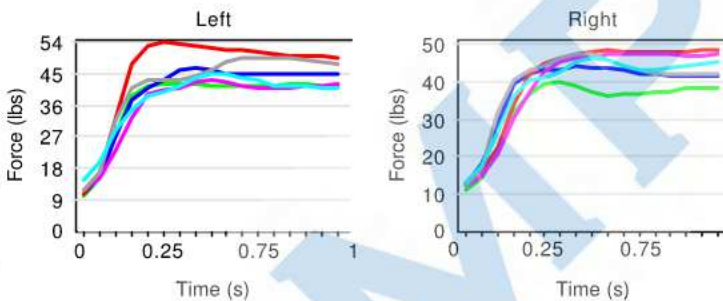
The graph obtained for Mr. David Patient did demonstrate a bell shaped curve which may be an indicator of maximal effort and the coefficients of variation of the underlying data may be an indicator of consistent effort with all 10 coefficients of variation within the 15% acceptable limit.

Rapid Exchange Grip (REG)

May 07, 2009



The hand dynamometer is set to position 2. The client applies a maximum force for a one second trial duration quickly alternating between hands. The average maximum force for all six trials is compared to the maximum voluntary effort value in the same position for reliability purposes.¹³



	Left	Right
Trial #1	42.4 lbs.	39.7 lbs.
Trial #2	47.0 lbs.	43.8 lbs.
Trial #3	54.1 lbs.	48.2 lbs.
Trial #4	43.7 lbs.	47.3 lbs.
Trial #5	50.0 lbs.	47.3 lbs.
Trial #6	45.1 lbs.	45.9 lbs.
Average	47.1 lbs.	45.4 lbs.
Maximum	54.1 lbs.	48.2 lbs.
Diff L Vs. R	3.8%	

The peak average force value recorded during the maximum voluntary effort protocol was 52.5 lbs performed at position 2. The Rapid Exchange Grip (REG) protocol was therefore administered at this position. A negative rapid exchange grip (REG) occurs when the average of the values recorded during the rapid exchange grip protocol are less than the average of the values recorded during the maximum voluntary effort protocol in the same position and for the same hand. Conversely, a positive REG occurs when the average of the values recorded during the rapid exchange grip protocol exceed the average of the values recorded during the maximum voluntary effort protocol in the same position and for the same hand. A negative REG allows the evaluator to have more confidence that the evaluatee is performing maximally. A positive REG may be an indicator of submaximal effort.¹³ Mr. David Patient produced an average value of 47.1 lbs for the left hand and 45.4 lbs for the right hand during the rapid exchange protocol. He produced an average value of 52.5 lbs for the left hand and 48.3 lbs for the right hand during the maximum voluntary effort protocol. David Patient therefore demonstrated a negative REG which may be an indicator of maximal effort.

³ Stokes H. 1983. The seriously uninjured hand - weakness of grip. J Occup Med 25(9):683-684.

¹¹ Niebuhr B, Marion R. 1990. Voluntary control of submaximal grip strength. Am J Phys Med Rehabil 69(2): 96-101.

¹² Matheson L, Carlton R, Niemeyer L. 1988. Grip strength in a disabled sample: reliability and normative standards. Ind Rehabil Q 1(3):9,17-23.

¹³ Hildreth D, Breidenbach W, Lisiter G, Hodges A. 1989. Detection of submaximal effort by use of the rapid exchange grip. J Hand Surgery 14A(4): 742-745.

²² Klimek E, Strait J. 1997. Volition in impairment rating: the validity of effort assessment. J Occup Med 6(2) 9-18.



Pinch Strength

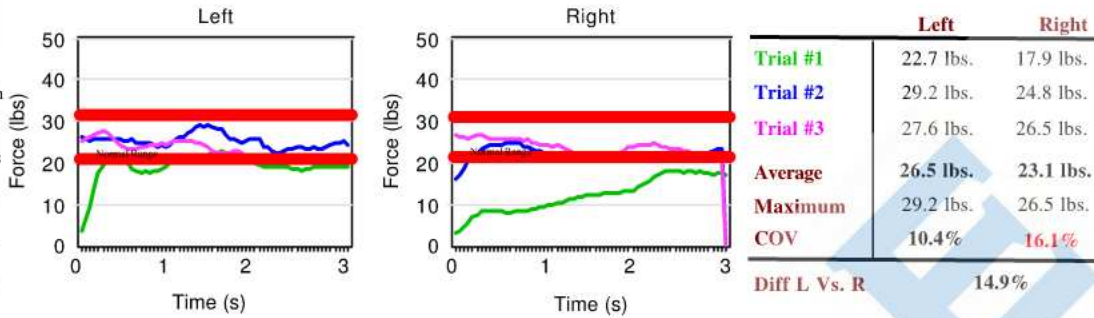
The FOCUS pinch strength test is performed to quantify pinch strength as compared to population norms.† Mr. David Patient was asked to perform three forms of pinch strength tests including the tip, key and palmar pinch. The data demonstrated that Mr. David Patient's tip pinch strength was normal for both the left and right hand. His left hand was 15.9% stronger than the right hand. Key pinch strength was normal for both the left and right hand. His left hand was 14.9% stronger than the right hand. Palmar pinch strength was low for the left hand and significantly low for the right hand. His left hand was 19.4% stronger than the right hand.

