

# Symptom Magnification

## Ensuring Accurate Determination of Abilities and Return to Work Readiness

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### ABSTRACT

*Symptom Magnification testing has been described as “a systematic process of measuring and developing an individual’s capacity to dependably sustain performance in response to broadly defined work demands” (Matheson, 1986). As clinicians we are aware of the influence that symptom magnification can have on the client’s perception of his or her job readiness. Therefore, in order to thoroughly assess an individual’s abilities in relation to the field of work, it is important to gather both objective and subjective findings during physical effort testing.*

Symptom Magnification refers to the conscious or sub-conscious tendency of an individual to under-rate their abilities and/or overstate his or her limitations. Symptom magnification is measured through assessment of observed functional performance, as compared to a client’s subjective reports of the limitations caused by his or her symptoms. It does not imply intent. It is extremely difficult for the clinician, case manager and employer to make educated decisions based on subjective and potentially inaccurate accounts of the individual’s abilities. There are a number of tests, protocols and general observations that can be used to objectively qualify abilities of an individual. A multi-faceted approach, ideally implementing a combination of: isometric, dynamic, behavioral and/or cardiovascular measures to help gauge a client’s level of effort, is required to provide a clear picture of actual abilities and functional limitations.

**“52% of all claimants entering into rehab are considered to be symptom magnifiers. BUT, Studies indicate that only between 5-7% of the non-organic population are malingering.”**

*Posttraumatic Stress Disorder in Litigation 1995*

The differences in the above percentages are significant and again display the importance of an objective evaluation for abilities determination. Not all clients entering the rehabilitation cycle are delinquent; they may have a certain level of hesitation, anxiety, fear or misunderstanding of the tests. Also, if it hurt the last time they raised their arm, they simply won’t raise it that high again for fear of the pain. They may very well have more ability than they are aware of, but fear of pain has prevented them moving past this level.



Pain itself is not a disability, but if it is a consistent limiter, then it is an impairment to returning to work. The issue is whether or not it was consistent.

In either case, testing to qualify their true effort must be completed as part of a Functional Requirement Evaluation (FRE). FRE is an assessment process that translates findings of physical, physiological and functional measures into performance potential for activities of daily living and/or work tasks.

The ideal situation is to combine the subjective with the occupational and the computerized analysis to allow for a full and complete battery of tests.

### There are three general types of symptom amplification:

1. Refugee/somatoform disorder - symptoms provide an escape from apparently unresolvable conflict or life situations, or where the individual has a history of unreasonable expectations of him or herself and also from significant others.
2. Chronic factitious disorder/identified client - symptom behavior maintains the client role. Goals focus primarily on psychological or physical survival.
3. Game player/malingerer - where symptom behavior provides an opportunity for positive gain. Goals are usually extravagant, yet poorly thought out. Identification procedure for determining symptom amplification involves maximal voluntary testing, occupational behavior observations, self-perception subjective analysis, along with activity sorts, and a general history of the individual, regarding daily routines, medication use, response to previous and current treatment and the general attitude of the individual. The small percentage of claimants, who may be purposely delinquent, usually have motivations contributing to symptom amplification that include: a feeling that the tests should authenticate or legitimize pain and dependency; expectation the symptoms are a direct reflection of financial gain; employer punishment; means of gratifying a long-standing and entrenched sense of entitlement; or a basic yearning for security.

### How does symptom amplification actually develop?

After the injury, the client begins to avoid activities that cause pain or discomfort. Then, pain avoidance is reinforced by the doctor, co-workers and family. Clients stop pushing themselves and become further deconditioned; a distorted self-perception of their capabilities develops; a consistent avoidance of activities clients THINK will cause them pain; and, then, of course, further deconditioning arises.

***This is a serious issue in the field of Workers Compensation, where patients on compensation receive 2 times more treatment than those who are not, yet they show 33% less impairment and they also endure 4 times longer recovery periods.***

### There are four general testing procedures to determine symptom amplification and its effect in measuring performance:

1. Subjective Questionnaires. Questionnaires, such as the Oswestry Low Back and Neck (Vernon Mior) qualify the individual’s perceived capabilities into various categories. Pain scales, such as the McGill Scale, display symptom perceived characteristics. In this test, a body illustration painted entirely by the individual depicting pain involvement would be, in most cases, representative of symptom amplification. It should be noted that during initial examination, questionnaire and testing protocols, such as the Waddell Signs (depicts inappropriate descriptions of symptoms and inappropriate responses to the physical examination) would provide value in pre-qualifying the client’s perceived abilities before the Functional Requirements Evaluation (FRE).

2. Functional capacity or requirement evaluations qualify a number of cross-checks for validity and reliability of measurements during the physical testing process.

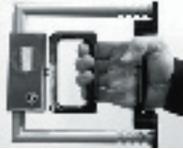


It is important to note that, when entering into a legal situation, the data and results should be Peer Reviewed norms and not simply user based data.

Tests performed during a Functional Evaluation to determine TRUE abilities may include:

- (a) Pinch grip. Aside from co-efficient of variation, the key grip, tip grip and palmer grip should display results such that the tip should never be greater than the palmer. The key, in most cases, is the largest value. If the results are not as such, then again it indicates sub-maximal performance.
- (b) MVE (Maximal Voluntary Effort) hand grip. This cross-check assumes that stale position 2, 3 or 4 will be the greatest. This results in a bell curve if abilities are deemed accurate.

- (c) Rapid exchange. This test allows for a 0.8 second grip time on each hand during a sequence of six trials. The end average force output should be 15 per cent less to equal that of the standard position two hand grip to display true effort.



