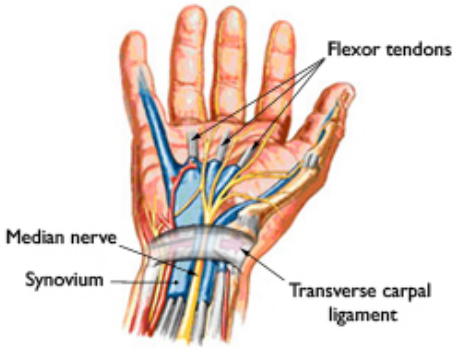
WHAT ARE REPETITIVE STRESS/CUMULATIVE TRAUMA INJURIES AND HOW DO YOU WIN A LAWSUIT AGAINST YOUR INTERSTATE RAILROAD EMPLOYER IF YOU'VE SUFFERED THIS TYPE OF INJURY ON THE JOB?

Work related repetitive stress (also known as cumulative trauma injuries)first gained notoriety when a connection was made between office workers who do a lot of typing and their development of wrist/hand pain. What exactly are repetitive stress/cumulative trauma injuries?

Carpal Tunnel Syndrome

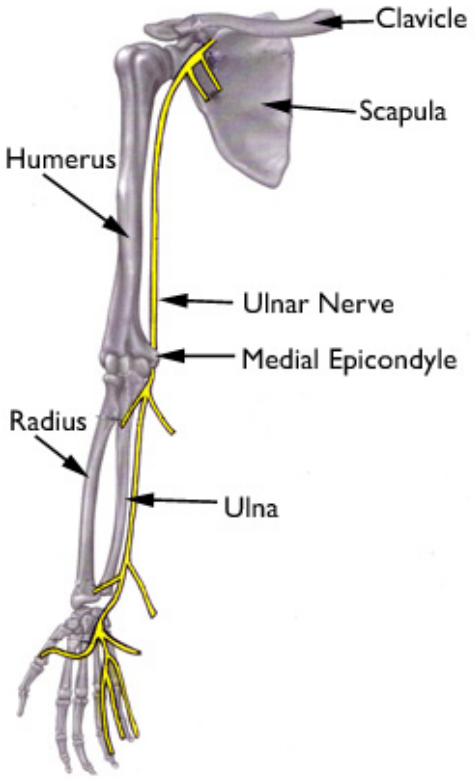
The wrist is surrounded by a band of fibrous tissue that normally functions as a support for the joint. The tight space between this fibrous band and the wrist bone is called the carpal tunnel. The **median nerve** passes through the carpal tunnel to receive sensations from the thumb, index, and middle fingers of the hand. Any condition that causes swelling or a change in position of the tissue within the carpal tunnel can squeeze and irritate the median nerve. Irritation of the median nerve in this manner causes tingling and numbness of the thumb, index, and the middle fingers -- a condition known as "carpal tunnel syndrome."



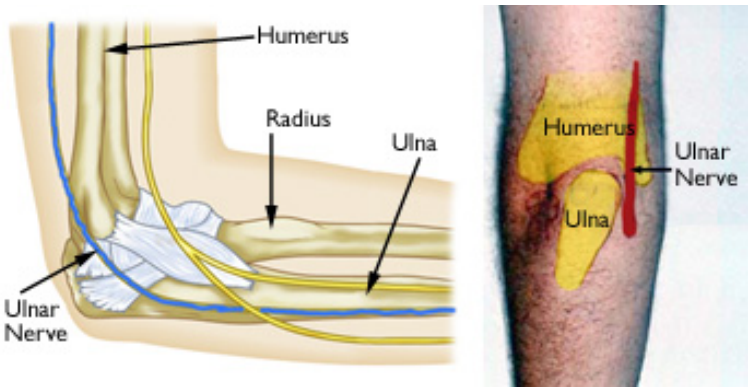
Carpal tunnel syndrome can be made worse if the wrist is overextended repeatedly. Repeated motion of your wrist contributes to swelling and compression of the median nerve. This may be the result of:poor positioning of your wrists while using your keyboard or mouse; prolonged exposure to vibrations from using hand tools or power tools; or, any repeated movement that overextends your wrist, such as playing the piano or typing.

