

## Bledsoe OT Outline

December 7<sup>th</sup> 2020

## Functional Capacity Evaluations

### Basics:

Who can / should do them? (discuss qualifications and insurance inconsistencies)

Physical therapists, Occupational therapists, Athletic Trainers, Others

Who should and should not do them

Billing for FCE (discuss CPT codes)

Typical FCE is billed at \$63.85/15 minutes including report preparation

### 10 Components of well designed FCEs

#### 1. Informed consent (examples of bad ones)

- a. Informed consent is a process for getting permission before conducting a healthcare intervention on a person, or for disclosing personal information. A health care provider may ask a patient to consent to receive therapy before providing it.

#### 2. Patient intake interview

#### 3. Self report Questionnaires (Ransford pain drawing, Oswestry disability questionnaire, McGill Pain Questionnaire, etc.)

#### 4. Musculoskeletal Assessment (range of motion, muscle strength, special / provocative tests)

#### 5. Endurance / Fatigue Cardiovascular testing (sub maximal cardiovascular testing, non exercise formula testing, Graded exercise testing)

#### 6. Positional tolerance (squatting, kneeling, etc.)

#### 7. Grip / coordination and dexterity (Jamar hand dynamometer, standardized coordination tests)

#### 8. Mobility (walking, climbing, transitioning from floor to stand, kneel to stand)

#### 9. Lifting (isometric, isotonic)

#### 10. Consistency check (validity type index)

### Steps to interpret FCEs

1. Who did it?
2. What is the result or outcome?  
*Sedentary / Light / Medium / Heavy / Very Heavy*
3. Validity claims (define validity and discuss claims of validity)
4. Examine FCE for Redflags
  - a. Extrapolations
  - b. Misuse of Waddell signs
  - c. Misuse of pain scale (Borg)
  - d. Make extreme claims
    - i. "...patient demonstrated the ability to safely perform an 8-hour workday"
    - ii. "...patient tested at frequent lifting with 20 lbs"
    - iii. "...patient demonstrated the ability to walk constantly at work"
    - iv. "...patient tested at frequent stairclimbing"

**Commercially available or Best practice model?** (discuss benefits and limitations of a commercially sold and designed FCE or adapting various methods into one's own FCE)

## Assessing / Evaluating Pain

- MPQ, Borg CR scale, Quality of movement

### Common Questions:

- What are the Waddell signs and how they are misused?
- Use and abuse of written self report questionnaires
- Heart rate as a predictor of effort
- Blood pressure as a predictor of pain
- Use of the Dictionary of Occupational Titles
- Issues with depositions and report sharing
- Confounders:  
*Vertigo, Headaches*

### FCE Glossary:

**Capacity.** The highest probable level of functioning of an individual in a given domain at a given moment.

**Carrying.** Transporting an object, usually holding it in the hands or arms or on the shoulder.

**Climbing.** Ascending or descending ladders, stairs, scaffolding, ramps, poles, and the like, using feet and legs or hands and arms. Body agility is emphasized.

**Constant activity.** The activity or condition exists more than 2/3 of the time, or more than 5 ¼ hours in an 8 hour work day, or more than 62 repetitions per hour, or more than 500 repetitions in an 8 hour work day.

**Content validity.** Demonstrated by data showing that the content of a selection procedure is representative of important aspects of performance on the job.

**Construct validity.** Demonstrated by data showing that the selection procedure measures the degree to which candidates have identifiable characteristics which have been determined to be important for successful job performance.

**Criterion-related validity.** Demonstrated by empirical data showing that the selection procedure is predictive of or significantly correlated with important elements of work behavior.

**Crouching.** Bending body downward and forward by bending legs and spine. Same as Squatting.

**Disability.** An umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).

**Evaluation.** A dynamic process in which the physical therapist and/or occupational therapist makes clinical judgments based on data gathered during the examination.

**Frequent activity.** The activity or condition exists more than 1/3 and up to 2/3 of the time, or more than 2 ½ hours up to 5 ¼ hours in an 8 hour work day, or more than 13 and up to 62 repetitions per hour, or more than 100 and up to 500 repetitions in an 8 hour work day.

**Functional capacity evaluation (FCE).** A comprehensive performance-based medical assessment of an individual's physical and/or cognitive abilities to safely participate in work and other major life activities. FCEs are designed, administered, and interpreted by Examiners.

**Heavy work.** Exerting 51 to 100 pounds of force occasionally, or 26 to 50 pounds of force frequently, or 11 to 20 pounds of force constantly to move objects.