- (d) Horizontal validity. After performing standard National Institute of Occupational Safety and Health (NIOSH) static tests, this test moves the client into a harder task format by backing him/her away from the static handle. The end result of such tests should be close to 33% less in value than that of the NIOSH tests to display proper MVE. This is completed by placing the client in a position where they are biomechanically at a physical disadvantage. (Note: Static time delayed isometric tests do not provide a direct comparison with real-to-life/work activities. However, they are value-added because they are performed in a very controlled environment, unlike occupational tasks, which have a great deal of variability in client movement patterns.)

- (e) Cyclic heart rate monitoring through strength of an individual during PILE or similar dynamic lift tests. The primary similarity of all lifting tests are the checks for validity. The first is standard stance - monitoring client horizontal and vertical movements during increased weight loads - and the second, the most important as it is hidden from the client, is the heart rate response. As the cumulative workload is increased, the heart rate should in turn increase. During rest times, the heart rate should fall. This is a direct measure of effort output.

- (f) Straight leg check. The American Medical Association has developed a comparison of straight leg raises to the range of motion of the Lumbar area to qualify validity of effort during trials. If the tightest straight leg raise for each corresponding raise exceeds the sum of sacral flexion and extension by more than 10 degrees, then the lumbar range of motion tests are considered to be invalid.

- (g) Use of dual inclinometers to perform total spine range of motion, allows the clinician to segment out the portion of the spine displaying movement (dual inclinometers effectively eliminate any error due to client posture changes during the testing procedure.) The AMA defines reliability based on the total spine range of motion measure guideline; need to have three consecutive trials within a maximum of six attempts.

- (h) CV or coefficient of variation – the measure of the differences between trials, needs to be below 12% to be deemed an accurate representation of reliable performance.

- (i) Distraction Testing such as performing above shoulder reaching while doing a handling or dexterity task could be done to correlate with previous goniometer measures of shoulder flexion measures.

- (j) Test/Retest Trials are important and can be completed pre and post evaluation to again document actual versus perceived abilities.

- (k) Observations on the individual's performance during the test trials. Items such as proper muscle recruitment during work activities to stance characteristics, grimacing, guarding (cane-assisted movement), bracing, sighing; rubbing (both active and grabbing/holding patterns) must be monitored to create an entire picture of the individual's effort.

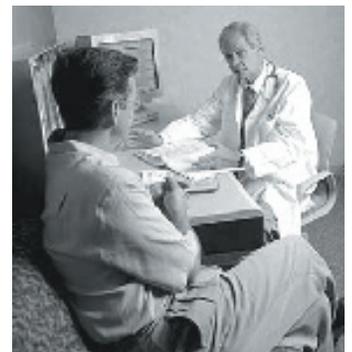
3. Simulated Work Task testing; while performing a fully dynamic activity the client may be more apt to forget their perceived limitations. Perhaps, in a simulated work activity, he/she lifts an object of a heavier load than in FRE testing. This should be seen in the tests through reports of inconsistency between trials or a sub-maximal effort due to a minimal heart rate increase.

4. Checks and balances; reports of pain and observed pain behaviors should also be specific to the type of task being performed and correlate with the injury. An individual with an upper extremity injury should not be expected to have reports of pain when performing lower extremity tasks. Monitoring the client's dominance throughout the exam and task comparison to their diagnosis can be very eye opening.

*"The role of the evaluator and the clinician is not necessarily to "label" the claimant as a malinger or faker, but rather to weed out what the true abilities are. This is what we need in order to make an educated return to work decision."*

The term validity is often used in the field of vocational rehabilitation as an umbrella term to evaluate a client's level of effort, and subsequently the end value of attained test results. For results to be truly valid at representing a client's maximal abilities, it is critical that the client apply full effort when tested. Different systems apply different methods of evaluating a client's level of effort. As such, they rely on varying techniques to determine the validity of test results. No one test is the determination of a valid effort – it is the compilation of all testing, observations and so forth that provide the clinician with the final abilities determination.

**Carefrontation** is a term I often use during the course of any evaluation to approach the issue of effort with a client prior to or at the beginning of functional testing. A sit down discussion on why this testing is so important to them and to their employer to determine a safe and sustained ability measure usually works in helping to direct them the right way during the exam. Remember it is relatively easy to determine whether or not the client is providing good effort during static or controlled environmental testing,



but as you introduce more variables such as walking, carrying involving loading on the joints, balance, coordination etc it becomes more difficult. It is for this reason you want to set the ground rules at the beginning while you still have a good visual read on the client's participation level.

**SUMMARY**

**In conclusion, the more checks and balances performed during a functional exam, the more value-added the results. There are two key factors behind the rising cost of workers' comp claims; costs (medical, direct and indirect) and loss time. Wage-replacement costs rose roughly 6.6% annually from 1996 through 2001, according to NCCI. And medical costs jumped 11.5% in 2001, after a steady climb of about 7.5% from 1996 through 2000. The costs and loss time are directly affected by expeditiously returning an employee back to the workforce. By cross-checking between the different testing environments, the test-giver can rest assured the outcome data will be the most legally sound and this can directly affect the timely return to work. For the delinquent clients, the symptom amplification checks will help in determining claim direction or termination. For those whose complaints are legitimate, the checks should have a positive outcome by motivating them to the higher standards they are capable of and hopefully allow for vocational placement.**

*The information noted above is a summary of one of the components of Fit2WRK by USPh. This integrated model is available through USPh in close to 400 facilities and 44 states nationally. For additional information on how the Fit2WRK Model could help your organization, visit; [www.Fit2WRK.com](http://www.Fit2WRK.com) or call 1-877-Fit-2WRK.*

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