

JAN

Job Accommodation Network

Practical Solutions • Workplace Success

Accommodation and Compliance Series

Accommodation and Compliance Series: Employees with Cumulative Trauma Conditions

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Funded by a contract with the Office of Disability
Employment Policy, U.S. Department of Labor

Preface

The Job Accommodation Network (JAN) is funded by a contract with the Office of Disability Employment Policy, U.S. Department of Labor. JAN makes documents available with the understanding that the information be used solely for educational purposes. The information is not intended to be legal or medical advice. If legal or medical advice is needed, appropriate legal or medical services should be contacted.

JAN does not endorse or recommend any products or services mentioned in this publication. Although every effort is made to update resources, JAN encourages contacting product manufacturers/vendors and service providers directly to ensure that they meet the intended purposes. This guarantees that the most up-to-date information is obtained.

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Updated 11/12/2018.

JAN'S Accommodation and Compliance Series

Introduction

JAN's Accommodation and Compliance Series is designed to help employers determine effective accommodations and comply with Title I of the Americans with Disabilities Act (ADA). Each publication in the series addresses a specific medical condition and provides information about the condition, ADA information, accommodation ideas, and resources for additional information.

The Accommodation and Compliance Series is a starting point in the accommodation process and may not address every situation. Accommodations should be made on a case by case basis, considering each employee's individual limitations and accommodation needs. Employers are encouraged to contact JAN to discuss specific situations in more detail.

For information on assistive technology and other accommodation ideas, visit JAN's Searchable Online Accommodation Resource (SOAR) at <http://askjan.org/soar>.

Information about Cumulative Trauma Conditions

Cumulative trauma disorders (CTDs) are impairments that are caused by repeated movements. Continuous use or pressure over an extended period of time results in wear and tear on tendons, muscles, and sensitive nerve tissue. The most common parts of the body affected are the wrists, hands, shoulders, knees, eyes, back, and neck. CTDs are groups of disorders with similar characteristics and may be referred to as: repetitive trauma disorders, repetitive strain injuries, overuse syndromes, regional musculoskeletal disorders, and work-related disorders. Examples of CTDs include:

- **Bursitis:** Bursitis is a condition where the bursal sac becomes irritated and painful
- **Carpal Tunnel Syndrome (CTS):** CTS is a condition that results from pinching of one of the nerves in the wrist and hand. This nerve, the median nerve, is compressed as it passes through the wrist, and because of this compression, the nerve does not function properly.
- **Cubital Tunnel Syndrome:** Cubital tunnel syndrome occurs when the ulnar nerve, one of the primary nerves supplying movement directions to the forearm muscles and sensory information from the hand, becomes compressed near the elbow.

- **DeQuervain's:** Lateral DeQuervain's, sometimes referred to as tennis elbow, can result from excessive activities such as painting with a brush or roller, running a chain saw, and using many types of hand tools continuously. Medial Epicondylitis, sometimes referred to as golfer's elbow, can result from activities such as chopping wood with an ax, running a chain saw, and using many types of hand tools continuously.
- **Impingement Syndrome:** Also known as rotator cuff syndrome, impingement syndrome is a result of the lack of room between the epicondylitis (upper part of shoulder blade bone) and the rotator cuff. Usually the tendons slide easily underneath the epicondylitis as the arm is raised; however, each time the arm is raised, there is a bit of rubbing on the tendons and the bursa between the tendons and the acromion. This rubbing, or pinching action, is called impingement. Continuously working with the arms raised overhead, repeated throwing activities, or other repetitive actions of the arm can result in impingement syndrome.
- **Radial Tunnel Syndrome:** Radial tunnel syndrome, also called resistant tennis elbow, is an entrapment or compression of a nerve within the forearm. The symptoms of radial tunnel syndrome closely resemble tennis elbow, although the cause is different. Radial tunnel syndrome is caused when the nerve that operates several muscles around the wrist and hand (the posterior acromion nerve) is compressed or pinched, causing weakness of the muscles supplied by the nerve and pain over the elbow where the compression takes place.
- **Tendonitis:** Tendonitis is a common condition that can cause significant pain. Tendonitis occurs when there is inflammation of tendons at the point where a muscle attaches to the bone.
- **acromion:** Inflammation of the tendon sheaths that may follow trauma, overuse, or inflammatory conditions.
- **Trigger Finger:** Trigger finger is a common condition caused by inflammation of the flexor tendons in the hand.
- **Thoracic Outlet Syndrome:** Thoracic outlet syndrome is a condition characterized by pain in the neck, shoulders, and fingers and weakening of the grip.