**Impairment.** A significant deviation, loss, or loss of use of any body structure or function in an individual with a health condition, disorder, or disease.

**Kinesiophobia.** A term that describe people's fear of pain due to movement, a factor that hinders rehabilitation and prolongs disability and pain.

**Light work.** Exerting up to 20 pounds of force occasionally, or up to 10 pounds of force frequently, or a negligible amount of force constantly to move objects. A job should be rated Light work when it requires: (1). Walking or standing to a significant degree; or (2). Sitting most of the time but entails pushing or pulling of arm or leg controls; or (3). Working at a production rate pace entailing constant pushing or pulling of materials even though the weight of those materials is negligible. SSR 83-10 further defines the full range of Light work as requiring 6 or more hours of intermittent standing or walking in an 8-hour workday. Sitting may be required only intermittently and occasionally.

**Malingering.** The intentional production of false or grossly exaggerated physical or psychological symptoms motivated by external incentives. The motive for feigning a disorder may be to obtain financial compensation, drugs, avoid work, lessen a criminal sentence, escape incarceration, or to gain sympathy. The scope of a diagnosis of malingering is reserved to psychiatrists or qualified psychologists based on formal psychological testing.

**Maximum medical improvement.** The point at which a patient's medical condition has stabilized and is unlikely to change (improve or worsen) substantially in the next year, with or without treatment as determined by a physician.

**Medium work.** Exerting 21 to 50 pounds of force occasionally, or 11 to 25 pounds of force frequently, or greater than negligible up to 10 pounds of force constantly to move objects.

**Non-repetitive activity.** Performing the same task(s) less than 30 repetitions per hour, or less than 240 repetitions in an 8 hour work day. Use of keyboard less than 4 hours per day.

**Occasional activity.** The activity or condition exists up to 1/3 of the time, or up to 2 ½ hours in an 8 hour work day, or up to 12 repetitions per hour, or up to 100 repetitions in an 8 hour work day.

**Pain behavior.** Verbal and/or nonverbal manifestations of discomfort, and perhaps distress and suffering. The behavior or behaviors may be audible complaints – actions such as a grimace or other facial expression, abnormal posture, guarding, or rubbing a body part, a limp, or use of a walking aid, brace or other device – or inaction such as activity avoidance, even bedrest. Pain behaviors reflect the way persons think, feel, and act in response to their discomfort, and the way they communicate their symptoms to others.

**Physical demands.** The physical requirements made on the worker by the specific job-worker situation. There are 26 physical demands: 1) Standing; 2) Walking; 3) Sitting; 4) Lifting; 5) Carrying; 6) Pushing; 7) Pulling; 8) Climbing; 9) Balancing; 10) Stooping; 11) Kneeling; 12) Squatting (Crouching); 13) Crawling; 14) Reaching; 15) Handling; 16) Fingering; 17) Feeling; 18) Talking; 19) Hearing; 20) Tasting/Smelling; 21) Near Acuity; 22) Far Acuity; 23) Depth Perception; 24) Accommodation; 25) Color Vision; and 26) Field of Vision.

**Psychophysical limitation.** Termination of a particular functional test by the individual being tested based on established subjective criteria including but not limited to the individual reporting the inability to safely perform or complete the activity. The Functional capacity examiner may also choose to terminate a particular functional test based on an individual's uncooperative behaviors compromising safety.

**Repetitive activity.** Performing the same task(s) 30 or more repetitions per hour, or 240 or more repetitions in an 8 hour work day. Use of a keyboard 4 or more hours per day.

**Residual functional capacity.** Represents what an individual can still do despite functional limitations resulting from a medically determinable impairment(s) and impairment-related symptoms.

**Sedentary work.** Exerting up to 10 pounds of force occasionally or a negligible amount of force frequently to lift, carry, push, pull, or otherwise move objects, including the human body. Sedentary work involves sitting most of the time, but may involve walking or standing for brief periods of time. Jobs are Sedentary if walking and standing are required only occasionally and all other Sedentary criteria are met. SSR 83-10 further defines Sedentary work as requiring about 6 hours of sitting and no more than 2 hours of standing or walking in an 8-hour workday.

**Tolerance.** A psychophysical concept that refers to the level of work or activity an individual feels able to endure at a given time. Tolerance is impacted by an individual's symptoms such as pain and fatigue.

**Very heavy work.** Exerting in excess of 100 pounds of force occasionally, or in excess of 50 pounds of force frequently, or in excess of 20 pounds of force constantly to move objects.