Cubital Tunnel Syndrome

The **ulnar nerve** is one of the three main nerves in your arm. It travels from your neck down into your hand, and can be constricted/compressed or irritated in several places along the way. Depending upon where it occurs, this pressure on the nerve can cause numbness or pain in your elbow, hand, wrist, or fingers. Sometimes the ulnar nerve gets compressed at the wrist, beneath the collarbone, or as it comes out of the spinal cord in the neck. The most common place where the nerve gets compressed is behind the elbow. When the nerve compression occurs at the elbow, it is called cubital tunnel syndrome.



At the elbow, the ulnar nerve travels through a tunnel of tissue (the cubital tunnel) that runs under a bump of bone at the inside of your elbow. This bony bump is called the medial epicondyle. The spot where the nerve runs under the medial epicondyle is commonly referred to as the "funny bone." At the funny bone, the nerve is close to your skin and bumping it causes a shock-like feeling.

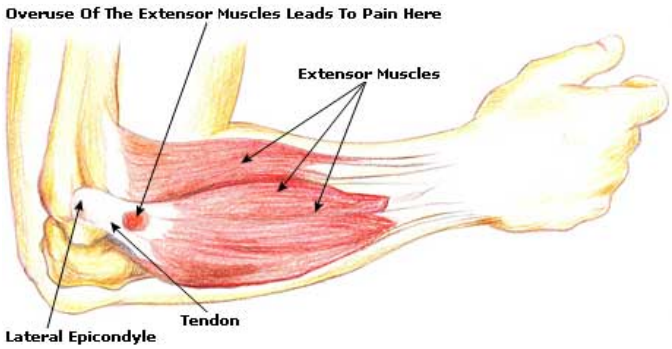


Cubital tunnel syndrome can cause an aching pain on the inside of the elbow. Most of the symptoms, however, occur in your hand.Numbness and tingling in the ring finger and little finger are common symptoms of ulnar nerve entrapment. Ulnar nerve entrapment can give symptoms of "falling asleep" in the ring finger and little finger, especially when your elbow is bent. In some cases, it may be harder to move your fingers in and out, or to manipulate objects.Weakening of the grip and difficulty with finger coordination (such as typing or playing an instrument) may occur. These symptoms are usually seen in more severe cases of nerve compression.

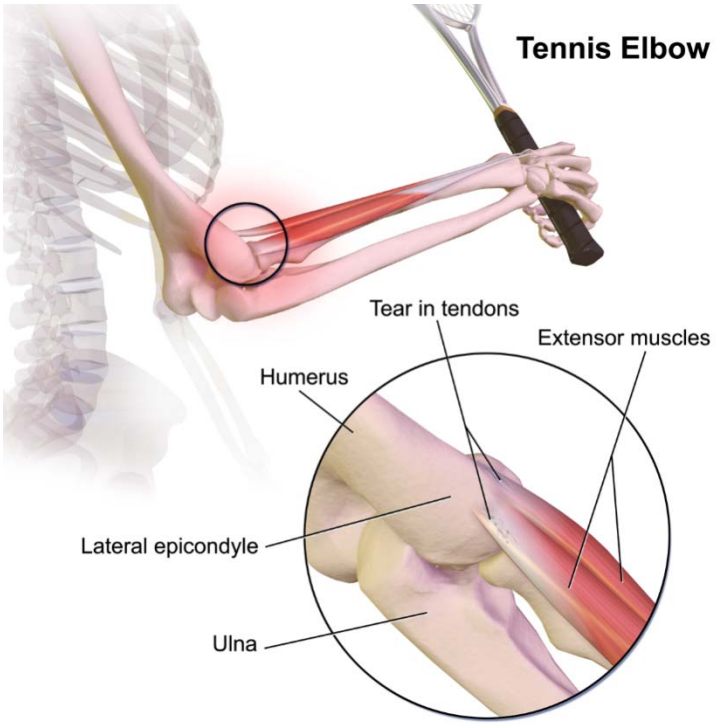
Lateral Epicondylitis (aka “tennis elbow”)

Lateral Epicondylitis is a classic repetitive stress injuryand the most commonly encountered overuse syndrome involving the elbow. It is commonly seen in patients performing repetitive: flexion and extension of the elbow; wrist extension, supination; heavy lifting; and/or excessive gripping.

