Integrating the Multidimensional Task Ability Profile in Physical Medicine

MTAP Program Details

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The Multidimensional Task Ability Profile (MTAP)

The Multidimensional Task Ability Profile (MTAP) is a web-based and computer–administered patient reported outcome measure designed to assess physical function. The MTAP identifies specific functional limitations and the general effect of these limitations on a person's ability to work, provide self-care and participate in other home or community activities.

The MTAP assesses a wide range of common activities of daily living (ADLs); from self-care, to cooking and light housekeeping, to heavy home maintenance and lawn gardening tasks. Through serial testing the MTAP can monitor treatment progress, maximum functional improvement and treatment outcomes. Automated scoring and reporting mechanisms, including the **"Patient Report Card"** and **"Workability Report"** prepared in the patient's native language (English or Spanish), are practical features of the software.

Significant emphasis has been placed in evidence-based medicine for interventions implemented into treatment guidelines and the development of effective use of PROs is an important aspect of clinical care. PROs are an important component of these quality-based initiatives utilized by government agencies such as the NIH and CMS/Medicare, along with private payers and health care providers. Precise and practical outcome measures improve healthcare delivery by helping to guide and support treatment, as well as documenting clinical outcomes. At present, the use of PRO's has been mandated by Medicare when providing rehabilitation services. Programs/requirements similar to Blue Shield's "Pay for Performance" are emerging yearly advocate the routine use of PROs as part of an EBM treatment plan.

One of the most significant innovations of the MTAP is its simplicity of design in which each of the items are illustrated by short captions combined with pictures of common tasks including ADLs and work activities. The combination of a caption and picture allows for more rapid cognitive processing at a lower level of ambiguity than text captions alone. This decreases evaluee response effort and error, standardizes items across patients, and allows for more information to be gathered in a shorter period of time. Moreover, incorporating text captions with pictures helps accommodate patients with low literacy levels and assists with cross-cultural adaptation. Accordingly, this combination is an extremely important advantage for PROs. To our knowledge, no other PRO for physical function incorporates this combination other than the precursors to the MTAP.

Practical features of the MTAP include automatic scoring and reporting mechanisms, such as the "Patient Report Card" and "The Workability Report" prepared in the patient's native language (English or Spanish), which encourages functional improvement dialogue between the patient and healthcare provider.

MTAP scores are linked to all jobs that are classified according to PDC level. Additional external linkages are linked to MTAP responses to levels of activities of daily living (ADL), instrumental activities of daily living (IADL) and to the EPIC Lift Capacity (ELC) test.

The MTAP is the most recent iteration of innovative self-report measures. Although many musculoskeletal self-report measures are in use today such as the SF-36, Oswestry, Pain Disability Questionnaire (PDQ), Rolland Morris, the DASH and Quick DASH, and many more, these self-report measures have been lacking in the following areas:

- Current PROs have an absence of a focus on work; no useful information is obtained with respect to an individual's ability to work.
- Current PROs assess disability as opposed to ability
- Current PROs rely only on text items
- Current PROs that do not use IRT and Rasch analysis to calibrate items lack reliability and validity
- Current items may not promote patient centered care

- Current items may not be validated into the Spanish language

What is the science behind the MTAP that helps objectify subjective information? MTAP incorporates the item response theory (IRT) and Rasch Analysis to provide a more robust patient reported outcome tool.

Although item calibration and rating scale calibration is widespread in the field of Education, the need for such calibration has only recently been appreciated in Healthcare. Educators have recognized the problems created by the use measurements from non-calibrated instruments for decades, resulting in the development of computer-intensive analytic methods to empirically calibrate items and rating scales with item response theory (IRT) models. The IRT approach to measurement is based on the assumption that the relationship between each evaluee and each item is necessary to understand, requiring statistical methods that investigate the relationship.

The item calibration and Rasch analysis includes the ability to predict how a subject or evaluee would likely answer or respond to certain items to a high degree of probability. The Rasch item response theory provides an INFIT score as an indicator of responses different from the expected response pattern on items near the ability level of the evaluee. This INFIT score provides a method to examine reliability of the match of the evaluee to the items. The OUTFIT score is sensitive to items that are outliers, either very easy or very difficult, compared to the evaluee's Ability score. This OUTFIT score reflects unusual responses that are at the extremes of the evaluee's Ability score.

In recent years, the methods of Rasch and other item response theorists have been applied in Healthcare to improve the psychometric reliability and validity of measures and are being used in the National Institutes of Health Patient Reported Outcomes Measurement Information System (PROMIS) project. These procedures allow the proportional calibration of ordinal self-report items on an interval scale. This improves the reliability and validity of the instrument and allows higher levels of sensitivity and specificity.

