# Workplace Accommodations for Persons with Musculoskeletal Disorders

*This brochure is one of a series on human resources practices and workplace accommodations for persons with disabilities edited by Susanne M. Bruyère, Ph.D., CRC, SPHR, Director, Program on Employment and Disability, School of Industrial and Labor Relations – Extension Division, Cornell University. It has been updated in June, 2000, by Sheryl Ulin, Ph.D., CPE, Research Investigator, The University of Michigan Center for Ergonomics from the original, which was written by Frank N. Morosky, M.S., P.T., the coordinator of the Cornell University Back Injury Prevention Program, Ithaca, NY.*

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*The full text of this brochure, and others in this series, can be found at: www.ilr.cornell.edu/ped/ada. Research reports relating to employment practices and policies on disability civil rights legislation, are available at: www.ilr.cornell.edu/ped/surveyresults.html.*

*For further information, contact the Program on Employment and Disability, Cornell University, 102 ILR Extension, Ithaca, New York 14853-3901; 607/255-2906 (Voice), 607/255-2891 (TTY), or 607/255-2763 (Fax).*

*More information is also available from the ADA Technical Assistance Program and Regional Disability and Business Technical Assistance Centers, (800) 949-4232 (voice/TTY), www.adata.org.*

Any disease, injury, or significant impairment to muscles, bones, joints, and supporting connective (soft) tissues is considered to be a musculoskeletal disorder (MSD). Approximately 14 million Americans have musculoskeletal disorders, which are the leading cause of disability among individuals of working age (18 to 64 years of age). Annual costs of MSDs [Occupational and Safety Health Act (OSHA) standard (proposed Fed Reg #, month, year)] are estimated to be:

- $15-$20 billion in workers compensation costs alone
- $45-$50 billion total when including other expenses

Many people with musculoskeletal disorders are considered individuals with disabilities under the Americans with Disabilities Act (ADA). An individual with a disability is a person who: has a physical or mental impairment that substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment. Whether a person's impairment substantially limits a major life activity depends on its nature and severity, how long it will last or is expected to last, and its permanent or long-term impact or expected impact.

Musculoskeletal disorders vary greatly in severity and degree of permanence. The provisions of the Americans with Disabilities Act of 1990 (ADA) do not apply to every musculoskeletal disorder. The ADA does not cover physical problems that are relatively minimal in nature and severity (e.g., a sprained toe or pulled muscle) or will heal in a short time.

**Job Application Process**

Before the passage of the ADA, some employers attempted to screen out persons with disabilities during the hiring process out of fear that these people represented an undue safety and workers' compensation risk. Employers used pre-placement medical examinations to identify the particular disability the applicant had and then used this information to make a hiring decision. The trouble with this approach was that the candidate had no chance to show the employer whether he could actually perform the job.

The employment provisions of the ADA (Title I) protect all qualified individuals with disabilities from discrimination in all employment decisions. Specifically, employers may not inquire about an applicant's medical history before making a conditional offer of employment. After a job offer is made, an employer may make

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disability-related inquiries or require medical examinations as long as this policy is applied consistently to all entering employees in a particular job category. All medical information collected is confidential and must be kept in a separate locked file. The employer cannot assume that the applicant is limited in performing the job's essential functions merely because he has a disability. If the post-offer inquiry shows that the prospective employee will be unable to perform the job without posing a significant risk of harm to himself or others, the employer must first determine if the risk cannot be reduced or eliminated by reasonable accommodation before refusing to hire this individual.

**What Is Reasonable Accommodation?**

Reasonable accommodation is the critical concept in the employment provisions (Title I) of the ADA. It is any modification or adjustment to a job, employment practice, or work environment that enables a qualified individual with a disability to participate in and enjoy equal employment opportunity. The employer's obligation to provide a reasonable accommodation applies to all aspects of employment. This duty is ongoing and may arise anytime a person's disability or job changes, unless the accommodation causes an undue hardship to the employer. A qualified applicant or employee cannot be denied an employment opportunity because of the need to provide reasonable accommodation.

The ADA requires that employers consider all sources of outside funding when assessing whether a particular accommodation is too costly. This could include funding from outside organizations or tax credits or deductions. Moreover, if the cost of an accommodation would impose an undue hardship on the employer, the individual with the disability should be given the opportunity to provide the accommodation or to pay the portion of the cost that would otherwise constitute an undue hardship for the employer.

**What Types of Accommodations Should Be Considered?**

Workplace changes for people with musculoskeletal disabilities fall into two general categories: engineering accommodations and administrative accommodations.

