

# Work Hardening and Conditioning

## *Preparing the Employee for the Essential Duties of the Job*

R.GAGNE, EET, CFE, NADEP

Copyright © 2010 Fit2WRK<sup>SM</sup>

### ABSTRACT

Workers with persisting difficulties in returning to work, or their normal work duties, following non-specific musculoskeletal injuries are at risk of permanent disability once these problems last more than 3-6 months (Waddell and Burton, 1999). Medically, they may be considered no different from similarly injured workers who have returned to work (eg. Cohen et al., 2000), and there is usually no evidence-based medical treatment, such as medication, injections, or surgery available. It is in everyone's best interest to restore their normal range of activities as soon as possible, lest the undesirable effects of disuse further complicate the picture. The longer an injured worker was off work and not performing their normal range of either work or home activities, the more physically de-conditioned they risked becoming (Polatin and Mayer, 1998). This could be reflected in features like reduced muscle bulk, stiff joints, and pain on movement. By helping such people to resume normal activities as soon as they were considered medically stable, even in the presence of persisting pain, it is expected that they would be able to prevent the effects of physical de-conditioning. In turn, this is expected to reduce their risk of long-term disability and loss to the work force, with associated financial and social consequences to themselves and society in general. Consistent with this philosophy, various types of exercise programs have been promoted for workers with musculoskeletal injuries. These programs have often been designated as either work-conditioning, work-hardening or functional restoration to emphasize their attention on functional activities and return to work outcomes.

### Work Conditioning Programs

A position paper published by The Work and Functional Conditioning Industry (NSW) (1998) defined 'work conditioning programs' as 'work related', physical rehabilitation with the goal of restoring the client's physical capacity and function so she/he can be returned to, maintained at or upgraded at work. This would be achieved through restoration of the individual's systemic, neurological-musculoskeletal (strength, endurance, movement, flexibility and motor control) and cardiopulmonary functions. This may be carried out through a specific exercise program or in a real or simulated work or functional task. The definition also noted that these activities may require a multidisciplinary approach, but Gibson et al. (2002) suggested these programs usually required fewer healthcare disciplines and were less time consuming than the more intensive work-hardening programs. Work Conditioning is an individualized and structured rehabilitation program organized to improve function, and quality of life with a goal of return to work. The program primarily consists of physical conditioning and injury prevention and wellness education designed to return the client to his/her previous employment. It provides coordinated and outcomes-oriented services in an outpatient setting.



*"Work conditioning is defined as a general approach to getting an individual back in condition to be able to work in some arena, it could be as general as working at a job or any job versus not working. It basically involves exercise, but doesn't involve vocational rehabilitation or a great deal of work simulation, because those would be part of the work hardening."*

### Example of Work Conditioning

An example would be a 40-year-old construction worker falls off a scaffold on the job and injures his head, requiring surgery and resulting in ongoing issues on the left side of his body. The therapist works with the patient for an hour a day for six weeks, going over therapeutic exercises, range-of-motion activities and strengthening exercises to allow the patient to gain enough strength and balance to find a new position.

### Work Hardening Programs

These are considered to be more comprehensive than work conditioning or job specific rehabilitation programs in that they may be delivered by a range of health professionals. Real or simulated work activities may be used to restore physical, behavioral and vocational functions. They often operate on an up to five hour per day basis, five days a week for two to three weeks. Work Hardening is usually an interdisciplinary, individualized, job specific program of activity with the goal of return to work. Work Hardening programs use real or simulated work tasks and progressively graded conditioning exercises that are based on the individual's measured tolerances. Work hardening provides a transition between acute care and successful return to work and is designed to improve the bio-mechanical, neuromuscular, cardiovascular and psychosocial functioning of the worker.

### When to use?

When the Work Conditioning client has received acute rehabilitation services and is expected to return to his/her previous employment, however, is unable to do so as a result of general de-conditioning since the injury and his/her limited endurance or tolerance to work requirements. Once such a program is established the client is expected to become independent with safe performance of program activities.