Through the IRT and Rasch analysis, the MTAP is validated for clients with secondary gain

The MTAP was validated on a diverse patient population, including thousands of patients from the workers' compensation and personal injury systems, in which secondary gain is an ever-present issue. The INFIT and OUTFIT scores have been found to be sensitive to outlier responses that allow the clinician to address complex polytrauma cases. In the absence of polytrauma, INFIT and OUTFIT scores that are in excess of 1.50 indicate unacceptable inconsistency and require clinical confirmation. In addition to the manifestation of adverse psychosocial behaviors, some possible reasons for inconsistent INFIT and OUTFIT scores may include but not limited to: poor language proficiency, the misunderstanding of items or questions due to poor literacy, or cognition difficulties. Clinical correlation and or additional psychometric testing is advised with high or unreliable INFIT/OUTFIT scores.

Example: Consistent and Inconsistent: INFIT/ OUTFIT scores can be found under Response Consistency section of the Health and Behavioral Assessment Report below.

Inconsistent INFIT/OUTFIT scores example report verbiage:

The patient's Physical Function score is 11/200 via the MTAP standardized functional outcome tool and demonstrates inconsistent responses. The Health and Behavioral Assessment report notes that the INFIT (2.15) and OUTFIT (4.05) scores that are in excess of 1.50 indicate unacceptable inconsistency and require clinical confirmation.

Consistent INFIT/OUTFIT scores example report verbiage:

The patient Physical Function score is 113/200 via the MTAP standardized functional outcome tool and demonstrates consistent responses. The Health and Behavioral Assessment report notes that the INFIT (0.61) and OUTFIT (0.86) scores that are below 1.50 indicating acceptable consistency. This demonstrates valid and reliable outcome responses that can be clinically confirmed.

Test Physical Therapy

Multidimensional Task Ability Profile

Health and Behavioral Assessment

Junior Hernandez
(Current) Test A = 08/31/14

1 = Able 2 = Slightly Restricted 3 = Restricted 4 = Very Restricted 5 = Unable ? = Don't Know

Question	A
1) Use a spoon to eat a bowl of soup.	2
2) Make a shopping list with a pencil.	2
3) Turn a lever knob to open a door.	1
4) Pour a cup of coffee from a coffee pot.	3
5) Cut a piece of steak with a fork and sharp knife.	2
6) Walk 200 feet (61 m) on a sidewalk.	2
7) Cut a coupon from a cereal box.	1
8) Peel a potato with a potato peeler.	1
9) Turn a large nut on a bolt until it is finger tight.	2
10) Walk up a few stairs.	2
11) Remove the lid of a soup can with a rotary opener.	1
12) Get out of an automobile driver's seat.	2
13) Drive a screw with a small screwdriver.	2
14) Walk up flight of stairs.	2
15) Change a light bulb overhead.	3
16) Climb a step-ladder.	2
17) Retrieve a small tool from the floor.	1
18) Hammer a large nail into a piece of lumber.	1
19) Use a roller to paint an interior wall.	2
20) Hike mile (1.6 km) on a trail in the woods at a leisurely pace.	2
21) Remove a large nail from a piece of lumber with a claw hammer.	2
22) Crawl under a dinner table to retrieve a spoon.	1
23) Sweep a driveway with a push broom.	2
24) Use a pair of pliers to tighten a sprinkler.	2
25) Sit in an armchair at a theatre for 2 hours.	3

Question	A
26) Unload two 10-pound (4.5-kg) grocery bags from the trunk of an automobile.	2
27) Drive a wood screw with a large screwdriver.	1
28) Use a garden rake to collect leaves from a lawn.	2
29) Sand a table with an electric sander.	1
30) Cut a piece of wood with a hand saw.	2
31) Break loose a rusted nut with a hex wrench.	2
32) Trim a tree with a long handled shear.	4
33) Unload 20-pound (9.1-kg) grocery bag from the trunk of an automobile.	3
34) Carry 20-pound (9.1-kg) sack of groceries for 100 feet (30.5 m).	2
35) Lift 20-pound (9.1-kg) tool box from the floor to a bench.	3
36) Lift 20-pound (9.1-kg) milk crate from the floor to eye-level.	4
37) Use an automobile jack to lift a car.	3
38) Dig a hole with a spade shovel to plant a small tree.	3
39) Carry 20-pound (9.1-kg) bucket up a step-ladder.	3
40) Use a T-handle wrench to remove automobile lug nuts.	3
41) Carry 30-pound (13.6-kg) bucket in one hand for 50 feet (15.2 m).	4
42) Use a hoe to mix cement in a wheelbarrow.	3
43) Drive a stake with a sledge hammer.	4
44) Carry 50-pound (22.7-kg) crate for 50 feet (15.2 m).	4
45) Lift 50-pound (22.7-kg) milk crate from the floor to a bench.	4
46) Lift 50-pound (22.7-kg) milk crate from the floor to eye-level.	4
47) Push a full wheelbarrow up a ramp.	4
48) Lift 100-pound (45.4-kg) milk crate from the floor to a bench.	5
49) Carry 100-pound (45.4-kg) crate for 50 feet (15.2 m).	4
50) Lift 100-pound (45.4-kg) milk crate from the floor to eye-level.	5

Summary:

Exam	Pain Intensity	Present Health	Start Time	Duration
A	1	2	6:43 pm	12 minutes

Pain Intensity: 1-10 (0=No pain; 10=Worst imaginable pain)
Present Health: 1-4 (1=Excellent; 2=Good; 3=Fair; 4=Poor)

Test notes:

Response Consistency (Current Test)

Junior Hernandez is a male in the 'B' age group. Therefore, the statistical match between Junior Hernandez's reported ability and the difficulty of items near his expected ability level is **Consistent** (INFIT = 0.61). The global statistical match between ability and items at the extremes of difficulty (i.e. very easy and very difficult) is **Consistent** (OUTFIT = 0.86).