*Engineering accommodations* include changes to the physical work environment and equipment such as:

- Selecting the right tool for a given job. Tools come in many different sizes, shapes and capacities. Tools should be selected that minimize physical stress so that workers don't have to reach or bend their wrists; the tools don't produce high pressure on workers' hands; and the worker does not become fatigued as a result of holding or operating the tool. In addition to selecting the best tool, many accessories are now available to help support the tool and resist reaction forces.
- Providing adjustable workstations (e.g. work tables, keyboard trays, monitor holders and seating). Remember that people differ in size and the way they do things. We do not expect all workers to wear the same size or style shoes and we should not expect them to all use the same size workstation or tools.
- Utilizing lift devices such as lift tables, tilt tables and mechanized lift assists. Lift tables bring items up off the floor and tilt tables reduce the horizontal reach. Both pieces of equipment decrease the amount of forward torso bending to load or unload work objects.

*Administrative accommodations* include changes in the manner in which work is performed such as:

- Periodic breaks (including micro-breaks, i.e. small recovery periods each work cycle or short breaks each hour).
- Avoiding incentive systems that discourage breaks.
- Education by a health care provider for injured workers that explains their condition and how to pace themselves to avoid re-injury.
- Education by supervisors and engineers for all workers on how to adjust work equipment, what to do if equipment is not working correctly and where to go for medical services.
- Worker rotation. It is important to make sure that workloads on the different jobs vary enough to provide recovery from high work demands.
- Providing sufficient time for new workers to learn and become accustomed to the physical demands of new jobs.

Utilization of these measures will not only make it possible for employers to meet the requirements of the ADA, but will also help prevent future injuries and disabilities and satisfy present and future OSHA requirements.

**Returning the Work-Disabled Employee to the Job**

Providing reasonable accommodations to individuals with disabilities applies not only to the hiring process, but also to employees who are returning to work after a workers' compensation claim. The individual with a disability is expected to perform the essential functions of the job with

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or without reasonable accommodation. These functions may be considered essential for several reasons:

1) the position exists so that the function can be performed;
2) a limited number of employees are available among whom the performance of the job function can be distributed;
3) the function is highly specialized so that the incumbent in the position is hired for her expertise or ability to perform it.

The individual with a disability does not need to be able to perform the marginal (nonessential) functions of the job. If the employee is otherwise qualified to perform a job but requires a reasonable accommodation to accomplish an essential job function, she cannot be discriminated against in being hired or in returning to work. Employers are not required to hire or retain individuals who pose a direct threat to the health and safety of himself/herself or others. The employer has an obligation to prove that a direct threat exists and that the threat cannot be eliminated or reduced to an acceptable level through reasonable accommodation.

**Maximizing Employee Potential for Success**

As with any significant change in the work environment, making job site accommodations for a disabled employee may have implications for effective labor relations. For example, an assembly-line worker with a low-back disability is reintroduced into the workplace following a job-related injury. He is able to return to his job because of modifications to his workstation that decrease the physical demands of the job and help to control his symptoms. Other employees with the same job title or union seniority, however, may want similar changes to their workstations to make their jobs less physically demanding.

The employer may feel this is a no-win situation. Not only does she have to pay for the disabled employee's accommodation, she also has to face the backlash from other workers who consider the accommodations a form of favoritism to which they are not entitled. Employee education about the ADA may be helpful in this situation.

An employer may not disclose that a particular employee has a disability or needs a reasonable accommodation. However, employees who have been informed about the ADA's protections in a general manner will understand that an employer must provide a reasonable accommodation that will enable an employee with a disability to perform the essential functions of his job and thus remain a productive member of the workforce. If accommodations are viewed in this way, there is a distinction between accommodating a disabled worker and making adjustments for able-bodied workers that make their jobs less physically demanding. While an employer may always choose to make ergonomic changes that help to prevent worker injuries, the ADA's requirements only extend to qualified individuals with disabilities.

If the dialogue between labor and management concerning the obligation to accommodate the individual with a disability is handled cooperatively, other employees will come to understand that different people can perform the same job in different ways and that the ADA will also protect them in the event of a future disability. By working closely with labor to ease the assimilation of individuals with disabilities back into the workplace, employers can achieve a result that is beneficial to all involved, and can create an atmosphere that facilitates the resolution of future conflicts. Employers may wish to consult experts in the field of labor relations and the ADA for additional guidance.