May 07, 2009

Key Pinch Strength



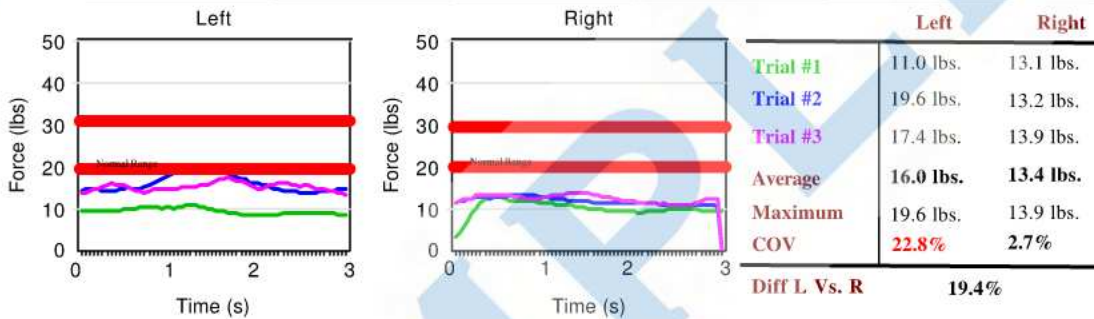
The client squeezes the pinch gauge using a key pinch for a three second trial duration. A rest period of 5 seconds is given before testing the other hand. This process is repeated three times. The average of the three trials is compared to published population normal values.†



Palmar Pinch Strength



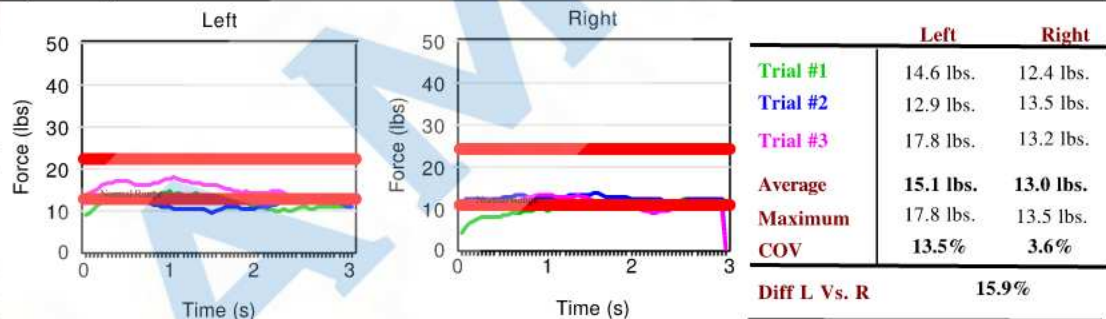
The client squeezes the pinch gauge using a palmar pinch for a three second trial duration. A rest period of 5 seconds is given before testing the other hand. This process is repeated three times. The average of the three trials is compared to published population normal values.†



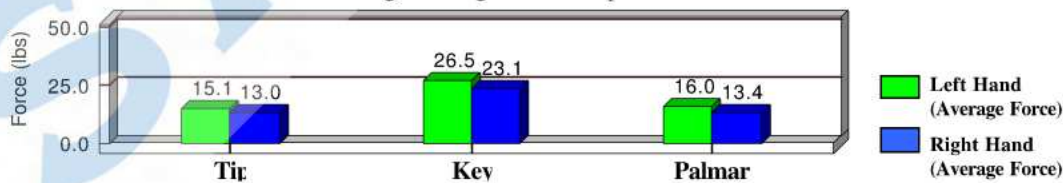
Tip Strength



The client squeezes the pinch gauge using a tip pinch for a three second trial duration. A rest period of 5 seconds is given before testing the other hand. This process is repeated three times. The average of the three trials is compared to published population normal values.†



Pinch Strength Average Force Comparison



† Mathiowetz V, Kashman N, Volland G, Weber K, Dowe M, Rogers S. 1985. Grip and pinch strength: normative data for adults. Arch Phys Med



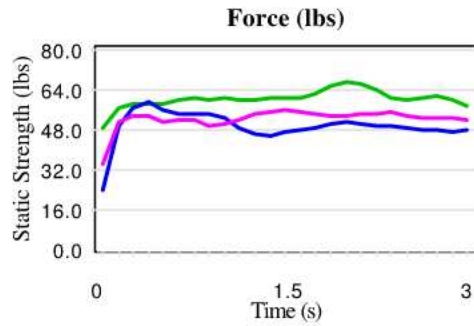
Static Push Strength

Test Date: May. 07, 2009

Acc. Rot. Angle:
Accessory Angle

Handle Type Wide

Foot Placement 10/30



Trial 1: 67.1 lbs	Average: 60.7 lbs
Trial 2: 58.9 lbs	COV: 7.7%
Trial 3: 56.0 lbs	

Mr. Patient reached an average peak force of 60.7 lbs. for the Static Push Strength test. The coefficient of variation was 7.7% during the Static Push Strength. Values greater than 15% may be an indicator of submaximal effort.