INFIT and OUTFIT Scores: < 1.5 Consistent; > 1.5 Inconsistent. NOTE: Clinical correlation is advised for inconsistent scores. When there are multiple areas of impairment, individual item responses may be accurate but can lead to inflated INFIT and OUTFIT scores.

744 8th Avenue • San Diego, CA • 92101 • (619) 315-5746 Provider Signature: _____

INFIT and OUTFIT scores ➔

How was the MTAP linked and compared to the PDC external work measurements?

The MTAP collects information about physical performance ability and compares it to external work standards to help guide decisions related to work preparedness. Rather than simply collect information about physical performance ability in general, the linking of items to work standards provides the possibility of a crosswalk from MTAP scores to ratings on external scales that are used for return to work, modified work duties or permanent work restrictions.

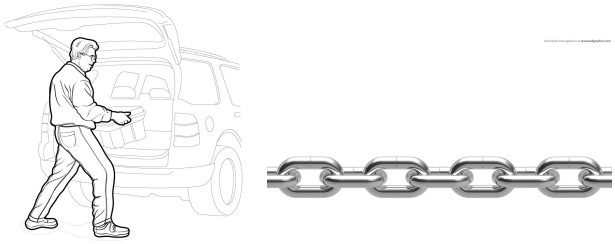
The development and selection of MTAP items includes the “Physical Demand Characteristics of Work” categorization of the strength demands of jobs, which was developed by the United States Department of Labor. This scale is used in the job analysis systems that the United States Department of Labor has published and used to collect data for the Dictionary of Occupational Titles (DOT). Although the DOT has itself been abandoned by the United States Department of Labor in favor of the O*NET system, the PDC system continues to be used in

rehabilitation around the world and has been adopted by the Economic Resources Institute for the eDOT project, which continues to collect job analysis data in a rapid and dynamic electronic model using the Internet. The PDC categorization system is an important external reference for the MTAP due to widespread adoption by rehabilitation professionals. It allows MTAP scores to be linked to all jobs that are classified according to PDC level. Additional external linkages are available, including linking MTAP responses to levels of activities of daily living (ADL), instrumental activities of daily living (IADL), and to the EPIC Lift Capacity (ELC) test.

Physical Demand Characteristics (PDC) of Work

Physical Demand Level	Occasional 0-33% of the workday	Frequent 34%-66% of the workday	Constant 67%-100% of the workday	Typical Energy Required
Sedentary	10 lbs.	Negligible	Negligible	1.5 - 2.1 METS
Light	20 lbs.	10 lbs.	Negligible	2.2 - 3.5 METS
Medium	20 to 50 lbs.	10 to 25 lbs.	10 lbs.	3.6 - 6.3 METS
Heavy	50 to 100 lbs.	25 to 50 lbs.	10 to 20 lbs.	6.4 - 7.5 METS
Very Heavy	Over 100 lbs.	Over 50 lbs.	Over 20 lbs.	Over 7.5 METS

Pictures allow for calibration and MTAP items are *linked* to demonstrable physical ability



PDC Level: Heavy

PDC Level: Heavy

How can the MTAP assist with return to work?

An important focus of the MTAP is the functional capacity of the evaluee in terms of the demands of competitive employment. This focus allows important comparisons to job demands data. The comparison between the MTAP and the United States Department of Labor Physical Demands Characteristic system allows a crosswalk of the MTAP results and interpretation in terms of the evaluee's ability to work. The Ability Scores of applicants, employees, and workers returning from medical leave can be compared to the difficulty of the job tasks, allowing the decision-making of employers, health care professionals, and insurance claims professionals to have a strong and defensible objective basis. Most importantly, the MTAP Workability Report and Patient Report card are useful tools to help promote discussions between patients and providers regarding functional improvement and stimulate return to work.

The MTAP was cross validated and compared with "Objective" Functional Capacity Testing (FCE).

A Functional Capacity Evaluation (FCE) is a comprehensive battery of objective performance based tests that is routinely used to determine ability for work, leisure or activities of daily living. FCEs can help determine decisions about: treatment effects (comparing baseline performance and progress), return-to-work and job-placement decisions, impact on work performance of leisure and non-work-related illness and injuries, disability and impairment reporting, treatment plans and case management. The Employment Potential Improvement Corporation (EPIC) or EPIC Lift Capacity (ELC) compared in research studies to the MTAP, is an evidenced based FCE that is well published and utilized as one of the gold standard FCEs utilized worldwide.