<b>Table 1</b>		<b>Physical Demand Reference Data<sup>1,2,3,4</sup></b>
<b>Sedentary (1.5-2.1 METS)</b>		Exerting up to 10 pounds force occasionally or a negligible amount of force frequently. Sitting is required frequently to constantly and the work may involve brief periods of standing or walking occasionally.
<b>Light (2.2-3.5 METS)</b>		Exerting up to 20 pounds of force occasionally, or up to 10 pounds of force frequently, or a negligible amount of force constantly to move objects. Standing or walking are usually required frequently to constantly and the work may involve brief periods of sitting occasionally. In a few occupations, sitting may be required frequently to constantly while operating arm or leg controls. Light work may also be production pace work requiring negligible force.
<b>Medium (3.6-6.3 METS)</b>		Exerting 21-50 pounds of force occasionally, or 11-25 pounds of force frequently, or greater than negligible up to 10 pounds of force constantly to move objects. Standing or walking are usually required frequently to constantly and the work may involve brief periods of sitting occasionally.
<b>Heavy (6.3-7.5 METS)</b>		Exerting 51-100 pounds of force occasionally, or 26 to 50 pounds of force frequently, or 11 to 20 pounds of force constantly to move objects. Standing or walking are usually required frequently to constantly and the work may involve brief periods of sitting occasionally.
<b>Very Heavy (&gt; 7.5 METS)</b>		Exerting in excess of 100 pounds of force occasionally, or in excess of 50 pounds of force frequently, or in excess of 20 pounds of force constantly to move objects. Standing or walking are usually required frequently to constantly and the work may involve brief periods of sitting occasionally.
<b>(N) Not Present</b>		Activity or condition does not exist.
<b>(O) Occasional</b>		Activity or condition exists up to 1/3 of the time; up to 2 ½ hours day; 1-12 repetitions per hour; or 1-100 repetitions per day.
<b>(F) Frequent</b>		Activity or condition exists more than 1/3 up to 2/3 of the time; more than 2 ½ hours day up to 5 ¼ hours per day; 13-62 repetitions per hour; or 101-500 repetitions per day.
<b>(C) Constant</b>		Activity or condition exists more than 2/3 of the time; more than 5 ¼ hours per day; 63 or more repetitions per hour; or more than 500 repetitions per day.
<b>Non-repetitive</b>		Activity is performed less than 30 times per hour or less than 240 times per day. Use of keyboard less than 4 hours per day.
<b>Sitting</b>		Remaining in a seated position.
<b>Standing</b>		Remaining on one's feet in an upright position at a workstation without moving about.
<b>Walking</b>		Moving about on foot.
<b>Lifting</b>		Raising or lowering an object from one level to another (includes upward pulling).
<b>Carrying</b>		Transporting an object, usually holding it in the hands or arms or on the shoulder.
<b>Pushing</b>		Exerting force upon an object so that the object moves away from the force (includes slapping, striking, kicking, and treadle actions).
<b>Pulling</b>		Exerting force upon an object so that the object moves toward the force (includes jerking).
<b>CL</b>	<b>Climbing</b>	Ascending or descending ladders, stairs, scaffolding, ramps, poles, and the like, using feet and legs or hands and arms. Body agility is emphasized.
<b>BA</b>	<b>Balancing</b>	Maintaining body equilibrium to prevent falling when walking, standing, crouching, or running on narrow, slippery, or erratically moving surfaces; or maintaining body equilibrium when performing gymnastic feats.
<b>ST</b>	<b>Stooping</b>	Bending body downward and forward by bending spine at the waist, requiring full use of the lower extremities and back muscles.
<b>KN</b>	<b>Kneeling</b>	Bending legs at knees to come to rest on knee or knees.
<b>CR</b>	<b>Crouching</b>	Bending body downward and forward by bending legs and spine.
<b>CW</b>	<b>Crawling</b>	Moving about on hands and knees or hands and feet.
<b>RE</b>	<b>Reaching</b>	Extending hand(s) and arm(s) in any direction.
<b>HA</b>	<b>Handling</b>	Seizing, holding, grasping, turning, or otherwise working with hand or hands. Fingers are involved only to the extent that they are an extension of the hand, such as to turn a switch or shift automobile gears.
<b>FI</b>	<b>Fingering</b>	Picking, pinching, or otherwise working primarily with fingers rather than with the whole hand or arm as in handling.

## References:

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