

OCCUPATIONAL HEALTH PHYSICAL THERAPY: EVALUATING FUNCTIONAL CAPACITY GUIDELINES

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1.0 Int

 1.0 Introduction

A Functional Capacity Evaluation (FCE) is a comprehensive battery of performance based tests that is used commonly to determine ability for work, activities of daily living, or leisure activities.¹

The need for functional evaluation was identified in the 1980s by workers' compensation systems that required specific information about worker functional capacities and limitations to expedite the return-to-work process. Historically, return-to-work decisions were based upon diagnoses and prognoses of physicians, but did not include objective measurements of worker functional abilities and job match demands. Physical therapists, whose core competencies include functional evaluation, began to develop functional capacity tests for comparison to the physical demands of jobs and occupations. These functional tests initially examined and evaluated the ability of a worker to perform physical job match conditions as described by the US Department of Labor in Selected Characteristics of Occupations as Defined in the Revised Dictionary of Occupational Titles² and The Revised Handbook for Analyzing Jobs.³ Functional examination/evaluation, combined with diagnoses and prognoses by physical therapists has emerged as a valid and effective tool to support safe return to work, activities of daily living or leisure activities after an injury or illness.

The Functional Capacity Evaluation today quantifies safe functional abilities, and is a pivotal resource for:

- 1.1 Return-to-work and job-placement decisions
- 1.2 Disability evaluation
- 1.3 Determination of how non-work-related illness and injuries impact work performance
- 1.4 Determination of functioning in non-occupational setting
- 1.5 Intervention and treatment planning
- 1.6 Case management and case closure

2.0 Purpose of Document

The purpose of this document is to establish guidelines for performance of Functional Capacity Evaluations (FCEs) in a manner that promotes excellence, accountability and consistency. The use of the term guidelines is consistent with the current APTA definition, Guideline: A statement of advice (Standing Rule #16). This document is to be used in context with the APTA *Standards of Practice for Physical Therapy* and the Accompanying Criteria, the APTA *Guide to Physical Therapist Practice, Second Edition*, and the standard language and framework for health and health-related states that is described in *The International Classification of Functioning, Disability and Health*, known more commonly as ICF⁶. The 2008 APTA House of Delegates voted unanimously to endorse the ICF Model, which uses a broad view of health-related states from biological, personal, and social perspectives. The ICF includes a "robust and rich taxonomy that describes, rather than classifies, individuals according to their functioning and provides a standard language that includes positive and negative aspects of functioning."

- 2.1 *Physical therapists* to design and perform functional evaluations.
- 2.2 Referral sources to facilitate appropriate referral for FCE and to integrate the findings into case management.
- 2.3 Insurance companies, managed care organizations, and claims review organizations, that authorize, monitor, and remunerate for FCEs.

2.4 State Workers' Compensation regulatory agencies as definitions and guidelines for evaluees on workers' compensation.

2.5 Disability management systems and regulators, including the Social Security Disability Administration and disability insurance companies, as a resource document.

2.6 Employers, employees, organized labor, educators, students, researchers, and others as a resource document.

3.0 Definitions

3.1 *Ability*⁷. A present competence to perform an observable behavior or a behavior which results in an observable product.

3.2 $Activity^6$. An activity is the execution of a task or action by an individual.

3.3 Activity limitation⁶. Activity limitations are difficulties an individual may have in executing activities.

3.4 Capacity⁶. The highest probable level of functioning of an individual in a given domain at a point in time.

3.5 Content validity⁷. Demonstrated by data showing that the content of a selection procedure is representative of important aspects of performance on the job.

3.6 *Environmental factors*⁶. Environmental factors make up the physical, social and attitudinal environment in which people live and conduct their lives.

3.7 *Evaluation.*⁵ A dynamic process in which the physical therapist makes clinical judgments based on data gathered during the examination.

3.8 *Examination.*⁵ A comprehensive screening and specific testing process leading to diagnostic classification or, as appropriate, to a referral to another practitioner. Examination has three components: history, systems review, and tests/measures.