The symptoms of CTDs are aching, tenderness, swelling, pain, crackling, tingling, numbness, weakness, loss of joint movement, and decreased coordination. There could be one or several causes of CTDs. The repetition of small, rapid movements; working in a static and/or awkward posture for long periods of time; insufficient recovery time (too few rest breaks); improper workstation setup; forceful movements; excessive grasping; and poor work techniques may contribute to injury. Some conditions associated with CTDs are: broken or dislocated bones, arthritis, thyroid gland imbalance, diabetes, hormonal changes from menopause, and pregnancy.

Cumulative Trauma Conditions and the Americans with Disabilities Act

The ADA does not contain a list of medical conditions that constitute disabilities. Instead, the ADA has a general definition of disability that each person must meet. A person has a disability if he/she has a physical or mental impairment that substantially limits one or more major life activities, a record of such an impairment, or is regarded as having an impairment. For more information about how to determine whether a person has a disability under the ADA, see [How to Determine Whether a Person Has a Disability under the Americans with Disabilities Act Amendments Act \(ADAAA\)](#).

Accommodating Employees with Cumulative Trauma Conditions

People with cumulative trauma disorders may develop some of the limitations discussed below, but seldom develop all of them. Also, the degree of limitation will vary among individuals. Be aware that not all people with arthritis will need accommodations to perform their jobs and many others may only need a few accommodations. The following is only a sample of the possibilities available. Numerous other accommodation solutions may exist.

Questions to Consider:

1. What limitations is the employee experiencing?
2. How do these limitations affect the employee and the employee's job performance?
3. What specific job tasks are problematic as a result of these limitations?
4. What accommodations are available to reduce or eliminate these problems? Are all possible resources being used to determine possible accommodations?
5. Has the employee been consulted regarding possible accommodations?
6. Once accommodations are in place, would it be useful to meet with the employee to evaluate the effectiveness of the accommodations and to determine whether additional accommodations are needed?
7. Do supervisory personnel and employees need training?

Accommodation Ideas:

Limitations

Feeling/Sensing

- Aide/Assistant/Attendant

- Alternative Input Devices
- Alternative Keyboards
- Alternative Mice
- Anti-vibration Gloves
- Anti-vibration Tool Wraps
- Articulating Keyboard Trays
- Book Holders
- Ergonomic and Pneumatic Tools
- Expanded Keyboards
- Forearm Supports
- Grip Aids
- Keyguards
- Miniature Keyboards
- On-Screen Keyboards
- One-Handed Keyboard Software
- One-Handed Keyboards
- Page Turners
- Periodic Rest Breaks
- Scribe/Notetaker
- Speech Recognition Software
- Tool Balancers
- Writing Aids

Grasping

- Industrial
 - Anti-vibration Gloves
 - Anti-vibration Tool Wraps
 - Compact Material Handling
 - Ergonomic and Pneumatic Tools
 - Ergonomic Knives
 - Motorized Carts
 - Multi-Purpose Carts

- Tool Balancers
- Office Equipment
 - Auto-dialers
 - Automated Filing Systems
 - Book Holders
 - Compact Material Handling
 - Door Knob Grips and Handles
 - Electric Scissors
 - Ergonomic Knives
 - File Carousels
 - Filing Trays
 - Grip Aids
 - Hands-free Telephones
 - Headsets
 - Left Hand-Dominant Keyboards
 - Motorized Carts
 - One-Handed Keyboards
 - Page Turners
 - Reachers
 - Scribe/Notetaker
 - Shoulder Rests for Telephone Handsets
 - Writing Aids
- Other
 - Aide/Assistant/Attendant
 - Dental and Surgical Instruments
 - Money Handling Products
 - Mop Buckets
 - Mops and Mop Handles
 - Steering Grips

