



Updates on Functional Capacity Evaluations

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What is an FCE?

- A FCE is an evaluation of capacity of activities that is used to make recommendations for participation in work while considering the person's body functions and structures, environmental factors, personal factors and health status. (Soer et al, 2008)

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Two types of FCEs

	Job Specific:	The evaluation protocol is designed with emphasis on content validity to measure a client's ability to perform the physical demands of a specific, identified job.
	General purpose:	Evaluate an client's compatibility with specific job or occupational demands when more information or options become available for consideration

How does a general purpose reduce overall validity?
Inaccurate measurement of a worker's actual performance capability in relation to these demands. (Pransky and Dempsey, 2004)

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Validity and Reliability:



Validity basically means "measure what is intended to be measured" (Field, 2005)



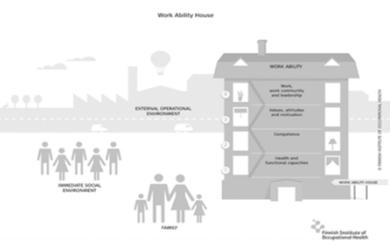
Reliability is the extent to which a measurement of a phenomenon provides stable and consistent result (Carmines and Xeller, 1979)

A reliable instrument may not always be valid.

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What is concept of work ability?

The bases for work ability are health and functional capacity, but work ability is also determined by professional knowledge and competence (skills), values, attitudes, and motivation, and work itself. (van den berg, 2012)



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What is the most effective approach in determining work ability?



A study by Soer et al (2008) recommended using the conceptual framework of the ICF because it considers functioning as a biopsychosocial understanding of health in which physical and behavioral functions are in dynamic interaction with each other.



Therefore, for an FCE to truly measure work ability, a biopsychosocial approach must be used. (Lakke, 2012, Echeita 2019)

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Effectiveness of FCE

In 2017, Peppers et al found that the addition of the FCE to the clinical evaluation by the physician changed the majority of the physician-assigned DOT levels.

In a study by Wind et al (2017). The IPs change their judgment of the physical work ability of claimants with MSDs in the context of disability claim procedures more often when FCE information is provided.

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When and why should you use an FCE?

- Work ability
- Work restrictions
- MMI Status
- Impairment determination
- Disability determination
- Ready to RTW

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What does an FCE entail?

- In-depth interview
- Musculoskeletal evaluation
- Postural assessment
- Work simulation / simulation of functional tasks
- Biometric measures
- Lifting assessment
- Cardio assessment

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CASE STUDIES

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Components of an FCE

FUNCTIONAL ACTIVITIES				
Activity	Simulated Activity			
Reaching overhead	Reaching for packages and scanning			
Test	Reps	Time	Ability	Reason for Stopping
1st trial	3/3	3:30	point in RTW, US, Range in RUL	
Valid Effort	Pre HR	Post HR	Notes	
42	60		Recent elevated range for US unless prompted, when reported immediately	
Reaching forward	pushing items out of bin			
Test	Reps	Time	Ability	Reason for Stopping
1st trial	3/3	3:30	point in RTW, US, Range in RUL	
Valid Effort	Pre HR	Post HR	Notes	
48	60	70	Hypertensive reading on use of US	

Daily Activities		
Activity	Repetitions	Notes
Walk to store independently	1-5	2
Walk to table independently	1-5	2
Walk to table independently	1-5	2
Walk around my desk	1-5	2
Walk a mile	1-5	2
Run with 20 lbs	1-5	2
Climb a flight of stairs	1-5	2

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Components of Report

Job Related Questions		Physical Demands	
Return To Work	Full Time	Physical Demands	Frequency
Notes	Client demonstrates ability to perform sedentary work only due to decreased ROM/strength in LUE and decreased activity tolerance. Does not demonstrate ability to meet lifting requirements.	Notes	
Was job description received?	Yes	Standing	Occasional
Physical Demands (Lifting)		Walking	Frequent
		Reaching	Frequent
		Twisting	Frequent
		Bending	Frequent
		Crouching	ACT
		Knocking	ACT
		Reaching	Occasional
		Climbing Ladders	Occasional
		Climbing Obstacles	Unable To Perform
		Driving	N/A
		Creeping	Occasional
		Fighting	Occasional
		Reaching Forward	Occasional
		Reaching Backward	Occasional
		Reaching Down	Frequent
		Push	Occasional

Physical Demand Level (PDL)	Sedentary	Light	Medium	Heavy	Very Heavy
Duration (hrs of day)	Up to 1 hr	Up to 2 hr	Up to 3 hr	Up to 4 hr	Up to 5 hr
Frequency (times of day)	None	1-2 times	3-4 times	5-6 times	7-8 times
Duration of lift of load	None	Up to 10 lbs	Up to 20 lbs	Up to 30 lbs	Up to 40 lbs
Physical Demands	0.0-1.0 METs	1.1-1.5 METs	1.6-2.0 METs	2.1-3.0 METs	3.1-4.0 METs

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PDL Classification

Physical Demand Level	Occasional 6-33% of the workday	Frequent 34%-66% of the workday	Constant 67%-100% of the workday	Typical Energy Required
Sedentary	10 lbs	Negligible	Negligible	1.3 - 2.1 METS
Light	20 lbs	10 lbs and/or wrist/hand/ankle/heel of arms/leg controls	Negligible and/or push/pull of arm/leg controls while seated	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

Occasional: 0-100 reps
One rep every 15 mins

Frequent: 101-500
One rep every 5 mins

Constant: Over 500 reps
One rep every 2 mins

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Specialty FCEs

- Long COVID
- Cognitive
- Traumatic Brain Injury
- Oculomotor

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