3.9 Functional capacity activity. Any examination activity that generically or specifically simulates a work or practical lifestyle task.

3.10 Functional Capacity Evaluation (FCE). An FCE is a detailed examination and evaluation that objectively measures the evaluee's current level of functioning, primarily within the context of the demands of competitive employment, activities of daily living or leisure activities. Measurements of function from an FCE are used to make return-to-work/activity decisions, disability determinations, or to design rehabilitation plans. An FCE measures the ability of an individual to perform functional or work-related tasks and predicts the potential to sustain these tasks over a defined time frame. This supports tertiary prevention by preventing needless disability or activity restrictions.

There are two types of functional capacity evaluations:

167 3.18.7 Feeling. Perceiving the attributes of objects, such as size, shape, temperature, or 168 texture. 169 170 3.18.8 Finger dexterity. Ability to move the fingers and manipulate small objects with the fingers 171 rapidly or accurately. 172 173 3.18.9 *Fingering.* Picking, pinching, or otherwise working primarily with fingers rather than with 174 the whole hand or arm as in handling. 175 176 3.18.10 Handling. Seizing, holding, grasping, turning, or otherwise working with hand or hands. 177 Fingers are involved only to the extent that they are an extension of the hand, such as to 178 turn a switch or shift automobile gears. 179 180 3.18.11 *Hearing*. Perceiving the nature of sounds by ear. 181 182 3.18.12 Kneeling. Bending legs at knees to come to rest on knee or knees. 183 184 3.18.13 Lifting. Raising or lowering an object from one level to another (includes upward pulling). 185 186 3.18.14 Manual dexterity. Ability to move the hands easily and skillfully. To work with the hands 187 in placing and turning motions. 188 189 3.18.15 Motor coordination. Ability to coordinate eyes and hands or fingers rapidly and 190 accurately in making precise movements with speed. Ability to make a movement 191 response accurately and quickly. 192 193 3.18.16 Near acuity. Clarity of vision at 20 inches or less. 194 195 3.18.17 Pulling. Exerting force upon an object so that the object moves toward the force 196 (includes jerking). 197 198 3.18.18 Pushing. Exerting force upon an object so that the object moves away from the force 199 (includes slapping, striking, kicking, and treadle actions). 200 201 3.18.19 Reaching. Extending hand(s) and arm(s) in any direction. 202 203 3.18.20 Sitting. Remaining in a seated position. 204 205 3.18.21 Standing. Remaining on one's feet in an upright position at a work station without 206 moving about. 207 208 3.18.22 Stooping. Bending body downward and forward by bending spine at the waist, requiring 209 full use of the lower extremities and back muscles. 210 211 3.18.23 Talking. Expressing or exchanging ideas by means of the spoken word to impart oral 212 information to clients or to the public and to convey detailed spoken instructions to other 213 workers accurately, loudly, or quickly. 214 215 3.18.24 Walking. Moving about on foot. It is acknowledged that not all physical job match 216 conditions have well established, objective tests and measures for testing evaluees. 217 This may limit the usefulness of including some factors during a functional capacity 218 evaluation or job analysis process. 219 220 3.19 Job Modification. Change in a task to allow the demands of the job to match the abilities of the 221 evaluee. 222 3.20 Medically stable. Medical stability is defined as that state in which primary healing is complete, 223

or the progression of primary healing is not compromised. Clinically, medical stability refers to

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the consistent presence of a set of signs and symptoms. Consistent means that the location of the symptoms and the presence of the signs have reached a plateau. The intensity of the symptoms may vary with activity or intervention/treatment, but the location or pattern of change of symptoms remains consistent.⁵