The MTAP uses sophisticated statistical analyses including item response theory (IRT) and Rasch analysis to calibrate MTAP items with actual objective testing (FCE) in order to maximize the precision of assessing an individual's overall function. This modern approach to test analysis provides a more robust item calibration and proportional evaluation of total scores. The MTAP was found to be highly correlated to the EPIC Lift Capacity (ELC) test. The MTAP is reliable ($r = 0.98$, $p < 0.05$) and correlates highly with actual physical function as assessed during objective FCE lifting tasks ($r = 0.89$, $p < 0.05$).

EPIC Lift Capacity/ELC:

Note: The subject wears a heart monitor during the FCE to continuously record performance data while they lift, carry and perform various work tasks with blinded weights. The EPIC/ELC possesses published normative performance data that allow comparison within age and gender categories.

MTAP Set-Up Script

Setting up a patient on the MTAP. Therapist Script:

“Today we would like you to complete a questionnaire that will give us a better idea of your physical function and how we can cater to your specific needs to get you back to doing more things in your daily life and/or at work.

The questionnaire can be taken in English or Spanish, what is your native language?

(Enter all necessary info and select type of test: baseline, progress, etc.- and click *take test*)

“This first screen is a list of instructions of how to take the questionnaire, which I will give you a moment to read. The picture is just an example of a question, so you do not have to click on an answer here.”

After the patient is finished reading: “Do you have any questions?”... Click *next* to begin. (next screen)

“Here is the first question, please click on the bubble of your answer or the word itself and then click *next* to proceed to the next question. Remember to mark your *current* ability to perform the task and if you have not performed the exact task in the picture, please estimate your ability to perform the task. You do not have to perform the task exactly as shown in the picture. It is best to estimate your ability to complete the task even if it is completed in a different manner. There are 50 questions total. Please let me know if you have any questions as you continue.”

Clinical Integration of the MTAP (See additional details in the MTAP User Manual and Videos)

Step 1: During the initial administrative patient set-up (Set-up is optimal to be performed by front office aid), obtain a job description or complete the Workability Questionnaire (see below); enter job title and job demands in MTAP system. If using the Workability Questionnaire (for injured workers), obtain PDC level from question 4. The questionnaire should be a discussion with the client, as injured workers often do not answer accurately.

Step 2: The front office aid or provider administers the MTAP (7 to 10 minutes) in English or Spanish. See administrator script on previous page.

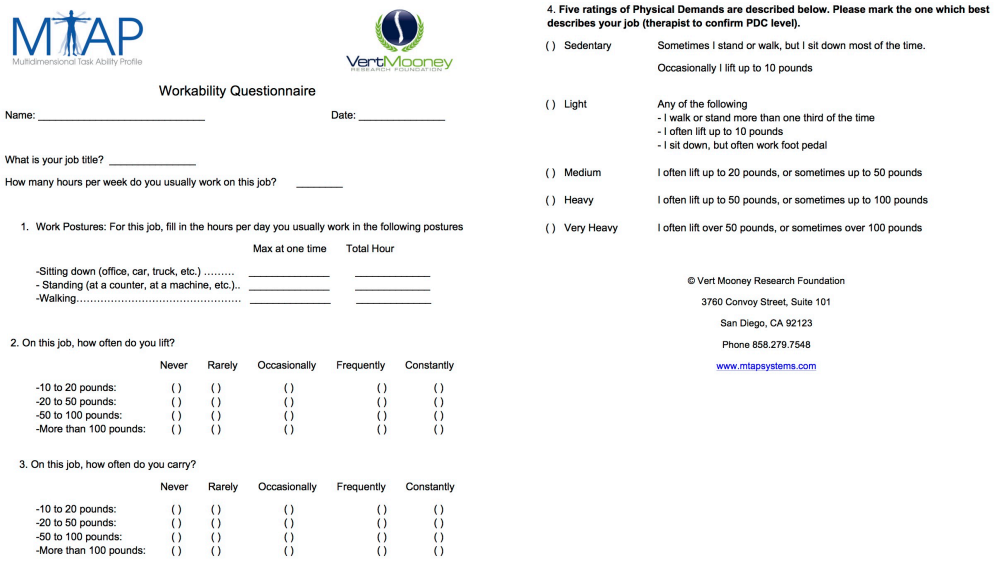
Step 3: The provider reviews and determines if there are Consistent or Inconsistent INFIT/ OUTFIT scores on the Health and Behavioral Report and also reviews the Workability Report for current PDC level, functional improvement. The ADLs in question can be reviewed with the patient on the Patient Report Card and work categories can be reviewed with the patient on Workability Report and Report Card. If the client is a Medicare Patient, utilize the Functional Assessment Report.

Step 4: The provider discusses with client and determines if current treatment strategy is working or if it needs to be modified for further functional improvement.