The forearm tendons, often called extensors, attach the muscles to the lateral epicondyle. Lateral Epicondylitis involves an inflammation of the tendons that join the forearm muscles on the outside of the elbow. The forearm muscles extend your wrist and fingers. The forearm muscles and tendons (i.e. Extensor tendon) can become damaged from overuse, repeating the same motions again and again. This leads to pain and tenderness on the outside of the elbow.



The lateral elbow is a frequent site of work and sports-related overuse injuries. Many people with Lateral Epicondylitis participate in work or recreational activities that require repetitive and vigorous use of the forearm muscle. While Lateral Epicondylitis is overwhelmingly encountered in the workplace, it is popularly associated with tennis and is thus often referred to as “tennis elbow”.

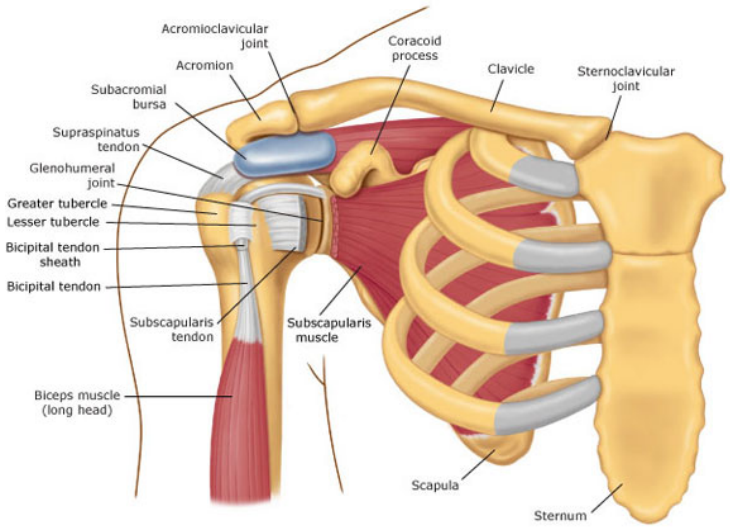


There is no set number of repetitions (“dose response”) that will cause the development of Lateral Epicondylitis and/or a torn Extensor tendon. Each person’s tolerance level will vary in terms of how much repetition they can tolerate. Normally, you can move, flex and extend your elbow without developing Lateral Epicondylitis or a torn Extensor tendon. However, if you

exceed whatever the amount of force is that your body can withstand, then you may develop Lateral Epicondylitis and/or a torn Extensor tendon.

Shoulder Injuries

Rotator cuff injuries are some of the most common shoulder injuries. When you tear the tendons that connect the muscles to the bones in the shoulder joint, you injure your rotator cuff. The rotator cuff consists of four tendons and muscles that are grouped around the shoulder joint at the top of the upper arm bone, the Humerus. Together, they form a ''cuff'' that holds your arm in place and permits movement in different directions.

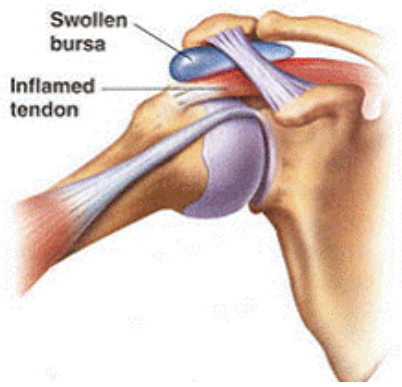


Too much physical stress from repeated or excessive use can cause tears and swelling in the tendons of the rotator cuff. Physical stress can even cause one of the tendons to pull away from the bone or tear in the middle of the tendon. Repetitive overhead activity, heavy lifting over a prolonged period of time, and the development of bone spurs in the bones around the shoulder may irritate or damage the tendon.

Most people do not recover their full range of motion after a rotator cuff injury. They may experience this as temporary frozen shoulder or as a permanent disability.

Shoulder impingement syndrome

Many patients who have shoulder pain suffer from shoulder impingement syndrome. It occurs when there is impingement of tendons or bursa in the shoulder from bones of the shoulder. Overhead activity involving use of the shoulder, especially repeated activity, is a known risk factor for shoulder impingement syndrome.