- 3.21 *Physical Demand Characteristic Levels* for physical job match conditions of occupations listed in the Revised Dictionary of Occupational Titles include:²
 - 3.21.1 Categories of Strength physical demand levels:
 - 3.21.1.1 Sedentary. 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.
 - 3.21.1.2 *Light.* 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. Even though the weight lifted may be only a negligible amount, a job should be rated Light Work: (1) when it requires walking or standing to a significant degree; or (2) when it requires sitting most of the time but entails pushing or pulling of arm or leg controls; or (3) when the job requires working at production rates pace entailing the constant pushing or pulling of materials even though the weight of those materials is negligible.
 - 3.21.1.3 *Medium.* Exerting 20 to 50 pounds of force occasionally, or 10 to 25 pounds of force frequently, or greater than negligible up to 10 pounds of force constantly to move objects.
 - 3.21.1.4 *Heavy.* Exerting 50 to 100 pounds of force occasionally, or 25 to 50 pounds of force frequently, or 10 to 20 pounds of force constantly to move objects.
 - 3.21.1.5 *Very Heavy.* 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.

Job match conditions that may be interpreted using strength physical demand levels include lifting, carrying, pushing and pulling.

- 3.21.2 Categories of *Aptitude levels*² relevant to some physical job match conditions are:
 - 3.21.2.1 *Markedly Low.* The lowest 10 percent of the population. This segment of the population possesses a negligible degree of the aptitude.
 - 3.21.2.2 *Lower.* The lowest third exclusive of the bottom 10 percent of the population. This segment of the population possesses a below average or low degree of the aptitude.
 - 3.21.2.3 *Medium.* The middle third of the population. This segment of the population possesses a medium degree of the aptitude ranging from slightly below to slightly above average.
 - 3.21.2.4 *High.* The highest third exclusive of the top 10 percent of the population. This segment of the population possesses an above average or high degree of the aptitude.

- 3.21.2.5 Extremely High. The top 10 percent of the population. This segment of the population possesses an extremely high degree of the aptitude (exceptional). Examples of functional capacity conditions that may be interpreted using the aptitude work demand levels include finger dexterity, manual dexterity, balancing and motor coordination.
- 3.21.3 Categories of work tolerance levels^{2,3} during an 8-hour day as defined by the US Department of Labor^{2,3} are:
 - 3.21.3.1 Not Present (Never). Activity or condition does not exist
 - 3.21.3.2 Occasionally. Activity of condition exists up to 1/3 of time
 - 3.21.3.3 Frequently. Activity or condition exists from 1/3 to 2/3 of time
 - 3.21.3.4 Constantly. Activity of condition exists 2/3 or more of time.

Examples of functional capacity conditions that are appropriate to evaluate by work tolerance levels include sitting, standing, bending.

Additionally, given that some jobs require exposure that is more than an 8-hour workshift, the functional capacity examiner may need to assess an evaluee's work tolerances for such work situations that involve *extra time or exposure* above an eight-hour shift. For example, an over-the road truck driver may sit and drive for up to 12 hours during a given day. A higher level of sitting tolerance representing extra time above an 8-hour shift would be required for truck drivers exposed to whole body vibration, compared to SEDENTARY office workers that may sit for up to 8 hours per day.

- 3.22 *Physical Demands of the Job.* Those physical abilities required to perform work tasks successfully. Physical demands as used in this document include work postures positions, body movements, forces the worker applies to job tasks, repetition of the work tasks, and other work stressors.
- 3.23 Skill. A present, observable competence to perform a learned psychomotor act.
- 3.24 *Work behavior*. ⁷ An activity or function performed to achieve the objectives of the job. Work behaviors involve observable (physical) components and unobservable (mental) components. A work behavior consists of the performance of one or more tasks.