Handling/Fingering

- Industrial

- Anti-vibration Gloves
- Anti-vibration Tool Wraps
- Ergonomic and Pneumatic Tools
- Ergonomic Equipment
- Extra Grip Gloves
- Grip Aids
- Vacuum Pickup Tools
- Office Equipment
 - Alternative Input Devices
 - Alternative Keyboards
 - Alternative Mice
 - Articulating Keyboard Trays
 - Book Holders
 - Compact Material Handling
 - Ergonomic Equipment
 - Expanded Keyboards
 - Forearm Supports
 - Grip Aids
 - Keyguards
 - Miniature Keyboards
 - On-Screen Keyboards
 - One-Handed Keyboards
 - Page Turners
 - Scribe/Notetaker
 - Speech Recognition Software
 - Typing / Keyboarding Aids
 - Writing Aids
- Other
 - Aide/Assistant/Attendant
 - Money Handling Products
 - Periodic Rest Breaks

Lifting

- Agriculture/Farm
 - Animal Lift Tables
 - Carts
 - Compact Material Handling
- Industrial
 - Aerial Lifts
 - Ball Transfer Tables
 - Battery Powered Lift Tables
 - Drum Handling
 - Engine Lifts and Lift Plates
 - Lift Gates
 - Lift Tables
 - Rolling Safety Ladders
 - Stairclimbing Handtrucks
 - Truck Mounted Cranes
 - Vacuum Lifts
 - Vehicle Lifts and Manipulators
 - Work Platforms
 - Winches and Chain Hoists
- Office or Retail Goods
 - Carts
 - Compact Material Handling
 - Ergonomic Assessments
 - Ergonomic Equipment
 - Height Adjustable Table Legs
 - Low Task Chair
 - Stairclimbing Handtrucks
 - Truck Mounted Cranes
 - Vacuum Lifts
 - Vehicle Lifts and Manipulators

- Winches and Chain Hoists
 - Work Platforms
- Other
 - Drywall and Wallboard Lifts
 - Ergonomic Equipment
 - Independent Living Aids
 - Job Restructuring
 - Lifters and Carriers for Mobility Aids
 - Lifting Aids
 - Manhole Cover Lifts
 - Periodic Rest Breaks
 - Power Lift IV Stands
 - Proper Lifting Techniques
- People
 - Accessible Baby Changing Stations
 - Adult Changing Tables
 - Adjustable Exam Tables
 - Bath Chairs
 - Evacuation Devices
 - Large-Rated Wheelchair Lifts
 - Patient Lifts (General)
 - Pool Lifts
 - Powered Bath Lifts
 - Toileting Aids
 - Transfer Aids
 - Transfer Sheets
 - Walk-up Changing Tables
 - Wheelchair Lifts

Work-Related Functions

Access Information

- Adjustable Desk Top Workstations for Office Settings
- Alternative Input Devices
- Alternative Keyboards
- Alternative Mice
- Breath and Mouth Controlled Alternative Computer Input Devices
- Enlarged Keyboard Tops and Labels
- Head Controlled Alternative Computer Input Devices
- Keyguards
- On-Screen Keyboards
- One-Handed Keyboards

Manipulate Items

- Aerial Lifts
- Anti-vibration Gloves
- Anti-vibration Tool Wraps
- Auto-dialers
- Automatic Door Openers
- Compact Mobile Cranes
- Ergonomic and Pneumatic Tools
- Grip Aids
- Tool Balancers
- Vacuum Lifts
- Vacuum Pickup Tools