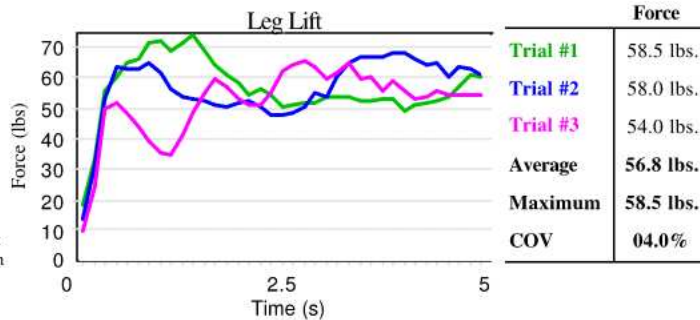
SAMPLE

Mr. David Patient's ability to lift, push or pull was assessed using the FOCUS Standard NIOSH strength test. It is predictable that leg strength will be greater than either torso or arm strength.†

May 07, 2009



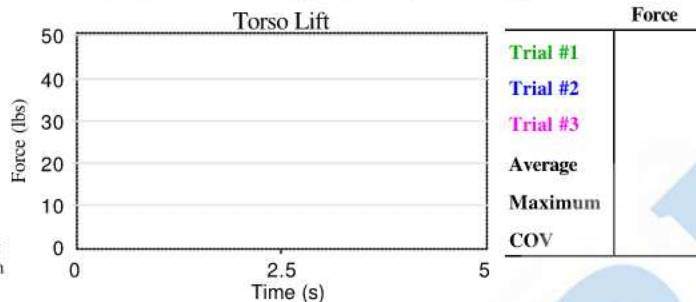
The client pulls up for a five second trial duration. A rest period of 15 seconds is given in between the three trials.



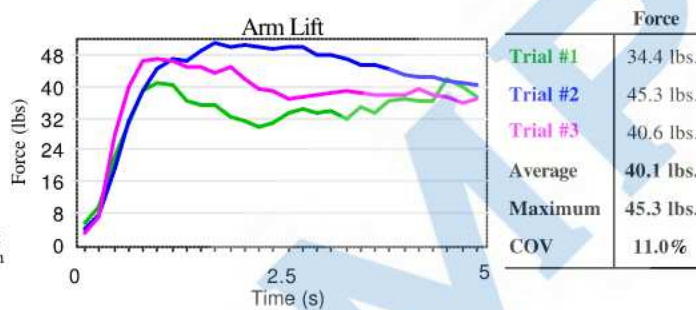
An average force of 56.8 lbs. was exerted by Mr. David Patient during the leg lift. The coefficient of variation for this test was 4%. Values greater than 15% may be an indicator of inconsistent effort.



The client pulls up for a five second trial duration. A rest period of 15 seconds is given in between the three trials.



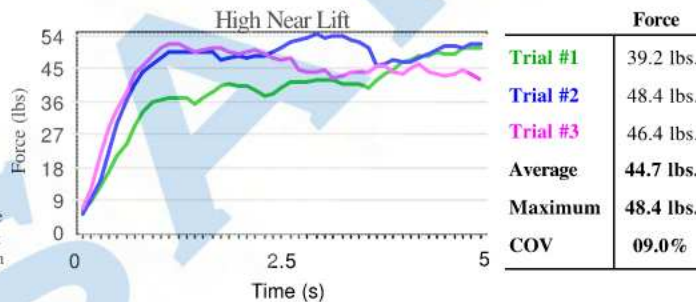
The client pulls up for a five second trial duration. A rest period of 15 seconds is given in between the three trials.



An average force of 40.1 lbs. was exerted by Mr. David Patient during the arm lift. The coefficient of variation for this test was 11%. Values greater than 15% may be an indicator of inconsistent effort.



The client pushes up for a five second trial duration. A rest period of 15 seconds is given in between the three trials.



An average force of 44.7 lbs. was exerted by Mr. David Patient during the high near lift. The coefficient of variation for this test was 9%. Values greater than 15% may be an indicator of inconsistent effort.

Evaluator Comments

Throbbing to lumbar reported throughout activity. Poking/stabbing pain to right ankle reported during leg lift. Torso Lift not performed

† Atuahene, F and A. Freivalds (1987) Comparison of Dynamic Static and Psychophysical Evaluations of Human Strength Capabilities. Journal of Human Ergology, Vol. 16, No. 2: 17-191

Dynamic Lifting - Floor to Waist Occasional

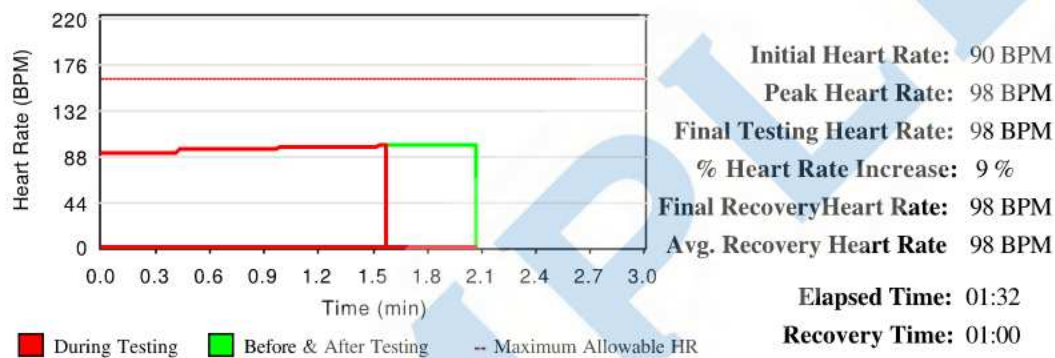
May 07, 2009

The Dynamic Lifting - Floor to Waist Occasional was conducted in Mr. Patient's case in order to determine his ability to complete the task. A progressive loading method was used to determine Mr. Patient's capacity for the performance of dynamic lifting activities on a safe and dependable basis. Lifting was conducted between waist height and floor height for a total of 1 repetition at each weight increment. The increase in the amount of weight lifted was in 10-pound increments.