### What does the program consist of?

Essentially a work hardening program consists of 1/3 cardiovascular training tasks to increase endurance of the worker, 1/3 injury specific tasks – to ensure stabilization of the affected or injured area and lastly 1/3 work simulated activities specifically focused on the essential and critical demands of the job.

The above may include:

- Physical conditioning
- Simulation of specific and/or general work requirements
- Training and/or modification of activities of daily living
- Injury prevention and wellness education
- Cognitive-behavioral pain management training
- Education designed to return the client to his/her previous employment or the productive work force, and improve his/her level of functioning



**Who Provides Treatment?**

Interdisciplinary evaluation is done by a team consisting of the program director and a group of designated staff members who are familiar with industrial rehabilitation. This team *may include*, but is not limited to the client, treating physician, psychologist, vocational counselor, physical and occupational therapists, physical and occupational therapist assistants, and other technical personnel.

**Key Directives of the Program:**

**1. Strength and endurance** development of the individual in relation to the return to work goal. Equipment and methods that quantify and measure strength and conditioning levels must be utilized; i.e., ergometers, dynamometers, treadmills, measured walking tolerances; commercial strength and exercise devices, free weights, circuit training. Goals for each worker are dependent on the demands of their respective jobs.

**2. Simulation of the critical work demands**, the tasks and the environment of the job the worker will return to. Job simulation tasks that provide for progression in frequency, load and duration are essential. They must be related to the work goal and include a variety of work stations that offer opportunities to practice work related positions and motions, i.e., clerical, plumbing, electrical.

**3. Education** that stresses body mechanics, work pacing, safety and injury prevention and that promotes worker responsibility and self-management. The education component requires direct therapist/worker interaction. Video or slide presentations may be an integral part of the program, but cannot be the only element. These programs should cover physio-anatomy, back care, posture, pain management as related to body mechanics and safety. The role of exercise and the worker's responsibility in self-treatment must be covered.

**4. Assessment** of the need for job modifications. If the worker can return to the stated job goal, but only with changes, i.e., added equipment, changes in work position or ergonomics changes at the work site, these are to be documented and reported to the claims manager/VRC. Adaptations should be made and practiced to insure success. Resources for equipment should be researched and documented. On site job modification consultations must be pre-authorized by the claims manager and documented by separate report.

**5. Evaluation:** This plan needs to be based on functional capacity (baseline) evaluation and must be completed within the first 2-3 days of the program and these compared to the critical demands as stated on the job analysis. A comparative analysis (re-evaluation) is done prior to discharge to determine job readiness.

The program / facility needs to provide an area that supports simulated or real work opportunities in a safe environment and as noted above there is a requirement for periodic re-evaluation and documentation of progress, outcomes, and appropriateness to continue. Based on the Commission

on Accreditation of Rehabilitation Facilities in the US, King (1998) defined work hardening programs as highly structured, goal-oriented, individualized treatment aimed at maximizing the individual's ability to return to work. Coe's (1995) report indicated that work hardening programs address not only physical fitness, but psychological and specific work-related difficulties, such as fears and tolerance for standing at a bench or pushing/pulling tasks, as well. These links between performance of work-related tasks, in real or simulated settings, in relation to work-hardening programs, has also been made by others (eg. Niemeier et al., 1994; Wyrick et al., 1991). Niemeier et al. (1994) also suggested that these programs might be seen as fitting in between medical interventions and return to work.

**Example of Work Hardening**

"Suppose a courier driver was hit by a car while delivering a package; to get him in condition to go back to work, the therapists would offer him education on how to build strength, perform exercises with him, and simulate his work environment a warehouse, a truck, a delivery location and they would go over the steps of the job with him. They would practice these tasks over and over, working to increase the amount of time spent during the rehabilitation period."

**Functional Conditioning or Job Specific Rehabilitation**

The Work and Functional Conditioning Industry (NSW) (1998) defined functional conditioning as 'function related,' in which the objective was 'to restore the client's physical capacity and maximize function.' The methods employed were similar to those employed in work conditioning programs, especially through the use of physical rehabilitation. Once a client/patient has reached a general level of function, then the program is directed at simulating essential and critical components of the job. This may be an entry into return to duties at a modified or transitional basis, return to previous job or to provide a vocational match in the field of work if their previous job no longer exists.