- Did the client make functional progress since baseline testing? Improvement percentage?
- As applicable, what is the injured worker's target job demand category (PDC level)?
- Is there a current match between the injured worker's required job demands and his/her current PDC level?
- Is the active physical treatment consistent and dose related (i.e., MET level appropriate) with the required job demands and target PDC level? Does the treatment plan include work simulation activities needed to improve functional capacity?
- Is there a plateau present? A plateau in progress may indicate that treatment effectiveness is ending or that a reassessment is indicated.

Step 5: Coaching and Education-The provider should discuss the findings with the client and provide coaching in home exercises, movement and functional modifications etc. The provider should give a copy of the MTAP Report (Workability Report or Report Card) to the patient to aid with rehabilitation motivation and coaching.

Step 6: Incorporate the findings and discussion into progress report. Upload MTAP reports to EMR/network portal.



MTAP
Multidimensional Task Ability Profile

VertMooney
RESEARCH FOUNDATION

Workability Questionnaire

Name: _____ Date: _____

What is your job title? _____

How many hours per week do you usually work on this job? _____

1. Work Postures: For this job, fill in the hours per day you usually work in the following postures

	Max at one time	Total Hour
-Sitting down (office, car, truck, etc.)	_____	_____
- Standing (at a counter, at a machine, etc.)..	_____	_____
-Walking.....	_____	_____

2. On this job, how often do you lift?

	Never	Rarely	Occasionally	Frequently	Constantly
-10 to 20 pounds:	( )	( )	( )	( )	( )
-20 to 50 pounds:	( )	( )	( )	( )	( )
-50 to 100 pounds:	( )	( )	( )	( )	( )
-More than 100 pounds:	( )	( )	( )	( )	( )

3. On this job, how often do you carry?

	Never	Rarely	Occasionally	Frequently	Constantly
-10 to 20 pounds:	( )	( )	( )	( )	( )
-20 to 50 pounds:	( )	( )	( )	( )	( )
-50 to 100 pounds:	( )	( )	( )	( )	( )
-More than 100 pounds:	( )	( )	( )	( )	( )

4. **Five ratings of Physical Demands are described below. Please mark the one which best describes your job (therapist to confirm PDC level).**

( ) Sedentary	Sometimes I stand or walk, but I sit down most of the time. Occasionally I lift up to 10 pounds
( ) Light	Any of the following - I walk or stand more than one third of the time - I often lift up to 10 pounds - I sit down, but often work foot pedal
( ) Medium	I often lift up to 20 pounds, or sometimes up to 50 pounds
( ) Heavy	I often lift up to 50 pounds, or sometimes up to 100 pounds
( ) Very Heavy	I often lift over 50 pounds, or sometimes over 100 pounds

3760 Convoy Street, Suite 101
San Diego, CA 92123
Phone 858.279.7548
www.mtapsystems.com

- Use Job Description or complete the Workability Questionnaire

- Obtain job demands PDC level from question 4. The questionnaire should be a discussion to clarify with the client because individuals often do not answer accurately. Enter job title and job demands in MTAP system.

LifeTEAM Health

Multidimensional Task Ability Profile
Workability Report

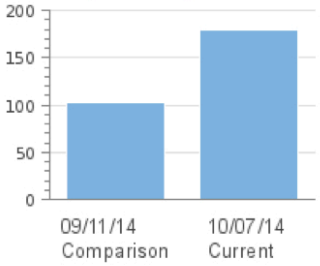
Darrell Bruga
January 19, 2015

Job Title and Work Demands

Your overall Physical Ability score is 179 on a scale of 0-200. This independent test demonstrates an improvement of 74% in physical functioning since September 2014.

Your current job title, Carpenter, requires physical demands in the **Heavy (50-100 lbs.)** work category according to the Physical Demands Characteristics (PDC) levels defined by the U.S. Department of Labor.

Overall Physical Ability



Physical Demand Characteristics of Work

[1] Current PDC Level. [2] Target PDC Level

Physical Demand Level	Occassional 0-33% of the workday	Frequent 34-66% of the workday	Constant 67-100% of the workday	Typical Energy Required
Sedentary	10 lbs.	Negligible	Negligible	1.5-2.1 METS
Light	20 lbs.	10 lbs.	Negligible	2.2-3.5 METS
Medium[1]	20 to 50 lbs.	10 to 25 lbs.	10 lbs.	3.6-6.3 METS
Heavy[2]	50 to 100 lbs.	25 to 50 lbs.	10 to 20 lbs.	6.4-7.5 METS
Very Heavy	Over 100 lbs.	Over 50 lbs.	Over 20 lbs	Over 7.5 METS

This injured worker is currently at the Medium PDC level and still needs to improve to the Heavy PDC Level

Workability

Based on today's MTAP testing you are able to meet the physical demands for jobs in the **Medium (20-50 lbs.) PDC** work category. Therefore you are below your occupational demands. The **Medium PDC** level is an improvement of 74% from September 2014. One of the primary rehabilitation goals will be to enable you to safely and dependably return to work or accommodate to modified or full duty activities. A home exercise plan to achieve your functional goals will be included.

Improvement Potential

You indicated that you have some restrictions with tasks such as those shown below. Let your provider know if these problems are not being adequately resolved, or if you have recently experienced difficulty with other tasks that you regularly perform at your work or home.