4.0 Knowledge Base

For safe FCE administration and useful interpretation, the FCE examiner should meet competency criteria to ensure a high standard of service provision through adequate knowledge and skills in the following areas:

- 4.1 Examination (includes history, systems review, and tests and measures) of the following systems:
 - 4.1.1 Cardiovascular/pulmonary⁸
 - 4.1.2 Integumentary
 - 4.1.3 Musculoskeletal
 - 4.1.4 Neuromuscular

340 4.2 Administration of FCEs and interpretation of tests results. 341 342 4.3 Evaluation of physical demands of the job. 343 344 4.4 Identification of evaluee behaviors that interfere with physical performance. 345 346 4.5 Biomechanical components of safe work practices. 347 348 4.6 Impact of relevant laws and regulations on FCE administration, including, but not limited to: 349 350 Americans with Disabilities Act 4.6.1 351 352 4.6.2 Code of Uniform Guidelines for Employment Selection⁷ 353 354 4.6.3 Occupational Safety and Health Administration 355 4.6.4 Social Security Disability Administration 356 357 358 4.6.5 Workers' Compensation 359 360 4.6.6 Health Insurance Portability and Accountability Act (HIPAA) 361 362 5.0 Admission Criteria 363 364 5.1 The purpose(s) for performing an FCE should be defined. 365 366 5.2 Admission criteria require that both of the following be present. 367 The evaluee must be medically stable⁵ or the FCE test protocol should be administered 368 5.2.1 within the safe confines of the evaluee's health condition. 369 370 5.2.2 371 The evaluee must consent to participate. 372 373 5.3 A decision-making process should be used to determine whether a functional capacity 374 evaluation is appropriate. Indications for an FCE may include, but are not limited to, situations in 375 which objective functional information is required: 376 Evaluee reaches a point where he/she is not making functional gains with 377 5.3.1 378 intervention/treatment. 379 380 5.3.2 Evaluee has not returned to full or modified duty. 381 382 5.3.3 Evaluee is working, but having difficulty maintaining job/activity function is reported or 383 demonstrated. 384 385 5.3.4 Healthcare examiner's report that evaluee displays discrepancy between subjective 386 complaints and objective findings. 387 Supporting documentation is required for disability determination, determination of loss 388 5.3.6 389 of earning capacity, litigation settlement or case resolution. 390 5.3.7 Supporting documentation is requested to assist with future rehabilitation or vocational 391 392 planning. 393 394 5.3.8 Supporting documentation is requested to help render a job-placement decision. 395 396 5.3.9 Evaluee requires an opportunity to demonstrate safe performance of functional tasks.

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5.4	Contra	aindications for an FCE include any one or more of the following:				
	5.4.1	Performance of the test would compromise the evaluee's safety or medical condition ⁸ .				
	5.4.2	Communication barriers preclude understanding instructions, communicating concerns, and interpreting the evaluee's responses during the FCE.				
	5.4.3	Evaluee does not give consent to participate in an FCE.				
6.0 Tes	st Comp	ponents				
	mponen cumenta	ts of an FCE should include but are not limited to appropriate administration and tion of:				
6.1	Intake	Intake Information/Referral Issues				
	6.1.1	Referral source and relationship to the Evaluee.				
	6.1.2	Reason for the referral.				
	6.1.3	Underlying medical conditions that may impact work abilities.				
	6.1.4	Medical restrictions for safety during the FCE.				
	6.1.5	Documentation of Job demands when a job match is being requested.				
	6.1.6	Review of records, especially objective diagnostics.				
6.2	Inform	ned consent				
	6.2.1	Review reason(s) and objective(s) of the functional capacity evaluation, for example:				
		6.2.1.1 Support return to work planning.				
		6.2.1.2 Improve communications between all parties.				
		6.2.1.3 Structured process to explore worker abilities or limitations.				
		6.2.4.4 Confirm suitability of a specific job option.				
	6.2.2	Explain what is involved during the FCE, what the worker can expect, including that if any inconsistencies in performance occur, they will be discussed with the worker as they arise and are documented.				
	6.2.3	Address the risks for injury, aggravation of symptoms, or possibility of soreness in response to testing and explain exam procedures that will help reduce such risks.				
	6.2.4	Obtain release of information for involved parties and explain how the evaluee will receive the FCE information, when appropriate or required.				
	6.2.5	Address any evaluee's concerns before proceeding with evaluation.				
6.3	Job du	duties and related physical demands.				
		eview evaluee's most recent job duties and related physical demands to ensure agreement by e evaluee with information provided by employer (if available).				
		History				

