



FUNCTIONAL CAPACITY (FCE) AND FUNCTIONAL REQUIREMENT (FRE) EVALUATION PROCESS REVIEW

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The following is to be used as a guide only as every evaluation is different based upon the individual needs of the client, however, it will bring focus to the standardized test battery required during each evaluation and also the decision tree for addition of other testing activities. It is integral to document movement patterns including postures during the exam and so a digital camera is a necessity for proper documentation and support for your findings.

A STANDARD FLOW OF THE EVALUATION

CLIENT INTERVIEW

While sitting in reception – have them complete a Vernon Moir or Oswestry and a Pain Illustration. Also verify job demands on record or get them to populate a fillable form or verify a Onet online doc. Time them and also view for any discomfort during sitting. Also have them sign off on a photo release form. Have them come back to the testing area – view gait and balance and any obvious visual guarding or signs of discomfort especially towards injured body area. Sit down with them and verify form content including going through the incident of injury on record to make sure you have everything in order for the report. Anytime the individual is sitting or standing make a mental note or write it down – posture tolerance is an important component of the end conclusions.

Take a picture of the face of the client (to confirm it is the correct person being tested) and also the injured area if there is visual signs of burns/scarring etc.)

GENERAL RANGE OF MOTION – DIGITAL PIC OPPORTUNITY

Before I start testing I always have them go through a general range of motion with NO measurement tools on them and take pics of max ranges as they complete them. Lumbar flexion and extension, injured joint movement ranges and ability to get in a squat position and just to bend over and reach for the floor.

TESTING BEGINS

COUPLING

Before we have anyone lift anything we need to ensure they can couple to it and not drop it – so I do the hand and pinch grip tests first – the other reason is that the pinch grip ratios, rapid exchange, MMVE and repeated second position grip provide me with an immediate view of whether or not the individual is cooperating and providing consistent effort BEFORE we start introducing more dynamic tasks.

1. Hand Grip Position 2 - L and R
2. Hand Grp – position 1 to 5 – MMVE (Modified Maximal Effort Validity Evaluation)
3. Rapid Exchange Grip Position 2
4. Pinch Grip – Key, Tip, Palmar

COGNITIVE FLEXIBILITY & DEXTERITY

To determine dexterity for both fine and gross handling we use items like the Minnesota Rate of Manipulation or Purdue Pegboard (both of these tests allow for a comparison with Methods Time Measurement Analysis allowing for an extrapolation to work day tolerance.

5. Dexterity Test in seated position.

**If a low back injury then I often will place the dexterity test at floor or ankle level and have them bend over to complete a quick version of it – I don't use the test results but I do take pictures of their posture during the test.*

RANGE OF MOTION MEASURES

Now that we know they can couple to an object we need to ensure they can get down to it and bring the object to its final resting position.

6. Lumbar ROM Flexion and Extension and Lateral L / R – up to six trials – three within 5 degrees or 10% of each other with at least three in a consecutive series.
7. Cervical or Thoracic only if required.
8. Affected joint full range workup. If shoulder, elbow or wrist then do all three. (Upper Extremity Overview), If knee or ankle then do both as well to provide a view of the Lower Extremity.

STATIC STRENGTH

So now we know they can get down to the object and that they can couple to it – we now need to know if they can exert a force while in that position to institute a dynamic action lift. To simulate this we utilize static lifting (this is not an accurate measure of work activity, but is a great precursor to dynamic lifting as a safety measure and also is a good consistency cross check for symptom magnification). 50% of the value lifted in Static lifting is seen as a safe start for dynamic lifting.

9. Static Low lift (Leg Lift)
10. Static Mid Lift
11. Static High Lift

DYNAMIC LIFTING ABILITY

First you need to verify the lifting requirements of the job so as to not over or under test. You need to know the range of lifting, the weight load and the frequency of the lift (repetition) as Occasional (up to 1/3 of the workday or around one lift per five minutes) or Frequent (up to 2/3 of the workday or up to 4 lifts per minute), The end result may be a mixed version of both in the different ranges but you need to know this as the testing process is different for both.

12. Dynamic Low Lift (Occasional or Frequent)
13. Dynamic Mid Lift (Occasional or Frequent)
14. Dynamic High Lift (Occasional or Frequent)
15. Dynamic Overhead Lift (Occasional or Frequent)

BALANCE

16. Floor level (tape on floor – use MTM as guide)
17. Raised (2" x 4" or similar) *Only if work required

WALKING (Distance determined by JDA)

18. Walk on circuit – repeated task – again digital pictures are good to have

CARRY TASKS

19. Bilateral (Crate – with or without handles or box or two buckets) MTM and JDA as guidance
20. Unilateral (Single handed bucket lift based on JDA or MTM)

PUSH / PULL CART TASKS

21. Push/Pull Task – based on JDA and MTM
 - Using a standard wheeled cart
 - Using a flat sled
 - Using a two wheeled wheeler lift

STAIR

22. Standard staircase – monitor number of stairs up and down and if railing used for balance

LADDER (STRAIGHT OR ANGLED)

23. Ladder climb – if angled then no more than a few steps up to document hand hold and leg use (angled is primarily lower extremity initiated) If straight and can be tested then again only a few feet of climbing up (straight ladders utilize more upper extremity strength).

ADDITIONAL OCCUPATIONAL TASKS

KNEELING

CRAWLING

EXTENDED REACH WITH WEIGHT (Follow JDA weight guidance & graduate with repetition – use MTM if available)

PICK AND PLACE ACTIVITIES

SITTING TOLERANCE (Already completed during the course of the evaluation)

STANDING TOLERANCE (Already completed during the course of the evaluation)

SIMULATED WORK FUNCTIONS

(Use PPE during activities if possible due to restricted movement)

RESTRICTED ACCESS AREA MOVEMENT SIMULATED

COMPLEX LIFT, CARRY TWIST SEQUENCE

ESSENTIAL DUTY REVIEW (EXAMPLES)

CARRY UP/DOWN STAIRS WITH WEIGHT

SWEEPING

SHOVELING

RAKING

PAINTING

CONSISTENCY CROSSCHECKS

- Hand Grip coefficient of variation below 15%
- Hand Grip MMVE bell curve
- Hand Grip position 2 to second position 2 comparison
- Pinch Grip coefficient of variation below 15%
- Pinch Grip Key/Tip/Palmar ratio
- Static Lift Horizontal Validity if completed
- Dynamic Lift heart rate increase
- Static to Dynamic comparison (50% value of Static to Dynamic comparison)
- Range of Motion Spine (3 consecutive trials between 5 degrees or 10% of each other – 6 trials max)
- Dominant Side Monitoring
- Left / Right Side comparison consistency
- Consistency with diagnosis
- Facial grimacing or discomfort when affected area utilized in tasks
- Non-injured side favoring
- Verbal moaning or signs of discomfort
- Slow guarded movements
- Limping / shifting
- Whitening of knuckles during hand or pinch static strength tests
- Inappropriate body mechanics
- Proper muscle recruitment
- Rigid posture
- Holding or supporting affected area