In order to ensure safety in the administration of the testing protocol, Mr. Patient's heart rate was monitored on a real-time basis. A cut-off of 161 beats per minute, based upon 85 percent of the age-predictive maximum heart rate was used in order to ensure the safe administration of the dynamic lifting protocol. A rating of perceived exertion was also used in order to make certain Mr. Patient was capable of continuing in the protocol without risk of injury.

During the course of testing Mr. Patient's heart rate increased from 90 beats per minute to a peak of 98 beats per minute at the final weight of 30 lbs. This represented a heart rate increase of 9% during the lifting protocol. Mr. Patient's heart rate did not recover. Instead it remained constant at 98 beats per minute during the 1 minute recovery period.

Mr. Patient demonstrated a safe weight lifting ability of 30 lbs. The reason for the conclusion of the dynamic lifting protocol was the fact Mr. Patient stopped the test due to psychophysical factors.



Starting Height	Waist Height	Exertion Rating Stop Point	Heavy
Ending Height	Floor Height	Heart Rate Cut Off	85% of age adj.
Initial Weight	10.0 lbs.	Maximum Test Duration	Unlimited
Weight Increments	10.0 lbs.	Maximum Allowed Weight	None
Repetitions Per Weight	1 Repetition	Maximum Safe Weight Lifted	30 lbs.
Rest Period Per Weight Cycle	No Rest Period		

Evaluator Comments

Patient reported pain to right ankle and lumbar region during this activity.



Dynamic Lifting - Floor to Shoulder Occasional

May 07, 2009

The Dynamic Lifting - Floor to Shoulder Occasional was conducted in Mr. Patient's case in order to determine his ability to complete the task. A progressive loading method was used to determine Mr. Patient's capacity for the performance of dynamic lifting activities on a safe and dependable basis. Lifting was conducted between shoulder height and floor height for a total of 1 repetition at each weight increment. The increase in the amount of weight lifted was in 10-pound increments.

In order to ensure safety in the administration of the testing protocol, Mr. Patient's heart rate was monitored on a real-time basis. A cut-off of 161 beats per minute, based upon 85 percent of the age-predictive maximum heart rate was used in order to ensure the safe administration of the dynamic lifting protocol. A rating of perceived exertion was also used in order to make certain Mr. Patient was capable of continuing in the protocol without risk of injury.

During the course of testing Mr. Patient's heart rate increased from 88 beats per minute to a peak of 98 beats per minute at the final weight of 30 lbs. This represented a heart rate increase of 11% during the lifting protocol. Mr. Patient's heart rate did not recover. Instead it remained constant at 98 beats per minute during the 1 minute recovery period.

Mr. Patient demonstrated a safe weight lifting ability of 30 lbs. The reason for the conclusion of the dynamic lifting protocol was the fact Mr. Patient stopped the test due to psychophysical factors.



Starting Height	Shoulder Height	Exertion Rating Stop Point	Heavy
Ending Height	Floor Height	Heart Rate Cut Off	85% of age adj.
Initial Weight	10.0 lbs.	Maximum Test Duration	Unlimited
Weight Increments	10.0 lbs.	Maximum Allowed Weight	None
Repetitions Per Weight	1 Repetition	Maximum Safe Weight Lifted	30 lbs.
Rest Period Per Weight Cycle	No Rest Period		

Evaluator Comments

Patient had difficulty lifting crate to shoulder level during the 30lb cycle. Poking to shoulder and throb to lumbar region reported.



Dynamic Lifting - Waist to Shoulder Occasional

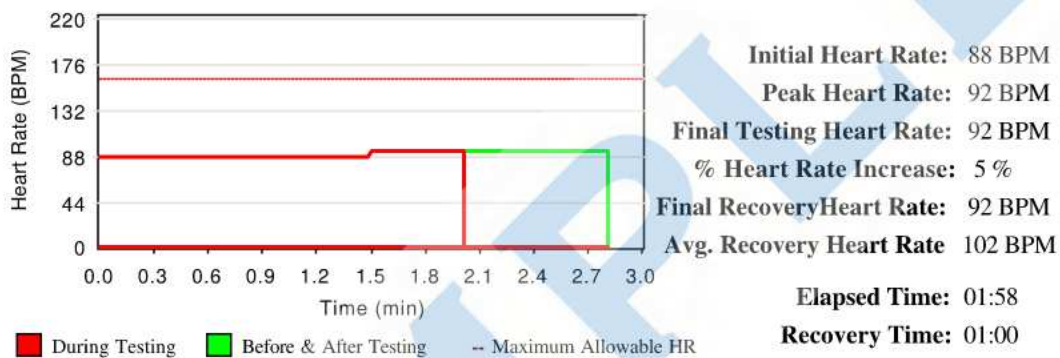
May 07, 2009

The Dynamic Lifting - Waist to Shoulder Occasional was conducted in Mr. Patient's case in order to determine his ability to complete the task. A progressive loading method was used to determine Mr. Patient's capacity for the performance of dynamic lifting activities on a safe and dependable basis. Lifting was conducted between waist height and shoulder height for a total of 1 repetition at each weight increment. The increase in the amount of weight lifted was in 10-pound increments.