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457 458		6.4.1	Mechanism of injury	
459		6.4.2	Treatment to date	
460 461 462		6.4.3	Objective diagnostic tests	
463 464		6.4.4	Surgeries	
465		6.4.5	Other relevant claims/medical history	
466 467		6.4.6	Evaluee's report of current symptoms and work/leisure limitations	
468 469		6.4.7	Current medications	
470 471	6.5	Systems Review		
472 473		6.5.1	Cardiovascular/pulmonary	
474 475		6.5.2	Integumentary	
476 477		6.5.3	Musculoskeletal	
478 479		6.5.4	Neuromuscular	
480 481		6.5.5	Communication, Affect, Cognition, Language and Learning Styles	
482				
483 484	6.6	Physica	al examination appropriate for health condition(s) and referral questions.	
485 486	6.7	Conduc	ct functional capacity tests as appropriate to address the referral questions	
487 488		6.7.1	Static strength tests to evaluate consistency of effort (e.g. grip, pinch, pull)	
489 490		6.7.2	Dynamic balance/agility	
491		6.7.3	Finger dexterity tests	
492 493		6.7.4	Manual dexterity tests	
494 495		6.7.5	Cardiorespiratory endurance tests ⁸	
496 497		6.7.6	Postural tolerance tasks	
498 499		6.7.7	Lift/carry strength and endurance tests	
500 501		6.7.8	Simulated or actual work tasks	
502 503	6.8	Observation of evaluee		
504 505		6.8.1	Cooperation during participation.	
506 507		6.8.2	Consistency and level of effort.	
508 509		6.8.3	Behaviors that interfere with physical performance.	
510 511		6.8.4	Body mechanics/safety.	
512 513		6.8.5	Physiological responses and clinical findings.	

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- 6.9 Evaluation of history, records, and test results to recommend safe work abilities.
- 6.10 Comparison of evaluee's safe work abilities with job or task demands (if known and requested by the referral source).

7.0 Test Administration

The physical therapist providing an FCE has the responsibility to ensure that an FCE is appropriate for the evaluee, that the tasks of FCE can be performed safely, that any conflicts of interest with parties involved in the FCE process are identified and managed to ensure objectivity. Important characteristics of test administration include:

- 7.1 Ensuring that evaluees are screened for underlying medical conditions that prohibit or limit participation in functional testing.
- 7.2 An FCE includes musculoskeletal screening and kinesiological assessment of the manner that tests are performed to analyze root causes of an evaluee's disability; therefore, an FCE should be performed by the physical therapist and should not be delegated to support staff that cannot perform PT examination/evaluation procedures within their scope of work.
- 7.3 Identifying, quantifying and analyzing the functional abilities/limitations includes:
 - 7.3.1 Designing and implementing tests of basic functional abilities.
 - 7.3.2 Designing and implementing tests to simulate job-specific tasks.
- 7.4 Identifying evaluee behaviors that might interfere with physical performance during the:
 - 7.4.1 Interview process.
 - 7.4.2 Examination process.
 - 7.4.3 Functional testing process.
- 7.5 Comparing the physical demands of work with the results of functional testing, reported lifestyle activities and medical records reviewed (when relevant).
- 7.6 Documenting results of a completed evaluation process.
- 7.7 When appropriate, identifying:
 - 7.7.1 Job modifications that would make a job compatible with the physical abilities of the evaluee.
 - 7.7.2 Interventions that would improve the physical abilities of the evaluee.
 - 7.7.3 Need for referral to other professionals.
- 7.8 Selection of the examination location The location should be accessible to the evaluee and appropriate to address the referral issues (e.g. work-site, clinic).
 - 7.8.1 A general purpose FCE may be conducted in a clinic or work-site location.
 - 7.8.2 The work-site location may be important if the examiner needs to verify job demands and/or confer with the employer about accommodation options.
- 7.9 Duration