**Beyond the ADA**

Understandably, employers worry about the impact of the ADA on the cost of doing business. In most cases, however, accommodating a worker cost less than disability compensation does. Employers, in fact, have much to gain by investing in ergonomic redesigns to the entire workplace that go beyond the intent of the ADA. It has been estimated, for example, that the proper design of manual handling tasks can reduce by up to one-third the incidence of industrial back disorders.

Matching individuals to jobs, emphasizing employee skills and abilities, rather than limitations, and designing work stations and environments that minimize the likelihood of injury will lead to positive outcomes benefiting both employers and employees. In addition, jobs incorporating ergonomic design principles will often have positive impacts on product quality and employee productivity. Joint labor-management ergonomics programs are effective at identifying workplace risk factors and interventions.

**Resources**

If you have more specific questions about the ADA or Musculoskeletal disorders, please consult the resources listed below.

**ADA Regional Disability and Business Technical Assistance Center:** 1-800-949-4232 (voice/TTY); web: www.adata.org

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**Equal Employment Opportunity Commission:** 1801 L Street, NW, Washington, D.C. 20507, 800-669-4000 (voice) to reach EEOC field offices; for publications call 800-800-3302 or 800-669-EEOC (voice/TTY); web: www.eeoc.gov

**Job Accommodation Network (JAN):** West Virginia University, P.O. Box 6080, Morgantown, West Virginia 26506-6080, telephone 800-526-7234; web: www.jan.wvu.edu

**The University of Michigan Center for Ergonomics:** 1205 Beal, IOE Building, Ann Arbor, MI 48109-2117, 734-763-0133 (voice); web: www.engin.umich.edu/dept/ioe/C4E/

**Other Web-Based Resources**

American Board of Industrial Hygiene (ABIH): abih.org

American Conference of Governmental Industrial Hygienist (ACGIH):
www.ACGIH.org

American Industrial Hygiene Association (AIHA):
www.aiha.org/index.html

Americans with Disabilities Act:
www.usdoj.gov/crt/ada/adahom1.htm

ANSI accredited Z365 Committee on Work Related Cumulative Trauma Disorders:
www.nsc.org/z365.htm

Board of Certification of Professional Ergonomics (BCPE):
www.bcpe.org

Board of Certification of Safety Professionals (BCSP):
www.cfpa.com/accreds/bcsp.html

Ergonomics Society: www.ergonomics.org.uk

ErgoWeb Inc.: www.ergoweb.com/

FAA Human Factors Design Guide:
www.hf.faa.gov/ACQUIRE/design_guide/design_guide.html

Human Factors and Ergonomics Society: hfes.org/

I Can Online: ican.org

International Commission on Occupational Health (ICOH):
www.who.ch/ina/ngo/ngo043.htm

International Ergonomics Association: www.who.int/ina-ngo/ngo/ngo062.htm

Microsoft Accessibility Support: www.microsoft.com/enable

NAS Workshop on Musculoskeletal Injuries, August 20 & 21, 1998 Report: www.nap.edu/bookstore/index.html

National Center for Medical Rehabilitation Research:
silk.nih.gov/silk/NCMRR/default.htm

National Institute for Occupational Safety and Health (NIOSH):
www.cdc.gov/niosh/homepage.html
National Institute on Disability and Rehabilitation Research (NIDRR): www.ed.gov/offices/OSERS/NIDRR/

National Rehabilitation Information Center:
www.cais.com/naric

Occupational Safety and Health Administration (OSHA):
www.osha.gov/

Orthopaedic Section, American Physical Therapy Association, Inc.:
www.orthopt.org

Rehabilitation Engineering and Assistive Technology Society of North America (RESNA): www.resna.org/

Thomas Register: www2.thomasregister.com

University of Michigan Rehabilitation Engineering Research Center, Ergonomic Solutions for Employment:
umrerc.engin.umich.edu

We Media: www.wemedia.com

**Disclaimer**

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Cornell University is authorized by the National Institute on Disability and Rehabilitation Research (NIDRR) to provide information, materials, and technical assistance to individuals and entities that are covered by the Americans with Disabilities Act (ADA). However, you should be aware that NIDRR is not responsible for enforcement of the ADA. The information, materials, and/or technical assistance are intended solely as informal guidance, and are neither a determination of your legal rights or responsibilities under the Act, nor binding on any agency with enforcement responsibility under the ADA.

The Equal Employment Opportunity Commission has issued enforcement guidance which provides additional clarification of various elements of the Title I provisions under the ADA. Copies of the guidance documents are available for viewing and downloading from the EEOC web site at: http://www.eeoc.gov

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