Individuals with impingement syndrome experience persistent pain which can affect everyday activities. Over the course of time, impingement syndrome can lead to inflammation of the rotator cuff tendons (tendinitis) and bursa (bursitis). The rotator cuff tendons can start to wear thin and tear, if not treated appropriately.

How Do You Win A Repetitive Stress/Cumulative Trauma Injury Case Against Your Interstate Railroad Employer?

Proving a connection (causal relationship) between injuries such as carpal tunnel syndrome and the work place can be challenging. It is necessary to work closely with ergonomic specialists and orthopedic surgeons to establish a connection between the repetitive stress/cumulative trauma and the work place.

The term "ergonomics" is derived from two Greek words: "ergon," meaning work, and "nomoi," meaning natural laws. Ergonomists study human capabilities in relationship to work demands.An ergonomic risk factor is a physical, environmental, or psychosocial factor that individually or in combination with other risk factors has been found by epidemiological, medical, physiological, biomechanical and ergonomic research to be significantly associated with the

increased rate of development of musculoskeletal or cumulative trauma injuries or disorders of the hard and soft tissues of the musculoskeletal system.

Ergonomic stressors include force, posture, repetition, temperature and vibration. These stressors can be quantitatively evaluated to determine their magnitude and relative contribution to injury risk.

Individual ergonomic risk factors have the potential to lead to acute (single event) and cumulative injury (over time), but they are most often found in combination, and in combination their adverse acute and cumulative effects are far greater and can lead to injuries at much lower levels of exposure.

It is well-established that cumulative exposures as well as "low level acute" exposures to ergonomic risk factors can lead to damage to the hard and soft tissues, injuries that can lead to degenerative changes, lower tissue "safety ranges" and subsequent tissue failure at levels of exertion that might normally be tolerated and without a particularly memorable onset event.

Working With An Ergonomist:

In order to win this type of case, it's necessary to prove the employee was exposed to a work environment containing ergonomic risk factors that are known in the medical and scientific community to cause repetitive stress injuries. Ergonomists use a variety of techniques that are commonly accepted in the scientific, medical and legal communities to evaluate the work place to identify ergonomic risk factors. Such an evaluation should be conducted when litigating a repetitive stress injury claim. The more data that can be collected from the injury victim's work place, the stronger the argument that the condition was caused, in whole or in part, by the work place.

Over the last twenty-five years, the railroad industry went from a state of enlightenment about the science of ergonomics, to a state of total denial. The railroad industry usually argues in repetitive stress/cumulative trauma litigation that ergonomics is, in essence, junk science. It has also been my experience that, in defense, railroads will erect as many road blocks as they can to prevent an injury victim's ergonomic expert from collecting relevant data. Then, they make pre-trial motions to prevent the ergonomic testimony of the injury victim's ergonomic expert from being heard by the jury, by arguing the expert lacks

sufficient dataabout the injured employee's work duties and employment environment to support the claim. The injured employee's lawyer must be prepared for this defense tactic and must be prepared to expend a significant amount of professional time and money to survive pre-trial discovery obstruction and the pre-trial motion phase and be ready to prove the case at trial.

The benefit of having hired an ergonomic expert to conduct an ergonomic evaluation of the injured worker's job duties is that, at trial, the employee can offer expert opinion testimony from the ergonomist that establishes the fact that the injured employee was exposed to a work environment that can cause repetitive stress/cumulative trauma injuries (this is called general causation proof). However, the courts will not allow an ergonomic expert to express an opinion on specific causation….meaning, the ergonomist won't be permitted to state an opinion that the employee's repetitive stress injury was caused by his/her railroad work environment.

Once the injured employee has proof that he/she was exposed at work to ergonomic risk factors that are known to cause the injury in question, it is necessary to prove that the railroad employer was negligent in exposing the employee to ergonomic risk factors that can lead to a repetitive stress/cumulative trauma injury. This usually requires the employee's lawyer, among other things, to take pre-trial testimony from railroad management to establish that: the railroad knew about ergonomic risk factors; failed to take reasonable steps to evaluate the injured employee's work environment; and, failed to take reasonable steps to reduce the risk that the employee would suffer injury.