*"Job Specific Rehab includes Work Conditioning and is the first phase of the Work Hardening directive"*

**Billing and Coding:**

The American Physical Therapy Association (APTA) defines work hardening as, "Work Hardening: a highly structured, goal-oriented, individualized intervention program designed to return the patient/client to work. Work Hardening programs, which are multidisciplinary in nature, use real or simulated work activities designed to restore physical, behavioral, and vocational functions. Work Hardening addresses the issues of productivity, safety, physical tolerances, and worker behaviors." (APTA, 2005). Therapeutic services that are related to specific employment opportunities, work skills or work settings are not medically necessary for the treatment of a medical condition. The primary goal of work hardening programs is improvement of work function and abilities, and not treatment of an illness or injury. Therefore, work hardening programs are considered not medically necessary.

**Note:** "This list of codes may not be all-inclusive - some states have state specific coding requirements"

Not Medically Necessary/Not Covered: CPT* Codes	Description
97545	Work Hardening/Conditioning; initial 2 hours
97546	Work Hardening/Conditioning; each additional hour (list separately in addition to code for primary procedure)

Many therapists are familiar with 97545 (Work hardening/conditioning; initial 2 hours), which is used when therapists are trying to get a patient in back-to-work condition. What many therapists and coders do not realize, however, is that one of the top worker's compensation red flags occurs when work hardening is documented, but work conditioning is actually performed. This is because work hardening simulates a specific occupation to allow the patient to practice a particular job, whereas work conditioning offers the patient exercises to get the body ready for employment. Because work hardening involves more specific goals, insurers recognize that it takes much longer to perform, and thus more units of 97545 and its add-on code, +97546 (each additional hour), would be billed. Codes 97545 and 97546 were added to CPT in 1993, but are not covered by Medicare for treating an illness or injury because they relate to specific work skills. These codes, however, are frequently billed by PM&R coders to worker's compensation insurers when employees are injured on the job and need to get back to working condition.



According to the standard worker's compensation position statement, "Non-multiphasic 'work conditioning' programs will be reimbursed utilizing existing PT, OT, and Physical Medicine codes" and not the work hardening/conditioning codes. This means that the construction worker's one-hour training would be billed using four units of the timed code 97110 (Therapeutic procedure, one or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion and flexibility). Worker's compensation

laws vary on a state-by-state basis, and there is no national standard that requires that the other PM&R codes be billed instead of 97545 when work conditioning is performed. However, some states have found that requiring the timed therapeutic procedure code makes determining whether a therapist is billing for work hardening or the lower-paying work conditioning easier.

"Work conditioning can be done in a half-hour or an hour treatment, so you wouldn't even bill the full code 97545 for it in many cases, since two hours were not performed." In those cases, the recommendation is that practices add modifier -52 (Reduced services) to 97545. In addition, the documentation would have to be sent with a paper claim so the insurer could determine the payment.

**Note:** Work Conditioning programs are defined as General Occupational Rehabilitation Programs in the CARF manual, and are designated with CPT Codes 97545 or 97546 and modifier "WC" when billing.

## Conclusions

The objective of Work Hardening/Work Conditioning / Functional Conditioning or Job Specific Rehabilitation is to provide standards to facilitate timely rehabilitation for return to work. As shown in the research literature, a majority of patients with work-related injuries will only require conventional rehabilitation and return to work without requiring more comprehensive treatment of Work/Functional Conditioning or Work Hardening. However, it is important to identify those needing more comprehensive Work Conditioning or Work Hardening in a timely manner. By increasing the timeliness of rehabilitation, this helps reduce worker's compensation costs by decreasing time away from the job, thereby decreasing potential for worsening of condition and decreasing the amount of expenditure on salary replacement. The objective of timely treatment begins with the employer and/or employee. At the time of injury, these parties must report a compensable injury in a timely fashion to ensure there is no delay in the treatment of that injury. It is important that the employer work with the insurance carrier and healthcare providers to ensure the injured worker is given the opportunity to return to work in either a modified or full duty status as quickly as medically possible. If appropriate, the physician will provide a prescription for outpatient rehabilitation.