Lift 100-pound (45.4-kg) milk crate from the floor to a bench.

Carry 100-pound (45.4-kg) crate for 50 feet (15.2 m).

Please let us know how we can continue to assist you. Have a great week!

Use the MTAP and clinical findings to guide your discussion with the case manager and referring physician. Discuss workability level and return to work potential.

3840 Watt Ave • Sacramento, CA • 95821 • (800) 994-3220
www.lifeteamhealth.com

Provider Signature: _____

Always consider; do the clinical findings correlate?

Should the MTAP be utilized in combination with FCE testing?

The robust predictive ability of the MTAP allows it to be used in conjunction or in place of traditional objective performance measures that may be more time-consuming, impractical and expensive. Many FCEs possess performance tests that are routinely provided but do not help determine the disability reporting or return to work (RTW) conclusions. A self-report score indicating adequate ability in one or another FCE construct provides justification to not test that construct unless there is some other reason to test. Given the demonstrated linkages between the MTAP and the EPIC Lift Capacity test, it is now possible to check consistency of effort across platforms, using different measurement systems. Conversely, when the results of one test confirm the results of the other test, the results of both can be accepted with increased confidence.

For example, the real-time use of the MTAP by the patient in parallel with a functional capacity evaluation will identify mismatches. The FCE professional's resolution of the mismatch should sharpen the disability determination and improve intervention and patient compliance.

MTAP Workability report VS FCE summary sheet.

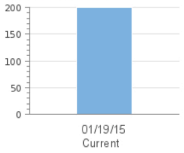
Multidimensional Task Ability Profile
Workability Report

John Doe
January 19, 2015

Job Title and Work Demands
Your overall Physical Ability score is 200 on a scale of 0-200.

Your current job title, U.S. Customs & Border Protection Officer, requires physical demands in the **Very Heavy (over 100 lbs.)** work category according to the Physical Demands Characteristics (PDC) levels defined by the U.S. Department of Labor.

Overall Physical Ability



Physical Demand Characteristics of Work [1] Current PDC Level. [2] Target PDC Level

Physical Demand Level	Occassional 0-33% of the workday	Frequent 34-66% of the workday	Constant 67-100% of the workday	Typical Energy Required
Sedentary	10 lbs.	Negligible	Negligible	1.5-2.1 METS
Light	20 lbs.	10 lbs.	Negligible	2.2-3.5 METS
Medium	20 to 50 lbs.	10 to 25 lbs.	10 lbs.	3.6-6.3 METS
Heavy	50 to 100 lbs.	25 to 50 lbs.	10 to 20 lbs.	6.4-7.5 METS
Very Heavy[1,2]	Over 100 lbs.	Over 50 lbs.	Over 20 lbs	Over 7.5 METS

Workability
Based on today's MTAP testing you are able to meet the physical demands for jobs in the **Very Heavy (over 100 lbs.) PDC** work category. Therefore you are equal to your occupational demands. One of the primary rehabilitation goals will be to enable you to safely and dependably return to work or accommodate to modified or full duty activities. A home exercise plan to achieve your functional goals will be included.

Please let us know how we can continue to assist you. Have a great week!

Provider Signature: _____

Spine and Sport
Functional Capacity Evaluation
Summary Page

Patient: John Doe **Date:** March 29, 2013 Age: 38 Weight: 215 lb. Height: 76"

Referral Source: Veterans Administration **Date of injury:** January 2007 **Claim#** XXXXX8157

Referring Provider Nguyen, Quinh-Giaol **MPI** [redacted] **Authorization#** 305049-4

Employer: U.S. Customs & Border Protection **Job Title:** U.S. Customs & Border Protection Officer

DIAGNOSIS: Degenerative disc disease, lumbar spine **Blood pressure:** 125/85mmHg

More than four hours of physical testing, report preparation, research, calculations and editing were performed in the completion of this Functional Capacity Evaluation.

The information contained in this report is intended to be used in conjunction with the physician's assessment of the patient when determining return to work status. Please call if you have any questions or need additional information regarding the Functional Hand Evaluation.

Subjective Complaints:	Usual Pain Severity: **0-1/10** Usual Pain Frequency: **Intermittent**	Worst Pain Severity: **9/10** Worst Pain Frequency: **Occasional**
Perceived Ability:	Multidimensional Task Ability Profile (MTAP): **200/200, Very Heavy Work**	
Waddell's Nonorganic Signs:	Total Score = **0/5** (Scores of 3 or more are significant for nonorganic physical signs)	
Reliability:	Tested **reliable** on all aspects of the FCE. Consistent global effort.	
Objective PDC:	**Very Heavy Work, up to 100 pounds**	
Pinch Strength:	**Excellent** bilaterally.	
Jamar Power Grip:	**Excellent** bilaterally	
Hand Dexterity:	**Average** bilaterally	
Functional Occupational Duty Simulation:	**Able to perform** all essential job duty simulation for U.S Customs & Border Protection	