In order to ensure safety in the administration of the testing protocol, Mr. Patient's heart rate was monitored on a real-time basis. A cut-off of 161 beats per minute, based upon 85 percent of the age-predictive maximum heart rate was used in order to ensure the safe administration of the dynamic lifting protocol. A rating of perceived exertion was also used in order to make certain Mr. Patient was capable of continuing in the protocol without risk of injury.

During the course of testing Mr. Patient's heart rate increased from 88 beats per minute to a peak of 92 beats per minute at the final weight of 30 lbs. This represented a heart rate increase of 5% during the lifting protocol. Mr. Patient's heart rate did not recover. Instead it remained constant at 92 beats per minute during the 1 minute recovery period.

Mr. Patient demonstrated a safe weight lifting ability of 30 lbs. The reason for the conclusion of the dynamic lifting protocol was the fact Mr. Patient stopped the test due to psychophysical factors.



Starting Height	Waist Height	Exertion Rating Stop Point	Heavy
Ending Height	Shoulder Height	Heart Rate Cut Off	85% of age adj.
Initial Weight	10.0 lbs.	Maximum Test Duration	Unlimited
Weight Increments	10.0 lbs.	Maximum Allowed Weight	None
Repetitions Per Weight	1 Repetition	Maximum Safe Weight Lifted	30 lbs.
Rest Period Per Weight Cycle	No Rest Period		

Evaluator Comments

Patient had a difficult time lifting crate to to shoulder level during the 30lb cycle. Pt reported pain to right shoulder and lumbar following this activity.

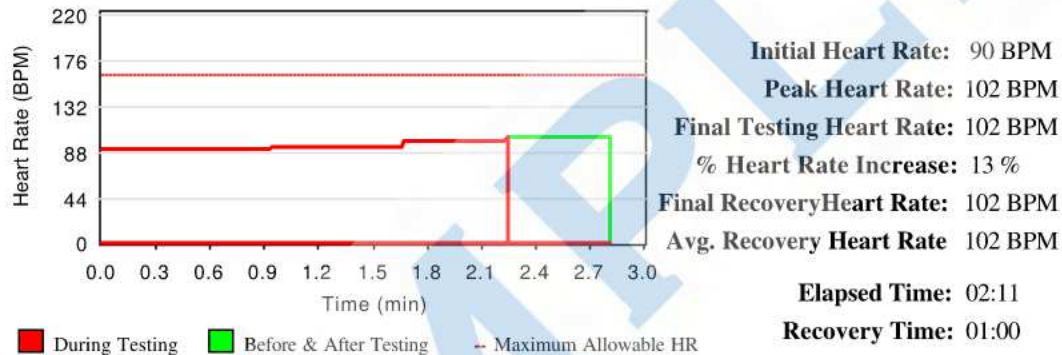


The Dynamic Carrying was conducted in Mr. Patient's case in order to determine his ability to complete the task. A progressive loading method was used to determine Mr. Patient's capacity for the performance of carrying activities on a safe and dependable basis. Carrying was conducted for a distance of 30 feet during each activity repetition. The lift performed in conjunction with the initiation of the carrying activity was at his waist height level. The programmed increase of the weight in this activity was 10 pounds for each carrying cycle.

In order to ensure safety in the administration of the testing protocol, Mr. Patient's heart rate was monitored on a real-time basis. A cut-off of 161 beats per minute, based upon 85 percent of the age-predictive maximum heart rate was used in order to ensure the safe administration of the dynamic carrying protocol. A rating of perceived exertion was also used in order to make certain Mr. Patient was capable of continuing in the protocol without risk of injury.

During the course of testing Mr. Patient's heart rate increased from 90 beats per minute to a peak of 102 beats per minute at the final weight of 40 lbs. This represented a heart rate increase of 13% during the carrying protocol. Mr. Patient's heart rate did not recover. Instead it remained constant at 102 beats per minute during the 1 minute recovery period.

Mr. Patient demonstrated a safe weight carrying ability of 40 pounds. The reason for the conclusion of the dynamic carrying protocol was the fact Mr. Patient stopped the test due to psychophysical factors.



Starting Height	Waist Height	Exertion Rating Stop Point	Heavy
Carry Distance	30 Feet	Heart Rate Cut Off	85% of age adj.
Initial Weight	10.0 lbs.	Maximum Test Duration	Unlimited
Weight Increments	10.0 lbs.	Maximum Allowed Weight	None
Repetitions Per Weight	1 Repetition	Maximum Safe Weight Carried	40 lbs.
Rest Period Per Weight Cycle	No Rest Period		

Evaluator Comments

Patient reported an increase in pain levels to lumbar region, from a 4/10 to 5/10 following this activity.





Please read:

This questionnaire has been designed to give the doctor/clinician information as to how your back pain has affected your ability to manage in everyday life. Please answer every section, and mark in each section only the ONE sentence which applies to you. We realize you may consider that two of the statements in any one section relate to you, but please just mark the sentence which most closely describes your problem.

Section 1 - Pain Intensity

- I can tolerate the pain I have without having to use pain killers.
- The pain is bad but I manage without taking pain killers.
- Pain killers give complete relief from pain.
- Pain killers give moderate relief from pain.
- Pain killers give very little relief from pain.
- Pain killers have no effect on the pain and I do not use them.

Section 2 - Personal Care (Washing, Dressing, etc)

- I can look after myself normally without causing extra pain.
- I can look after myself normally but it causes extra pain.
- It is painful to look after myself and I am slow and careful.
- I need some help but manage most of my personal care.
- I need help every day in most aspects of self care.
- I do not get dressed, wash with difficulty and stay in bed.