Work Station Access

- Adjustable and Ergonomic School Desks and Equipment
- Adjustable Desk Top Workstations for Office Settings
- Adjustable Workstations for Industrial Settings
- Anti-fatigue Matting
- Articulating Keyboard Trays
- Assist Lift Cushions
- Chair Mats

- Chairs for Little People
- Chairs for People who are Tall
- Dual Monitors
- Elevating Lift and Office Chairs
- Ergonomic and Adjustable Office Chairs
- Ergonomic Equipment
- Expanded Keyboards
- Forearm Supports
- Forward Leaning Chairs
- Large-Rated Chairs
- Monitor Mirrors
- Monitor Risers
- Mousing Surfaces
- Stand-lean Stools
- Supine Workstations
- Work Platforms
- Zero Gravity (reclining) Chairs

Situations and Solutions:

A journalist with bilateral carpal tunnel syndrome was limited to two hours of typing and writing per day.

His employer purchased writing aids and an alternative keyboard; installed speech recognition software; allowed him to take breaks throughout the day; and provided him with office equipment to rearrange his workstation.

An assembly line worker with bursitis in his knee was limited in his ability to stand.

His employer gave him a stand/lean stool, provided him with anti-fatigue matting, and purchased vibration dampening shoe inserts.

A maintenance worker with rotator cuff syndrome was having difficulty reaching cleaning areas and moving cleaning supplies.

The employer replaced his tools with long-handled, pneumatic, and lightweight tools. The employer also provided him an electric cart.

A butcher with carpal tunnel syndrome had limitations in grasping and handling tools and other objects, especially various sizes of knives.

He was accommodated with a set of ergonomic knives.

A clerical worker who stamped paperwork for several hours a day was limited in pinching and gripping due to carpal tunnel syndrome.

The individual was accommodated with adapted stamp handles. Anti-vibration wrap was placed around the stamp handles. In addition, tennis balls were cut and placed over the wrapped handles to eliminate fine motor pinching and gripping.

A sales clerk with cubital tunnel syndrome lost the ability to move her right hand.

The individual needed to use the computer to create reports. Her employer purchased a left-handed keyboard, foot mouse, forearm supports, an articulating keyboard and mouse tray, and an ergonomic chair.

A switch board operator with myofascial pain syndrome (TMJ) was having difficulty using the phone and taking messages.

The employer gave her a headset, speech recognition software, an adjustable telephone holder, writing aids, and an angled writing surface.

A truck driver with thoracic outlet syndrome was having difficulty driving for long periods of time and unloading bags at his delivery destination.

The employer installed a small crane in the back of the trailer and provided him with a lightweight aluminum hand truck to help him unload materials. The employer also provided the employee a steering wheel spinner knob to eliminate prolonged grasping of the steering wheel and an anti-vibration seat to cut down on fatigue.

Products

There are numerous products that can be used to accommodate people with limitations. JAN's Searchable Online Accommodation Resource at <http://askjan.org/soar> is designed to let users explore various accommodation options. Many product vendor lists are accessible through this system; however, JAN provides these lists and many more that are not available on the Web site upon request. Contact JAN directly if you have specific accommodation situations, are looking for products, need vendor information, or are seeking a referral.

Resources

Job Accommodation Network

West Virginia University
PO Box 6080
Morgantown, WV 26506-6080
Toll Free: (800) 526-7234
TTY: (304) 293-7186
Fax: (304) 293-5407
jan@askjan.org
<http://AskJAN.org>

The Job Accommodation Network (JAN) is a free consulting service that provides information about job accommodations, the Americans with Disabilities Act (ADA), and the employability of people with disabilities.

Office of Disability Employment Policy

200 Constitution Avenue,
NW, Room S-1303
Washington, DC 20210
Toll Free: (866) 633-7365
odep@dol.gov
<http://dol.gov/odep>

The Office of Disability Employment Policy (ODEP) is an agency within the U.S. Department of Labor. ODEP provides national leadership to increase employment opportunities for adults and youth with disabilities while striving to eliminate barriers to employment.