Once you have proof of the employee's exposure to ergonomic risk factors at work as well as the employer's negligence, it is still necessary to prove that the railroad's conduct specifically caused the claimed injury. Only a medical doctor can give an opinion on "specific causation." In order to reach the conclusion that the patient's condition was caused, in whole or in part, by his/her railroad job, the doctor needs to learn from the patient, among other things: the history of when the symptoms appeared; and, the physical requirements and nature of the job. Typically, the doctor would be provided with a job description obtained from the defendant railroad. If video of the job being performed is available, that is extremely helpful. This usually requires the injured employee's lawyer to seek a

demonstration by a railroad employee, typically by obtaining a court order requiring the railroad to provide the demonstration.

For a doctor to express an admissible opinion on specific causation, the doctor must use a differential diagnostic technique that considers all potential causes of the employee's condition/injury. By considering and ruling out alternative explanations for the condition/injury, the doctor can establish a proper basis for his/her opinion as to what specifically caused the condition/injury.

Under the Federal Employers' Liability Act, 45 U.S.C. §51, et seq., the federal railroad law that permits injured interstate railroad employees to seek compensation in court for their injuries from their railroad employer, it is not necessary to prove that the repetitive stress/cumulative trauma injury was solely caused by the work environment. It is only necessary to prove that the work environment was a contributing factor, no matter how slight. Hardyman v. Norfolk & W. Ry. Co., 243 F.3d 255, 259 (CA6 2001), citing to Rogers v. Missouri Pac. R.R. Co., 352 U.S. 500, 506-07 (1957).

The U.S. Supreme Court held in Daubert v. Merrell Dow Pharms., 509 U.S. 579, 113 S. Ct. 2786, 2797, 125 L. Ed. 2d 469 (U.S. 1993), that federal district court trial judges are the "gatekeepers" of expert testimony. There is no hard and fast rule that federal judges must apply that will produce the same result, regardless of who the judge may be, when deciding a motion to preclude an ergonomist from testifying.

Two examples of how this can play out can be found in decisions by two federal district court judges in the Southern District of New York involving the same ergonomic expert. In Pretter v. Metro North Commuter Railroad Company, 206 F.Supp.2d 601 (SDNY 2002), the opinions Dr. Robert Andres' were precluded by Judge Jed S. Rakoff because:

- The opinions were expressed "to be matters of 'scientific certainty,'" and therefore "calculated to confuse and mislead the jury."
- The remaining opinion ("1. The jobs performed by these 15 plaintiffs exposed them to sufficient amounts of the documented ergonomic risk factors for the upper extremity [force, repetition, awkward posture, mechanical stress concentrations, and vibration] to be consistent with the

development of CTS [i.e., Carpal Tunnel Syndrome]") was rejected by Judge Rakoff as vague, related to "imprecise methodology and inadequate investigation," and related to Dr. Andres' failure to define with specificity the ergonomic risk factors of frequent repetitions and the exertion of high levels of force, and a failure to offer "any objectively measured evidence of the frequency with which Metro North employees repeated their job function or the levels of force they employed."

The decision by Judge Rakoffto preclude Dr. Andres' testimony is sharply contrasted by the recent decision of Judge Alison J. Nathanin Hewitt v. Metro-North Commuter Railroad (Case 14-cv-08052-AJN-RLE), where the Court concluded that Dr. Andres' opinions are sufficiently reliable to be admissible. Judge Nathan ruled that:

- "There is a "wealth of research" and scientific literature supporting "the general theory that exposure to recognized ergonomic risk factors" can cause certain injuries;
- "That ergonomic risk factors exist in a certain occupations and that known remedial measures alleviate such risks has been widely described and accepted in the scientific community;
- "Dr. Andres' report employs multiple methodologies that are generally accepted in the field of ergonomics. For example, Dr. Andres utilized the "NIOSH lifting equation" when analyzing Hewitt's exposure to ergonomic risk factors, which has been accepted by district courts as reliable;" "Dr. Andres also conducted a Rapid Upper Limb Assessment ("RULA"), another methodology considered reliable in the field of ergonomics.: "Although Metro-North quibbles with Dr. Andres' application of these formulas to the facts of this case, "[a]ny limitations weaknesses of [Dr. Andres'] use ofthe[se] formula can be adequately addressed during both direct and cross-examination and grasped by a jury."
- "In addition to raising the arguments discussed and rejected in the previous section, Metro-North contends that Dr. Andres' methodology lacked sufficient quantitative analysis to be reliable. According to Metro-North, Dr. Andres analyses were "entirely non-quantitative," not based on "measurements of equipment or of plaintiff," and lacked "any objectively

measured evidenced [sic] of the frequency with which Metro North employees repeated their job functions or the levels of force they employed."