Section 3 - Lifting

- I can lift heavy weights without extra pain.
- I can lift heavy weights but it gives extra pain.
- Pain prevents me from lifting heavy weights off the floor, but I can manage if they are conveniently positioned, eg. on a table.
- Pain prevents me from lifting heavy weights but I can manage light to medium weights if they are conveniently positioned.
- I can lift only very light weights.
- I cannot lift or carry anything at all.

Section 4 - Walking

- Pain does not prevent me walking any distance.
- Pain prevents me walking more than 1 mile.
- Pain prevents me walking more than 1/2 mile.
- Pain prevents me walking more than 1/4 mile.
- I can only walk using a stick or crutches.
- I am in bed most of the time and have to crawl to the toilet.

Section 5 - Sitting

- I can sit in any chair as long as I like.
- I can only sit in my favorite chair as long as I like.
- Pain prevents me from sitting more than 1 hour.
- Pain prevents me from sitting more than 1/2 hour.
- Pain prevents me from sitting more than 10 mins.
- Pain prevents me from sitting at all.

Section 6 - Standing

- I can stand as long as I want without extra pain.
- I can stand as long as I want but it gives me extra pain.
- Pain prevents me from standing for more than 1 hour.
- Pain prevents me from standing more than 30 mins.
- Pain prevents me from standing more than 10 mins.
- Pain prevents me from standing at all.

Section 7 - Sleeping

- Pain does not prevent me from sleeping well.
- I can sleep well only by using tablets.
- Even when I take tablets I have less than six hours sleep.
- Even when I take tablets I have less than four hours sleep.
- Even when I take tablets I have less than two hours sleep.
- Pain prevents me from sleeping at all.

Section 8 - Sex Life

- My sex life is normal and causes no extra pain.
- My sex life is normal but causes some extra pain.
- My sex life is nearly normal but is very painful.
- My sex life is severely restricted by pain.
- My sex life is nearly absent because of pain.
- Pain prevents any sex life at all.

Section 9 - Social Life

- My social life is normal and gives me no extra pain.
- My social life is normal but increases the degree of pain.
- Pain has no significant affect on my social life apart from limiting my more energetic interests, eg. dancing, etc.
- Pain has restricted my social life and I do not go out as often.
- Pain has restricted my social life to my home.
- I have no social life because of pain.

Section 10 - Travelling

- I can travel anywhere without extra pain.
- I can travel anywhere but it gives me extra pain.
- Pain is bad but I manage journeys over two hours.
- Pain restricts me to journeys of less than one hour.
- Pain restricts me to short necessary journeys under 30 minutes.
- Pain prevents me from travelling except to the doctor or hospital.

Total Score: 25

Disability Percentage Rating 55.56%

Disability Profile Rating: Severe disability

Description: **Pain remains the main problem in this group of patients, but travel, personal social life, sexual activity and sleep are also affected. These patients require detailed investigation.**

Dallas Pain Questionnaire

Please read:

This questionnaire has been designed to give the doctor information as to how your pain has affected your life. Be sure that these are your answers. Do not ask someone else to fill out the questionnaire for you. Please click on the line in the position that expresses your thoughts from 0 to 100% in each section.

Scoring: Factor I: 81% Daily Activities
Factor II: 90% Work/Leisure Activities
Factor III: 25% Anxiety/Depression
Factor IV: 55% Social Interest

Primary Approach: No profile match found

May 07, 2009

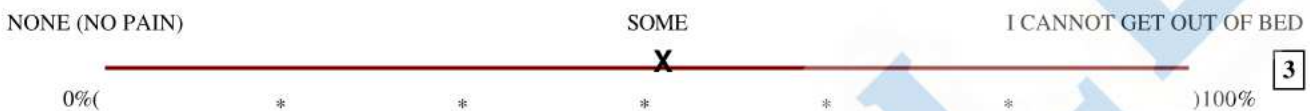
SECTION I: PAIN AND INTENSITY

To what degree do you rely on pain medications or pain relieving substances for you to be comfortable?



SECTION II: PERSONAL CARE

How much does pain interfere with your personal care (getting out of bed, teeth brushing, dressing, etc)?



SECTION III: LIFTING

How much limitation do you notice in lifting?



SECTION IV: WALKING

Compared to how far you could walk before your injury or back trouble, how much does pain restrict your walking now



SECTION V: SITTING

Back pain limits my sitting in a chair to:



SECTION VI: STANDING

How much does your pain interfere with your tolerance to stand for long periods?



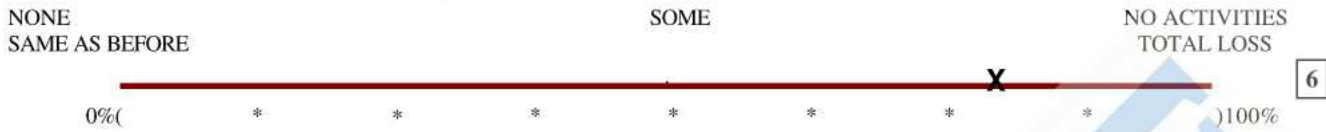
SECTION VII: SLEEPING

How much does pain interfere with your sleeping?



SECTION VIII: SOCIAL LIFE

How much does pain interfere with your social life (dancing, games, going out, eating with friends, etc)?



SECTION IX: TRAVELING

How much does pain interfere with traveling in a car?



SECTION X: VOCATIONAL

How much does pain interfere with your job?