In some cases, the patient may not return to work after a sufficient time with conventional outpatient rehabilitation services. In these cases, it will be important to consider a more comprehensive approach to return to work. Research suggests that 90% of individuals with work-related injuries that return to work within a six month period and will not require such services.

Patients who require a comprehensive approach, are relatively independent and do not present with attitudinal, behavioral, or significant chronic pain that would interfere with return-to-work and are appropriate candidates for work conditioning.

In summary, the goal of work / functional conditioning is to restore an individual's physical, functional, and vocational skills in preparation for returning to the productive work force. Patients who require a major comprehensive approach to return to work, require more direction and individualized care, present with attitudinal, behavioral, or significant chronic pain that would interfere with return to work are appropriate for work hardening. The goal of work hardening is to restore an individual's physical, functional, behavioral, psychosocial, and vocational skills in preparation for returning to the productive work force.

This process serves to benefit the patient, healthcare staff treating the patient, and payers. A majority of patients will be effectively served with conventional rehabilitation and, as research suggests, return to work within the first six months. Those requiring further rehabilitation would require a more comprehensive program of work / functional conditioning or work hardening. **The ultimate goal is return the worker back to the productive workforce with timely rehabilitation.**

*The information noted above is a summary of one of the components of Fit2WRK by USPh. This integrated model is available through USPh in close to 400 facilities and 44 states nationally. For additional information on how the Fit2WRK Model could help your organization, visit; [www.Fit2WRK.com](http://www.Fit2WRK.com) or call 1-877-Fit-2WRK.*

## References

1. American Occupational Therapy Association, Inc. (AOTA). OT Services in Work Rehabilitation. Updated 1/2008. Accessed February 19, 2009. Available at URL address: <http://www.aota.org/Consumers/FactSheets/Conditions/35205.aspx>
2. American Physical Therapy Association (APTA). Guidelines: Occupational Health Physical Therapy: Work Conditioning and Work Hardening Programs BOD G03-01-17-58.
3. Disler PB, Pallant JF. Vocational rehabilitation. *BMJ*. 2001 Jul 21;323(7305):121-3.
4. Firestein GS, Budd RC, Harris ED, McInnes IB, Ruddy S, Sergy JS. Kelley's Textbook of Rheumatology, 8th ed. Philadelphia, PA: W.B. Saunders; 2008. Gochfeld M. Occupational medicine practice in the United States since the industrial revolution. *J Occup Environ Med*. 2005 Feb;47(2):115-31.
5. Johnson LS, Archer-Heese G, Caron-Powles DL, Dowson TM. Work hardening: Outdated fad or effective intervention? *Work*. 2001;16(3):235-243.
6. Lechner DE. Work hardening and work conditioning interventions: do they affect disability? *Phys Ther*. 1994 May;74(5):471-93.
7. Sang LS, Ying Eria LP. Outcome evaluation of work hardening program for manual workers with work-related back injury. *Work*. 2005;25(4):297-305.
8. Schonstein E, Kenny DT, Keating J, Koes BW. Work conditioning, work hardening and functional restoration for workers with back and neck pain. *Cochrane Database Syst Rev*. 2003; (1): CD001822.
9. Stay-at-Work and Return-to-Work Process Improvement Committee. Preventing needless work disability by helping people stay employed. *J Occup Environ Med*. 2006 Sep;48(9):972-87.
10. Washington State Dept. of Labor and Industries. Work Hardening Program Standards. Accessed February 19, 2009. Available at URL address: <http://www.lni.wa.gov/Claims/Ins/Files/ReturnToWork/WhStds.pdf>
11. Wyman DO. Evaluating patients for return to work. *Am Fam Physician*. 1999 Feb 15;59(4):844-8.