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9.1.4

Ethnicity

630		9.1.5	Socioeconomic level
631		0.4.0	
632		9.1.6	Educational level
633		0 1 7	Deferred course
634 635		9.1.7	Referral source
636		9.1.8	Purpose of the FCE
637		0.1.0	Talpood of the FGE
638			9.1.8.1 Quantification of safe functional abilities
639			
640			9.1.8.2 Return-to-work and job-placement decisions
641			
642			9.1.8.3 Disability evaluation
643 644			9.1.8.4 Determination of impact of non-work-related illness and injuries on work
645			9.1.8.4 Determination of impact of non-work-related illness and injuries on work performance
646			penormance
647			9.1.8.5 Determination of function in non-occupational settings
648			
649			9.1.8.6 Intervention and plan of care
650			
651			9.1.8.7 Case management and case closure
652 653			9.1.8.8 Guidance for intervention/treatment
654			9.1.0.0 Guidance for intervention/treatment
655		9.1.9	Administrative
656			
657			9.1.9.1 Test duration in hours
658			
659			9.1.9.2 Number of test days
660 661			9.1.9.3 Contact time per test by FCE provider
662			o. 1.3.0 Contact time per test by 1 CE provider
663		9.1.10	Previous work-related injury
664			
665		9.1.11	Attorney involved/not involved
666	0.0	Dravia	
667 668	9.2	Previou	us and concurrent treatment
669		9.2.1	Type of provider
670		0.2	Type of provider
671		9.2.2	Type of treatment
672			
673	9.3	Occupa	ational and injury data
674 675		0.2.4	Diagnoses by physicians
675 676		9.3.1	Diagnoses by physicians
677		9.3.2	Diagnoses by physical therapists
678			3
679		9.3.3	Most Recent Employment Status
680			
681			9.3.3.1 Full-time
682 683			9.3.3.2 Part-time/PRN
684			O.O.O.Z I art time/i iti
685			9.3.3.3 Retired
686			
687			9.3.3.4 Laid off

688 689			9.3.3.5 Terminated
690		0.0.4	
691 692		9.3.4	Return to work goal
693 694			9.3.4.1 Same job/same employer
695			9.3.4.2 Modified job/same employer
696 697			9.3.4.3 Different job/same employer
698			
699 700			
701 702			9.3.4.5 Different job/different employer
703			9.3.4.6 None
704 705		9.3.5	Work activity status
706 707			9.3.5.1 Full duty
708			·
709 710			9.3.5.2 Limited duty
711			9.3.5.3 Disability leave
712 713			9.3.5.4 Personal leave
714			
715 716			9.3.5.5 Unemployed
717 718		9.3.6	Date of injury/onset
719		9.3.7	Date(s) of FCE
720 721		9.3.8	Time between date of injury/onset and date of FCE
722 723		9.3.9	Previous injury/New injury
724 725		9.3.10	Total work time lost
726 727		9.3.11	Target job
728 729	9.4	FCE fir	ndinas
730			
731 732		9.4.1	Physical demands characteristics ¹ strength and aerobic level
733 734		9.4.2	If a target job exists, the functional abilities of the evaluee and physical work demands of job match/don't match
735 736		9.4.3	Functional Progress (if relevant)
737 738			9.4.3.1 Unspecified
739 740			9.4.3.2 Appropriate
741 742			9.4.3.3 Slow
743 744 745			9.4.3.4 Not responding

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- 9.4.4 Intervention or treatment/No intervention or treatment (if requested)
- 9.5 Follow-up
 - 9.5.1 Purpose(s) of the FCE met/not met
 - 9.5.2 Continued medical or rehabilitation services engaged/not engaged
 - 9.5.3 Continued, successful job placement 90 days after return to work. Note: Job placement success is affected by other factors, including the evaluee's motivations and employer commitment to job accommodation.

Acknowledgment

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