Normative Data for EPIC Tests:
Lifting Capacity:
% Loss of Lift Capacity **0%**

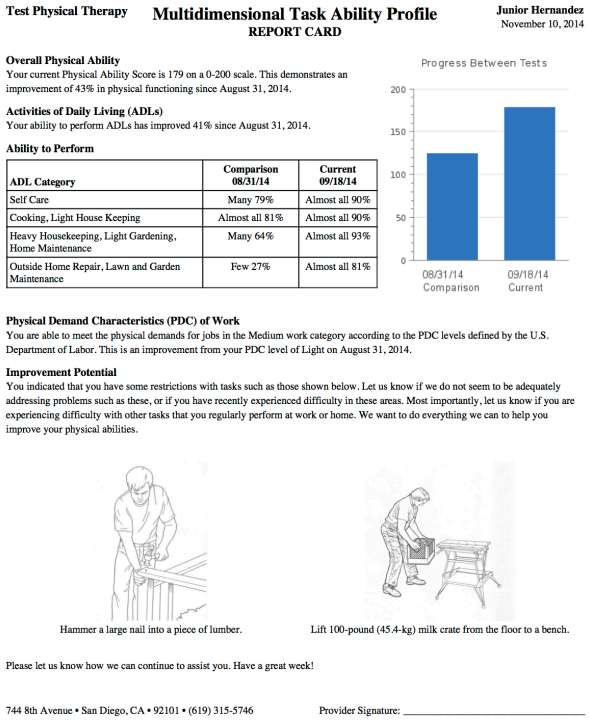
Note: The % Loss of Lift Capacity, Disability Category determinations, and Work Restrictions outlined in this report are based entirely on FCE objective measurements and do not take into consideration subjective factors of disability, or the primary treating physician's clinical opinions.

MTAP "Patient Report Card", corresponding ADLs and Typical Energy Required (METS) in each ADL Category

Overall physical function should be discussed with the client and noted in the progress report.

ADL category change should also be discussed and noted.

For example, the most significant or important category is the Self-Care category. If a client is unable to perform self-care activities the client may need assistance at home.



Test Physical Therapy

Multidimensional Task Ability Profile
REPORT CARD

Junior Hernandez
November 10, 2014

Overall Physical Ability
Your current Physical Ability Score is 179 on a 0-200 scale. This demonstrates an improvement of 43% in physical functioning since August 31, 2014.

Activities of Daily Living (ADLs)
Your ability to perform ADLs has improved 41% since August 31, 2014.

Ability to Perform

ADL Category	Comparison 08/31/14	Current 09/18/14
Self Care	Many 79%	Almost all 90%
Cooking, Light House Keeping	Almost all 81%	Almost all 90%
Heavy Housekeeping, Light Gardening, Home Maintenance	Many 64%	Almost all 93%
Outside Home Repair, Lawn and Garden Maintenance	Few 27%	Almost all 81%

Progress Between Tests
200
150
100
50
0
08/31/14 Comparison
09/18/14 Current

Physical Demand Characteristics (PDC) of Work
You are able to meet the physical demands for jobs in the Medium work category according to the PDC levels defined by the U.S. Department of Labor. This is an improvement from your PDC level of Light on August 31, 2014.

Improvement Potential
You indicated that you have some restrictions with tasks such as those shown below. Let us know if we do not seem to be adequately addressing problems such as these, or if you have recently experienced difficulty in these areas. Most importantly, let us know if you are experiencing difficulty with other tasks that you regularly perform at work or home. We want to do everything we can to help you improve your physical abilities.

Hammer a large nail into a piece of lumber.

Lift 100-pound (45.4-kg) milk crate from the floor to a bench.

Please let us know how we can continue to assist you. Have a great week!

744 8th Avenue • San Diego, CA • 92101 • (619) 315-5746

Provider Signature: _____

Standard ADLs categories and corresponding MET levels were calibrated and used in all MTAP ADLs categories.

ADL SELF CARE	HEAVY HOUSEKEEPING / LIGHT HOME MAINTENANCE
1.0-2.5 METS	*3.5-5.0 METS*
bathing or showering, sitting	bathing dog, large
dressing & undressing; standing or sitting	cleaning, house or cabin, general
getting ready for bed, in general	mopping floors
grooming (washing, brushing teeth)	mowing lawn, riding mower
having hair cut or shampooed by someone else	packing/unpacking boxes
low demand sexual activity	picking fruit off trees, picking fruits/vegetables
placing food on plate, cutting food, eating	planting seedlings, shrubs
sitting on toilet, cleaning self	playing active sports with child(ren)
opening containers & taking medication	raking leaves off lawn
talking and eating	trimming shrubs or bushes by hand
LIGHT HOUSEKEEPING	**HEAVY HOME MAINTENANCE**
1.5-4.0 METS	*4.5-6.0 METS*
bathing dog, small carpentry, outside	carpentry, outside
child care, seated (dressing, bathing, feeding)	carpentry, refinishing cabinets or furniture
cooking or food preparation	cleaning gutters
gathering clothes to pack, packing suitcase	clearing land, hauling branches
ironing clothes	digging, spading, filling garden, composting
laundry, fold or hang clothes	gardening with heavy power tools
making bed	gardening, general
packing/unpacking boxes, light	hanging storm windows
playing low demand sports with child(ren)	mowing lawn, general
putting away groceries, carrying packages	mowing lawn, walk, hand mower
serving food, setting table	mowing lawn, walk, power mower
knitting, sewing, or wrapping presents	painting, outside home
sweeping floor or sidewalk	painting, papering, plastering, scraping
vacuuming carpet	planting trees
washing dishes	trimming trees
watering lawn or garden, standing or walking	washing fence, painting fence
watering plants	weeding, cultivating garden

