

TABLE I. Common Repetitive Strain Injuries, Primarily to Nerves (N), Tendons and Tendon Sheaths (T), Muscles (M), or Blood Vessels (V)

Disorder Name ^A	Description	Typical Job Activities
Carpal tunnel syndrome (writer's cramp, neuritis, median neuritis) (N)	The result of compression of the median nerve in the carpal tunnel of the wrist. This tunnel is an opening under the carpal ligament on the palmar side of the carpal bones. Through this tunnel pass the median nerve, the finger flexor tendons, and blood vessels. Swelling of the tendon sheaths reduces the size of the opening of the tunnel and pinches the median nerve and possibly blood vessels. The tunnel opening is also reduced if the wrist is flexed or extended, or ulnarly or radially pivoted.	buffing, grinding, polishing, sanding, assembly work, typing, keying, cashiering, playing musical instruments, surgery, packing, housekeeping, cooking, butchering, hand washing, scrubbing, hammering
Cubital tunnel syndrome (N)	Compression of the ulnar nerve below the notch of the elbow. Tingling, numbness, or pain radiating into ring or little fingers.	resting forearm near elbow on a hard surface and/or sharp edge, also when reaching over obstruction
deQuervain's syndrome (or disease) (T)	A special case of tendosynovitis that occurs in the abductor and extensor tendons of the thumb where they share a common sheath. This condition often results from combined forceful gripping and hand twisting, like in wringing cloths.	buffing, grinding, polishing, sanding, pushing, pressing, sawing, cutting, surgery, butchering, use of pliers, "turning" control such as on a motorcycle, inserting screws in holes, forceful hand wringing
Epicondylitis ("tennis elbow") (T)	Tendons attaching to the epicondyle (the lateral protrusion at the distal end of the humerus bone) become irritated. This condition is often the result of impacting or jerky throwing motions, repeated supination and pronation of the forearm, and forceful wrist extension movements. The condition is well known among tennis players, pitchers, bowlers, and people hammering. A similar irritation of the tendon attachments on the inside of the elbow is called medical epicondylitis, also known as "golfer's elbow."	turning screws, small parts assembly, hammering, meat cutting, playing musical instruments, playing tennis, pitching, bowling
Ganglion (T)	A tendon sheath swelling that is filled with synovial fluid, or a cystic tumor at the tendon sheath, or a joint membrane. The affected area swells up and causes a bump under the skin, often on the dorsal or radial side of the wrist. (Because it was in the past occasionally smashed by striking with a Bible or heavy book, it was also called a "Bible Bump.")	buffing, grinding, polishing, sanding, pushing, pressing, sawing, cutting, playing musical instruments, playing tennis, pitching, bowling
Neck tension syndrome (M)	An irritation of the levator scapulae and trapezius group of muscles of the neck, commonly occurring after repeated or sustained overhead work.	belt conveyor assembly, typing, keying, small parts assembly, packing, load carrying in hand or on shoulder
Pronator (teres) syndrome (N)	Result of compression of the median nerve in the distal third of the forearm, often where it passes through the two heads of the pronator teres muscle in the forearm; common with strenuous flexion of elbow and wrist.	soldering, buffing, grinding, polishing, sanding
Shoulder tendinitis (rotator cuff syndrome or tendinitis, supraspinatus tendinitis, subacromial bursitis, subdeltoid bursitis, partial tear of the rotator cuff) (T)	This is a shoulder disorder at the rotator cuff. The cuff consists of four tendons that fuse over the shoulder joint where they pronate and supinate the arm and help to abduct it. The rotator cuff tendons must pass through a small bony passage between the humerus and the acromion, with a bursa as cushion.	soldering, buffing, grinding, polishing, sanding → Proper terms: internal & external rotation of shoulder

TABLE I. (continued)

<i>Disorder Name^A</i>	<i>Description</i>	<i>Typical Job Activities</i>
Tendonitis (tendinitis) (T)	An inflammation of a tendon. Often associated with repeated tension, motion, bending, being in contact with a hard surface, vibration. The tendon becomes thickened, bumpy, and irregular in its surface. Tendon fibers may be frayed or torn apart. In tendons without sheaths, such as within the elbow and shoulder, the injured area may calcify.	punch press operations, assembly work, wiring, packaging, core making, use of pliers
Tendosynovitis (tenosynovitis, tendovaginitis) (T)	This disorder occurs to tendons that are inside synovial sheaths. The sheath swells. Consequently, movement of the tendon within the sheath is impeded and painful. The tendon surfaces can become irritated, rough, and bumpy. If the inflamed sheath presses progressively onto the tendon, the condition is called stenosing tendosynovitis. deQuervain's syndrome is a special case occurring in the thumb; the trigger finger condition occurs in flexors of the fingers.	buffing, grinding, polishing, sanding, punch press operation, sawing, cutting, surgery, butchering, use of pliers, "turning" control such as on a motorcycle, inserting screws in holes, forceful hand wringing
Thoracic outlet syndrome (neurovascular compression syndrome, cervicobrachial disorder, brachial plexus neuritis; costoclavicular syndrome, hyperabduction syndrome) (V,N)	A disorder resulting from compression of nerves and blood vessels between clavicle and first and second ribs, at the brachial plexus. If this neurovascular bundle is compressed by the pectoralis minor muscle, blood flow to and from the arm is reduced. This ischemic condition makes the arm numb and limits muscular activities.	buffing, grinding, polishing, sanding, overhead assembly, overhead welding, overhead painting, overhead auto repair, typing, keying, cashiering, wiring, playing musical instruments, surgery, truck driving, stacking, material handling, postal letter carrying, carrying heavy loads with extended arms
Trigger finger or thumb (T)	A special case of tendosynovitis where the tendon becomes nearly locked, so that its forced movement is not smooth but in a snapping, jerking manner. This is a special case of stenosing tendosynovitis crepitans, a condition usually found with digit flexors at the A 1 ligament.	operating finger trigger, using hand tools that have sharp edges pressing into the tissue or whose handles are too far apart for the user's hand so that the end segments of the fingers are flexed while the middle segments are straight
Ulnar nerve entrapment (Guyon tunnel syndrome) (N)	Results from the entrapment of the ulnar nerve as it passes through the Guyon tunnel in the wrist. It can occur from prolonged flexion and extension of the wrist and repeated pressure on the hypothenar eminence of the palm.	playing musical instruments, carpentering, bricklaying, use of pliers, soldering, hammering
White finger ("dead finger," Raynaud's syndrome, vibrations syndrome) (V)	Stems from insufficient blood supply bringing about noticeable blanching, (finger turns cold, numb, and tingles); sensation and control of finger movement may be lost. The condition is due to closure of the digit's arteries caused by vasospasms triggered by vibrations. A common cause is continued forceful gripping of vibrating tools, particularly in a cold environment.	chain sawing, jack hammering, use of vibrating tool, sanding, paint scraping, using tool too small for the hand, often in a cold environment
Ulnar artery aneurysm	Weakening of a section of the wall of the ulnar artery as it passes through the Guyon tunnel in the wrist; often from pounding or pushing with heel of the hand. The resulting "bubble" presses on the ulnar nerve in the Guyon tunnel.	assembly work

^AN = nerve; T = tendon; M = muscle; V = vessel disorders.