SECTION XI: ANXIETY/MOOD

How much control do you feel that you have over demands made on you?



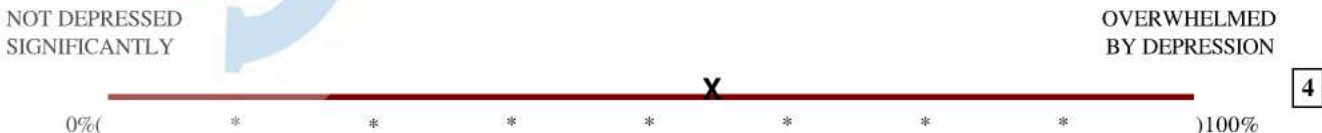
SECTION XII: EMOTIONAL CONTROL

How much control do you feel you have over your emotions?



SECTION XIII: DEPRESSION

How depressed have you been since the onset of pain?



SECTION XIV: INTERPERSONAL RELATIONSHIPS

How much do you think your pain has changed your relationships with others?



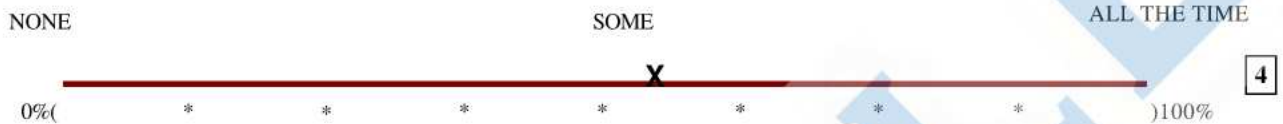
SECTION XV: SOCIAL SUPPORT

How much support do you need from others to help you during this onset of pain (taking over chores, fixing meals, etc.)?



SECTION XVI: PUNISHING RESPONSE

How much do you think others express irritation, frustration or anger toward you because of your pain?



Cardiovascular Intake

May 07, 2009

Resting Rate (Min)	Systolic (mm Hg)	Diastolic (mm Hg)
88	114	89

Result	Normal Heart Rate	Normal Blood	High Normal Blood Pressure
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Bruce Treadmill



The test is a continuous, multi-stage test that starts with a low speed and grade gradually increasing until the patient decides to quit.

Maximal oxygen consumption is the most valid means of determining cardiorespiratory fitness or maximal aerobic power. Mr. Patient was asked to work on a treadmill in order to directly measure his maximum oxygen intake. The Bruce Treadmill Test (Bruce et al, 1973) is a submaximal test based on the linear relationship that exists between workload (VO₂) and heart rate. The test is a continuous, multi-stage test that starts with a low power output and gradually progresses through increments in speed and grade of the treadmill every 3 minutes until the client decides to quit. Mr. Patient's maximum oxygen intake (VO₂ max) during the Bruce treadmill protocol was 25.94 ml/(Kg*min) when his maximum oxygen intake is compared to age and sex matched population norms this corresponds to the 0th percentile and is a poor ranking.

Test Date	Time (min)	VO ₂		Percentile	Rating
		Max (ml kg ⁻¹ min ⁻¹)			
May 07, 2009	06:34	25.94		0%	Poor

Evaluator Comment

Speed	Starting HR	Ending HR	Comments
1.7	88	98	Patient completed this speed with no problem
2.5	98	108	Pain to right ankle reported
3.4	108	114	Pt reported increased pain to right ankle, pt began using rails and limping. Pt requested testing be stopped.

Testing Summary Report

Mr. David Patient

Cardiovascular

Bruce Treadmill

May 07, 2009

Time	VO2 Max	Percentile	Rating
06:34	25.944	0	Poor

Cardiovascular Intake

May 07, 2009

Heart Rate	Blood Pressure
88	114/89

Range Of Motion

Ankle - Left

May 07, 2009

	<u>Flexion Contracture:</u>			
	<u>Plantarflexion</u>	<u>Dorsiflexion</u>	<u>Inversion</u>	<u>Eversion</u>
Total Active Motion	40.0	20.0	30.0	20.0
Normals	40.0	20.0	30.0	20.0
% Normal	100.0%	100.0%	100.0%	100.0%

Ankle - Right

May 07, 2009

	<u>Flexion Contracture:</u>			
	<u>Plantarflexion</u>	<u>Dorsiflexion</u>	<u>Inversion</u>	<u>Eversion</u>
Total Active Motion	33.0	20.0	30.0	16.0
Normals	40.0	20.0	30.0	20.0
% Normal	82.0%	100.0%	100.0%	80.0%

Knee - Left

May 07, 2009

	<u>Flexion Contracture:</u>	
	<u>Flexion</u>	<u>Extension</u>
Total Active Motion	133.0	0.0
Normals	150.0	0.0
% Normal	89.0%	100.0%

Knee - Right

May 07, 2009

	<u>Flexion Contracture:</u>	
	<u>Flexion</u>	<u>Extension</u>
Total Active Motion	117.0	0.0
Normals	150.0	0.0
% Normal	78.0%	100.0%

Lumbar

May 07, 2009

	<u>True Lumbar Flexion</u>	<u>True Lumbar Extension</u>	<u>Left Lateral Flexion</u>	<u>Right Lateral Flexion</u>	<u>Left Straight Leg Raise</u>	<u>Right Straight Leg Raise</u>
	Total Active Motion	50.0	22.7	27.0	25.0	35.7
Co. Of Variation	2.0%	2.0%	6.0%	0.0%	3.0%	7.0%
Normals	60.0	25.0	25.0	25.0	80.0	80.0
% Normal	83.0%	91.0%	108.0%	100.0%	45.0%	37.0%