The MTAP is consistent with EBM guidelines and has established validity and reliability testing.

The MTAP meets the new recommendations for documentation of patient reported functional outcome measures (Medicare, Official Disability Guidelines (ODG), American College of Occupational and Environmental Medicine (ACOEM), and the American Medical Association (AMA) Guides to the Evaluation of Permanent Impairment, 5th and 6th editions).

Reliability and validity was established in J Occ Med, Mayer, et al., 2005. Subsequent studies followed with item response theory calibration (IRT) and Rasch analysis, J Occ Med, Matheson, et al., 2006. Validated to actual physical performance (FCE's), The Spine Journal, Vert Mooney, et al., 2010. Additional reliability, validation and cross-cultural adaptation to Spanish, Verna, et al., 2012. Several additional studies have been published with comparison to various outcome measures and FCEs, which are readily available on PUB Med: **http://www.ncbi.nlm.nih.gov/pubmed**.

Utilizing the MTAP with Medicare patients.

Insurance Payers are demanding that providers document functional improvement and outcomes. In fact, starting July 2013 Medicare claims for therapy services must include a functional status measure or they will be rejected (Outpatient Therapy of the Medicare Physician Fee Schedule Final Rule-CMS-1590FC). Historically, the approach has been paper and pen outcomes questionnaires. These questionnaires such as the SF-36 and Oswestry may be impractical for outpatient providers:

1) No printable reports; not billable
2) The need to manually calculate which is error prone
3) Does not support Medicare severity modifiers
4) Difficult and time consuming to score assessments; slows down practice flow
5) Not available or adapted to the Spanish language
6) None provide a simple report card given to the patient to stimulate dialogue between patient and care provider

In contrast the MTAP delivers a simple easy to use system that helps the provider meet today's practice demands by streamlining practice flow and documentation, improving accurate patient assessment and care, ultimately leading to increased provider reimbursement. The MTAP also has a specialized report to comply with Medicare Functional Limitation Reporting with G-code severity modifier selection. The MTAP is currently validated for English and Spanish speaking populations.

Billing the MTAP

If and how you bill for the MTAP depends on how you use it, your state's policies, and the provider who administered it, among other factors.

The Vert Mooney Foundation does not provide specific coding or legal advice. Healthcare providers who seek reimbursement for use of the MTAP test should follow the direction of coding and legal experts familiar with the policies of the specific third party from whom they seek reimbursement. It is the health care practitioners responsibility to document medical necessity of services rendered. The Vert Mooney Foundation provides the medical necessity general guidance, access to the MTAP, reporting and documentation related to measured function.

If billing the MTAP, the provider should document in the chart that they went over ADLs and MTAP findings including noting the job demands and target PDC level. Moreover, the deficient ADLs in question should be discussed with the patient in order to review how tasks need to be modified to complete ADLs. In addition, a home exercise program

and handout should be provided and documented in the patient's record in order to achieve work and home ADL functional goals.

How do MTAP funds support the Vert Mooney Foundation?

The Vert Mooney Foundation membership donation is primarily used to support continued research and development of the MTAP, musculoskeletal related research and costs for scientific publications and presentations.

MTAP Validity, Reliability, EBM and Publications

Peer-Reviewed Manuscripts

Verna JL, Matheson LN, Gobbi, Lane J, Bruga DS, Gherscovici E, Mayer JM. Are Self-Reported Measures Becoming More Objective for Determination of Functional and Work Capacity. Sphera Medical Journal, 2015 in Press.

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Mooney V, Matheson LN, Verna JL, Leggett S, Dreisinger T, Mayer J. Performance-integrated self-report measurement of physical ability. The Spine Journal 10 (2010) 433–440.

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Mayer JM, Mooney V, Matheson LN, Erasala GN, Verna JL, Udermann BE, Leggett S. Continuous low-level heat wrap therapy for the prevention and treatment of delayed onset muscle soreness of the low back muscles *Archives of Physical Medicine and Rehabilitation*, 2006;10.

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Bibliography - Spinal Function Sort and Hand Function Sort - Pencil and paper instruments from which the MTAP was derived

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Matheson LN, Mooney V, Holmes D, Leggett S, Grant J, Negri S, Holmes B. A test to measure lift capacity of physically impaired adults: Part II. Reactivity in a patient sample. *Spine*, 1995;20(19):2130-4.

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