American Industrial Hygiene Association

3141 Fairview Park Drive,
Suite 777
Falls Church, VA 22042
Direct: (703) 849-8888
Fax: (703) 207-3561
infonet@aiha.org
<http://www.aiha.org>

AIHA promotes, protects, and enhances industrial hygienists and other occupational health, safety, and environmental professionals in their efforts to improve the health and well-being of workers, the community, and the environment.

American National Standards Institute

1899 L Street, NW, 11th Floor
Washington, DC 20036
Direct: (202) 293-8020
Fax: (202) 293-9287
info@ansi.org
<https://www.ansi.org/>

The American National Standards Institute (ANSI) enhances both the global competitiveness of U.S. business and the U.S. quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems, and safeguarding their integrity.

American Physical Therapy Association

<http://www.moveforwardpt.com/Default.aspx>

MoveForwardPT.com is the official consumer information website of the American Physical Therapy Association.

American Society for Surgery of the Hand

822 W. Washington Boulevard

Chicago, IL 60607

Direct: (312) 880-1900

Fax: (847) 384-1435

info@assh.org

<http://www.assh.org>

The mission of the American Society for Surgery of the Hand (ASSH) is to advance the science and practice of hand and upper extremity surgery through education, research and advocacy on behalf of patients and practitioners.

American Society of Safety Engineers (ASSE)

520 N. Northwest Hwy

Park Ridge, IL 60068

Direct: (847) 699-2929

customerservice@asse.org

<http://www.asse.org>

Founded in 1911, the American Society of Safety Engineers (ASSE) is the world's oldest professional safety society. ASSE promotes the expertise, leadership and commitment of its members, while providing them with professional development, advocacy and standards development. It also sets the occupational safety, health and environmental community's standards for excellence and ethics.

Arthritis Foundation

1330 W. Peachtree Street

Suite 100

Atlanta, GA 30309

Direct: (404) 872-7100

<http://www.arthritis.org>

The Arthritis Foundation is committed to raising awareness and reducing the unacceptable impact of arthritis, a disease which must be taken as seriously as other chronic diseases because of its devastating consequences. The Arthritis Foundation is leading the way to conquer the nation's leading cause of disability through increased education, outreach, research, advocacy and other vital programs and services.

MedlinePlus

8600 Rockville Pike
Bethesda, MD 20894
custserv@nlm.nih.gov
<https://www.nlm.nih.gov/medlineplus/>

MedlinePlus is the National Institutes of Health's Web site for patients and their families and friends. Produced by the National Library of Medicine, the world's largest medical library, it brings you information about diseases, conditions, and wellness issues in language you can understand. MedlinePlus offers reliable, up-to-date health information, anytime, anywhere, for free.

Created by the U.S. National Library of Medicine

National Center for Biotechnology Information

8600 Rockville Pike
Bethesda, MD 20894
pubmedcentral@ncbi.nlm.nih.gov
<http://www.ncbi.nlm.nih.gov/>

MISSION: IMS brings together an international community of health care professionals, researchers, educators, and others to improve care and transform delivery of treatment to those suffering from soft tissue pain through the promotion and exchange of globally recognized research, education, and innovation in patient care.

National Institute for Occupational Safety and Health

1150 Tusculum Ave
Cincinnati, OH 45226
Toll Free: (800) 232-4636
Direct: (513) 533-8326
Fax: (513) 533-8347
cdcinfo@cdc.gov
<http://www.cdc.gov/niosh/>

The National Institute for Occupational Safety and Health (NIOSH) was established by the Occupational Safety and Health Act of 1970. NIOSH is part of the Centers for

Disease Control and Prevention (CDC) and is the only federal Institute responsible for conducting research and making recommendations for the prevention of work-related illnesses and injuries.