Shoulder - Left

May 07, 2009

	<u>Flexion</u>	<u>Extension</u>	<u>Abduction</u>	<u>Adduction</u>	<u>Internal Rotation</u>	<u>External Rotation</u>
Total Active Motion	150.0	40.0	150.0	30.0	77.0	90.0
Normals	150.0	40.0	150.0	30.0	80.0	90.0
% Normal	100.0%	100.0%	100.0%	100.0%	96.0%	100.0%

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May 07, 2009

▶ Shoulder - Right

	<u>Flexion</u>	<u>Extension</u>	<u>Abduction</u>	<u>Adduction</u>	<u>Internal Rotation</u>	<u>External Rotation</u>
Total Active Motion	124.0	32.0	107.0	30.0	60.0	88.0
Normals	150.0	40.0	150.0	30.0	80.0	90.0
% Normal	83.0%	80.0%	71.0%	100.0%	75.0%	98.0%

Self Reports

▶ Dallas Pain Questionnaire

May 07, 2009

<u>I: Daily Activities</u>	<u>II: Work/Leisure Activities</u>	<u>III: Anxiety/Depression</u>	<u>IV: Social Interest</u>	<u>Primary Approach</u>
81%	90%	25%	55%	No profile match found

▶ Oswestry Low Back Pain Disability

May 07, 2009

<u>Score</u>	<u>Percentile</u>	<u>Rating</u>
25	55.56%	Severe disability

Strength

▶ Standard NIOSH

May 07, 2009

	<u>Leg Lift</u>	<u>Torso Lift</u>	<u>Arm Lift</u>	<u>High Near Lift</u>
Force	56.8		40.1	44.7
Co. Of Variation	4.0%		11.0%	9.0%

Work Simulation

▶ Dynamic Carrying

May 07, 2009

<u>Final Safe Weight</u>	<u>Heart Rate Initial</u>	<u>Heart Rate Maximum</u>	<u>Final Exertion Rating</u>	<u>Termination Reason</u>	<u>Job Demand/Lifting Restriction</u>
40 lbs	90	102	08	Psychophysical factors	None/None

▶ Dynamic Lifting - Floor to Shoulder Occasional

May 07, 2009

<u>Final Safe Weight</u>	<u>Heart Rate Initial</u>	<u>Heart Rate Maximum</u>	<u>Final Exertion Rating</u>	<u>Termination Reason</u>	<u>Job Demand/Lifting Restriction</u>
30 lbs	88	98	07	Psychophysical factors	None/None

▶ Dynamic Lifting - Floor to Waist Occasional

May 07, 2009

<u>Final Safe Weight</u>	<u>Heart Rate Initial</u>	<u>Heart Rate Maximum</u>	<u>Final Exertion Rating</u>	<u>Termination Reason</u>	<u>Job Demand/Lifting Restriction</u>
30 lbs	90	98	07	Psychophysical factors	None/None

▶ Dynamic Lifting - Waist to Shoulder Occasional

May 07, 2009

<u>Final Safe Weight</u>	<u>Heart Rate Initial</u>	<u>Heart Rate Maximum</u>	<u>Final Exertion Rating</u>	<u>Termination Reason</u>	<u>Job Demand/Lifting Restriction</u>
30 lbs	88	92	07	Psychophysical factors	None/None

▶ Hand Grip - MVE

May 07, 2009

	<u>Force Position 1</u>	<u>Force Position 2</u>	<u>Force Position 3</u>	<u>Force Position 4</u>	<u>Force Position 5</u>
Left	44.2 lbs. COV = 5.1%	52.5 lbs. COV = 2.4%	52.2 lbs. COV = 3.3%	48.9 lbs. COV = 2.4%	38.2 lbs. COV = 4.7%
Right	40.0 lbs COV = 10.9%	48.3 lbs COV = 1.5%	45.4 lbs COV = 5.5%	44.8 lbs COV = 2.3%	34.2 lbs COV = 6.0%

▶ Hand Grip - Rapid

May 07, 2009

	<u>Force</u>
Left	47.1 lbs.
Right	45.4 lbs.

▶ Pinch Grip - Key

May 07, 2009

	<u>Force</u>	<u>Normals</u>	<u>Result</u>	<u>Co. Of Variation</u>
Left	26.5 lbs.	26.2 lbs.+5.1 lbs.	Normal	10.4%
Right	23.1 lbs.	26.4 lbs.+4.8 lbs.	Normal	16.1%



▶ Pinch Grip - Palmar

	<u>Force</u>	<u>Normals</u>	<u>Result</u>	<u>Co. Of Variation</u>
Left	16.0 lbs.	25.4 lbs.+5.7 lbs.	Low	22.8%
Right	13.4 lbs.	24.7 lbs.+4.7 lbs.	Low	2.7%

▶ Pinch Grip - Tip

May 07, 2009

	<u>Force</u>	<u>Normals</u>	<u>Result</u>	<u>Co. Of Variation</u>
Left	15.1 lbs.	17.6 lbs.+4.8 lbs.	Normal	13.5%
Right	13.0 lbs.	17.6 lbs.+6.7 lbs.	Normal	3.6%

▶ Static Push Strength

May 07, 2009

	<u>Force</u>	<u>Co. Of Variation</u>
Neutral	60.7 lbs.	7.7%

SAMPLE

