INTRODUCTION

The purpose of these guidelines is to address early physical therapist examination, evaluation, diagnosis, and prognosis, for a worker who presents with a neuromusculoskeletal injury incurred on the job. Related physical therapist procedural interventions designed to prevent workplace recurrence of the injury are also addressed. The principles described are consistent with the management of similar injuries incurred, or contributed to, when the worker is at home or in the community. Early physical therapist intervention is essential and these guidelines describe a model for the workplace setting.

If essential principles guide the development of an early intervention process for physical therapist management of work-related neuromusculoskeletal impairments, activity limitations and participation restrictions significant savings in overall worker's compensation costs may be realized. Employer interest has a positive impact on employee morale and attitude toward active participation in resolution of the problem, and on modification of personal work habits to prevent recurrences of the neuromusculoskeletal problem.

Principle: Management of Lost Time and Minimization of Disability

The global outcomes of effective physical therapist management of the injured worker are to optimize work performance and minimize the development of work-related occupational disability. Effective and timely management of the injured worker is enhanced by participation in some form of productive duty, and access to on-site or convenient off-site service. The physical therapist is uniquely qualified to assess the workers' safe physical work capacities and encourage the employer to provide matching productive work alternatives. This may involve making accommodations to normal duty or providing alternative or transitional duty work. The physical therapist needs to have a working knowledge of the critical work demands obtained through a job-site analysis, video analysis, or written physical job demands analysis, or through communication with the employer.

Principle: Management of Neuromusculoskeletal Injury

The physical therapist has unique qualifications to facilitate optimal functional outcomes through:

- Diagnosis of the neuromusculoskeletal condition and application of interventions to specific systems and tissues affected by the injury.
- Determination of safe work activity that will not compromise medical stability
- The design of safe, progressive rehabilitation programs that aggressively recondition the injured worker. These programs are specific to the workers' job demands and are within their functional and medical limitations.
- Minimization of lost work time, through aggressive clinical management and promotion of productive work.
**Principle: Facilitation of Timely and Appropriate Referrals**

The physical therapist facilitates timely and appropriate referrals for other necessary intervention, i.e. physician specialists or other providers, through the constant monitoring of neuromusculoskeletal signs, symptoms, medical stability and progress. Injured workers are directed through the employer's health system working interdependently with physicians and other health care providers.

**Principle: Minimization of Injury/Reinjury Incident Rate**

The physical therapist's role in minimizing injury recurrence is in making sound and practical ergonomic recommendations for work station design, work performance and worker training to improve knowledge of personal responsibilities for fatigue control. For the injured worker these recommendations may be specific to the worker's neuromusculoskeletal condition. Ideally, physical therapist services are provided on-site or in close proximity to the workplace. Workers with potentially disabling neuromusculoskeletal signs or symptoms are directed early to the physical therapist service. Supervisors are trained to detect signs of cumulative trauma disorders, thus facilitating early referral.

The physical therapist should be knowledgeable of workplace duties, physical job requirements, equipment, and pertinent company policies and procedures. This knowledge, coupled with regular visibility in the workplace and demonstrated understanding of the physical challenges of the work, enhances the physical therapist's credibility and the overall effectiveness of the intervention strategies.

If the neuromusculoskeletal problem is not satisfactorily resolved within a limited number of visits, a referral for further examination and evaluation by another health professional may be indicated. As soon as medically prudent, the injured worker is referred again to the physical therapist. The injured worker is then progressed, as above, to a self-paced program with the worker assuming, as possible via appropriate education and training, the responsibility for continued improvement.

Clear, concise, functionally relevant information about the injured worker's physical therapist management and recovery progress must be documented and conveyed in a timely manner to all team members. A comprehensive "team" may include: the physician, the physical therapist, employer representative (such as human resources, safety management, and department contact person), the injured worker, the worker's supervisor, insurance carrier and the occupational health nurse.

**Physical Therapist Management**

The management of neuromusculoskeletal problems can be divided into four phases. The admission of an injured worker to a particular phase of care is based upon the physical therapist's examination/evaluation/diagnosis/prognosis of the worker's functional and neuromusculoskeletal status. Progression from one phase to the next is based on objective functional tests and measures. Duration of a treatment phase is influenced by the level of physical activity required by the job if reasonable alternative job placement is not available.

**Acute Phase** (Immediate Post-Trauma) - Patient management focused on the control and reduction of localized inflammatory response, joint and soft tissue swelling or restriction, and the stabilization and containment of the injury.

**Post-Acute Phase** - Involvement of the injured worker in more active/functional activities. Graduated therapeutic exercise to increase muscle performance, improve joint integrity and
mobility, and improve motor function (motor control and motor learning). Functional training to increase ability to perform physical tasks related to community and work reintegration.

Reconditioning Phase - More vigorous therapeutic exercise emphasizing daily functional and work activities and improved endurance. The injured worker's neuromusculoskeletal status is in the end phase of physiologic healing and ready for restoration of objectively measured functional capacities.

Return-to-Work Phase - This phase is indicated for worker's who have progressed satisfactorily through the reconditioning phase but are not yet ready to return to work because of identifiable physical, functional, behavioral or vocational deficits. An objective Functional Capacity Evaluation may be used as a basis for entry into this phase. This examination and evaluation serves with a review of previous treatment progression to inform the entry into an appropriate work conditioning or work hardening program. The ultimate anticipated goal is the restoration of the injured worker's physical and functional capacity for a safe and expeditious return-to-work.

Inherent in the management of all of the phases is frequent and open communication between the physical therapist and the injured worker, his/her supervisor, and the other members of the employee health team. The ongoing emphasis on injury prevention education, including proper body mechanics, self-responsibility, worker compliance with physician and physical therapist instructions, safe workplace practices and workstation modifications is essential.