



Functional Capacity Evaluation Elements

A standard FCE evaluation will need to include the following 6 elements:

1. Worker Information

- Worker subjective pain complaints
- Medications - related to injury or would impact test, was scheduled medication taken?
- Assistive devices used during evaluation
- Worker's report of functional ability in self-care, chores, yard work, driving, shopping, recreation, exercise
- Worker's self-reported goal(s)
- Height/Weight
- Blood Pressure, Oxygen saturation, Pulse

2. Musculoskeletal Screen

As determined by the evaluator. May include these areas: Balance, Posture, Range of Motion (Passive/Active), Gait Abnormalities, Sensation, Extremity Edema Measurements (Pre/Post), Strength UE/LE, Other Clinical Findings

3. Capacity Testing – Positional, Material Handling, Non-Material Handling

Standard categories:

- Sit
- Stand
- Walk
- Climb Ladders
- Climb Stairs
- Twist Neck
- Twist Truck
- Bend/Stoop
- Kneel
- Squat Partial/Full
- Crawl
- Reach forward
- Reach waist to shoulder
- Work above shoulders

- Grasp (forceful)
- Handle/Grasp
- Fine Manipulation
- Lifting Floor to Waist
- Lifting Waist to Shoulder
- Lifting Shoulder to Overhead
- Push
- Pull
- Carry

Additional Categories if noted on any job description/analysis to include:

- Perform work on ladders
- Keyboarding
- Wrist flexion/extension
- Operate Foot controls
- Vibration high/low

4. Cardiorespiratory Endurance Testing

Best practices are in development

5. Consistency/Level of Effort Testing:

- a) Consistency
- b) Level of Effort

Includes combined approach:

- Observational – hard and soft signs
- Consistency of test performance – distraction, placebo, test/retest
- Heart rate monitoring/response
- Isometric grip test battery



6. Musculoskeletal/Psychosocial Questionnaires:

- Include reliability as it relates to a worker's report of pain and abilities
- Selection based on characteristics of the client

Available from: L&I's Functional Scales resource:

https://lni.wa.gov/patient-care/advisory-committees/_docs/2018DocFuncImprovfunctionalscales.pdf

Oswestry (ODI)
Roland (RMQ)
Neck Disability (NDI)
Shoulder Pain and Disability (SPADI)
Patient Health (PHQ-9)
Fear-Avoidance Belief (FABQ)
Tampa Kinesiophobia (TSK-11)
EPIC Hand Function Sort
PACT Spinal Function Sort
Pain Disability Index (PDI)
McGill Pain Questionnaire (MPQ-SF)

World Health Organization Disability Assessment Schedule (WHODAS)

<https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health/who-disability-assessment-schedule>

Additional:

Dalles Pain Questionnaire
Orebro Musculoskeletal Pain Questionnaire (OMPQ)
Ransford Pain Drawing
Injustice Experiences Questionnaire (IEQ)
The Effect of Pain Scale (EOP)
MTAP (combines EPIC/PACT – requires a fee)



Functional Capacity Evaluation Additional Testing Considerations for the Upper Extremity

Upper Extremity: Shoulder, arm, elbow, forearm, wrist, hand

- Additional testing to consider with the comprehensive evaluation elements
- Same battery of screening/testing for injured and uninjured side based on job demands
- Early/late day comparison testing (except for material handling)

1. UE musculoskeletal screen (may include cervical)

- Active/Passive Range of Motion
- Strength
 - Grip
 - Power
 - Pinch
 - Tip
 - Palmer
 - Lateral
- Sensibility: May include light touch, warm/cold, 2 point discrimination (Stereognosis if 2 point diminished; Monofilament testing if light touch/2 point discrimination is diminished.)
- Edema (circumference/volume)
- Skin: Inspection (cleanliness –presence of dirt, grease, etc.) color, temperature, integrity, atrophy, callous formation
- Tone/Neural Tension
- Reflexes
- Quality of Movement

2. Coordination/dexterity testing (involved and uninvolved side based on job demands)

- Fine motor
- Gross motor

3. Unilateral and bilateral functional testing based on job demands

- Reach forward, reach waist to shoulder, work above shoulders, forceful grasping, handle/grasp (power), fine manipulation, lift floor to waist, waist to shoulder, shoulder to overhead, carry, push, pull.
- As needed: keyboarding, wrist flexion/extension, vibration high/low, handle/grasp (hook, cylindrical, spherical)
- Unique job specific tasks for handling/grasping/coordination (consider awkward spaces)

4. Brace/Splint (if worn, type, fit)



Sample Testing Protocol:

1. Intake interview
2. Pain questionnaires
3. Seated resting blood pressure and heart rate
4. Brief active/functional range of motion screen for initial quality of movement
5. Volumetric/circumferential measurements
6. Inspection: color; temperature; trophic changes; atrophy; scar integrity, swelling, cleanliness (dirt/grease), clubbing, color, callous formation, splint/brace
7. Sensory testing:
 - Light touch
 - Protective sensation to include temperature
 - 2-point discrimination
8. Full musculoskeletal screen of bilateral upper extremities to include:
 - AROM
 - PROM
 - Muscle testing
 - Reflexes
 - Neural tension (Median, Radial, Ulnar)
 - Provocative testing as indicated. (Purpose: to assess consistency)
9. Functional motion tests:
 - Overhead reach - measured in inches, compare each side
 - Forward reach bilateral upper extremity
10. Repetitive motion test/endurance testing: examples may include:
 - Overhead reach
 - Forward reach
 - Elbow flexion/extension
11. Jamar Grip test: 5-position and Rapid exchange (Purpose: to assess consistency and to match tool usage)
12. Pinch Test:
 - Palmar, Tip, Lateral



13. Functional Testing:

- Perform back to back MTM and time duration tests to measure repetitive fingering/fine manipulation; grasping/handling for frequency tolerances
 - May include: Purdue Pegboard; Minnesota Dexterity test; Valpar 7; Valpar 8; Valpar 9; Valpar 1; Matheson panel system; Bennett Tool Task test; Bus Bench assembly/disassembly

14. Material handling based on job demands:

- Bilateral
- Unilateral

15. Maximum lift test:

- Occasional basis:
 - Lifting: Floor to waist; waist to shoulder; shoulder to overhead; Carry
 - Push-pull
- Frequent basis
 - Lifting: Floor to waist; waist to shoulder; shoulder to overhead;

16. Work circuit: May include work simulation for Job of Injury/job goal/potential retraining goal: tool use; impact tool use; vibratory tools use; keyboarding on computer; Repetitive and sustained reaching and grasping/handling tasks

17. Post-test/repeat testing of:

- a) Functional testing
- b) Functional motion tests
- c) Repetitive motion test/endurance testing
- d) Jamar grip test on position of peak force
- e) Sensory testing as appropriate
- f) Volumetric/circumference measurements

**This sample is provided for educational purposes only. It is not meant to be an all-inclusive format. Use your clinical reasoning and judgement to fully evaluate the client based on their individual needs and job demands.

Developed by the members of the L&I Therapy Stakeholder Group