National Institute of Arthritis and Musculoskeletal and Skin Diseases

1 AMS Circle
Bethesda, MD 20892-3675
Toll Free: (877) 226-4267
Direct: (301) 495-4484
Fax: (301) 718-6366
NIAMSinfo@mail.nih.gov
<http://www.niams.nih.gov>

The mission of the National Institute of Arthritis and Musculoskeletal and Skin Diseases is to support research into the causes, treatment, and prevention of arthritis and musculoskeletal and skin diseases, the training of basic and clinical scientists to carry out this research, and the dissemination of information on research progress in these diseases.

National Institute of Neurological Disorders and Stroke

P.O. Box 5801
Bethesda, MD 20824
Toll Free: (800) 352-9424
Direct: (301) 496-5751
<http://www.ninds.nih.gov>

The NINDS, an agency of the U.S. Federal Government and a component of the National Institutes of Health and the U.S. Public Health Service, is a lead agency for the congressionally designated Decade of the Brain, and the leading supporter of biomedical research on disorders of the brain and nervous system.

Occupational Safety & Health Administration

200 Constitution Avenue

NW

Washington, DC 20210

Toll Free: (800) 321-6742

<http://www.osha.gov>

The mission of the Occupational Safety and Health Administration (OSHA) is to save lives, prevent injuries, and protect the health of America's workers. To accomplish this, federal and state governments must work in partnership with the more than 100 million working men and women and their six and a half million employers who are covered by the Occupational Safety and Health Act of 1970.

OrthoInfo

9400 West Higgins Road

Rosemont, IL 60018

Direct: (847) 823-7186

Fax: (847) 823-8125

customerservice@aaos.org

<http://orthoinfo.aaos.org/main.cfm>

OrthoInfo is a trusted source of information about musculoskeletal conditions and injuries — how they are treated, as well as how they can be prevented. Our articles and videos are developed by orthopaedic surgeons who are members of the American Academy of Orthopaedic Surgeons. All of the content on our website is peer-reviewed by physician members of the *OrthoInfo* Editorial Board who are experts in their fields. This peer-review process ensures the accuracy and completeness of our content.

Professional Association of Athlete Development Specialists

<http://www.paads.org/>

PAADs mission: We are an association of professional who help athletes maximize their potential and overall well-being. Through inter-sport collaboration, we establish standards to advance the athlete development profession.

Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)

1560 Wilson Blvd
Suite 850
Arlington, VA 22209
Direct: (703) 524-6686
Fax: (703) 524-6630
info@resna.org
<http://www.resna.org/>

RESNA, the Rehabilitation Engineering and Assistive Technology Society of North America, is the premier professional organization dedicated to promoting the health and well-being of people with disabilities through increasing access to technology solutions. RESNA advances the field by offering certification, continuing education, and professional development; developing assistive technology standards; promoting research and public policy; and sponsoring forums for the exchange of information and ideas to meet the needs of our multidisciplinary constituency.

Tennis Elbow Foundation

<http://tenniselbowfoundation.org/index.html>

Understanding your elbow pain and the treatment options available will help you discuss your situation with your healthcare providers. Here you will find a resource with up-to-date medical information on the nature of tennis elbow and a description of tennis elbow treatments, along with a summary of the medical evidence behind them. You will discover the differences between lateral epicondylitis and lateral epicondylosis, and find a listing of specific scientific medical journals and information if you would like to learn more.

Tenosynovitis

info@tenosynovitis.org.uk
<http://www.tenosynovitis.org.uk/>

The Tenosynovitis website provides information on the many aspects of the tenosynovitis condition ranging from what it is, what the different types of tenosynovitis are and what causes them, what the symptoms of tenosynovitis are, how the condition can be prevented, treated and what professions are particularly at risk of their employees developing tenosynovitis.

The Hand and Wrist Institute

8929 Wilshire Blvd

Suite 320

Beverly Hills, CA 90211

Toll Free: (949) 999-6936

Direct: (310) 432-9363

Fax: (310) 432-9367

<http://www.handandwristinstitute.com/hand-wrist-elbow-conditions/>

The Hand and Wrist Institute is one of the region's leading medical practices dedicated solely to the diagnosis, treatment and care of hand, wrist and upper extremity injuries, deformities and disorders.

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