- The Court finds Metro-North's argument unpersuasive for two reasons. First, Dr. Andres' methodology is not entirely devoid of quantitative analysis. Dr. Andres relied upon Hewitt's testimony and descriptions of his job to determine, chart, and tabulate the frequency with which Hewitt performed tasks associated with ergonomic risk factors. He also calculated and sketched several awkward body postures that Hewitt experienced while working at Metro-North. Furthermore, he employed the NIOSH lifting equation discussed above. Additionally, Dr. Andres calculated "posture scores" for various tasks that Hewitt performed while working as a coach cleaner. Second, even if Dr. Andres' methodologies were "non-quantitative" as Metro-Northcontends, the Court is not persuaded that this would render his opinion wholly inadmissible. In sum, although Metro-North identifies several purported deficiencies in Dr. Andres' methodology, the Court finds his opinions sufficiently grounded in the accepted scientific field of ergonomics as to be admissible. Daubert is a "liberal" and "permissive" standard of admissibility."
- "Dr. Andres May Testify About Metro-North's Lack of an Ergonomics Mitigation Program. In addition to analyzing Hewitt's job for ergonomic risk factors, Dr. Andres also reviewed Metro-North's approach to ergonomic risk factor mitigation. In his report, Dr. Andres identified a number of actions that a reasonable railroad could take to lessen the likelihood of employee injuries. According to Dr. Andres, those steps include "[p]erforming an ergonomic screening or job analysis," "[i]mplementing engineering (preferably) or administrative controls to decrease worker exposure to ergonomic risk factors," and "[a]dminister[ing] ... ergonomic training." Dr. Andres also concluded that, based upon his review of the materials provided to him, Metro-North did not take these actions.
- Metro-North contends that this proffered testimony should be excluded. According to Metro-North, there is no "generally accepted corporate practice" or standard benchmark ergonomics program, as organizations such as the Occupational Safety and Health Administration (OSHA), the

United States General Accounting Office, and the American Association of Railroads, have failed to adopt an industry-wide standard. Because of this, Metro-North seeks preclusion of Dr. Andres' "general ergonomic opinion regarding Metro-North's alleged lack of an ergonomic program and testimony concerning OSHA or OSHA rules and/or literature and General Accounting Office."

- The Court finds this argument unpersuasive. As noted, it is widely accepted in the scientific community that ergonomic risk factors exist in certain occupations. More importantly for purposes of Metro-North's argument, it is also widely accepted that "known remedial measures" and "corrective actions" exist to "address [these] ergonomic risk factors." Although the fact that no organization such as OSHA has adopted a recommended or standardized ergonomics mitigation program may undermine Dr. Andres' conclusion that Metro-North failed to take reasonable steps to mitigate Hewitt's exposure to ergonomic risk factors, the absence of such a program does not, by itself, render his opinion inadmissible in light of the various scientific literature supporting Dr. Andres conclusion that a company can take certain remedial measures to mitigate ergonomic risk factors.
- The Court Will Preclude Testimony Regarding "Legal Conclusions" Although the Court concludes that Dr. Andres' testimony is generally admissible under Daubert, the Court will preclude one aspect of Dr. Andres' proposed testimony. Dr. Andres may not testify as to any "legal conclusions," such as causation or negligence.

Conclusion

Repetitive Stress/Cumulative Trauma injury claims can be successfully litigated by injured interstate railroad workers. These cases require a substantial amount of professional time and economic resources to be successful. Both the injured employee and his/her attorney, who should have experience handling these types of cases, should be prepared for a lengthy battle. Retention of a well-qualified ergonomic expert is a must. The treating orthopedist will have to be willing to participate in the litigation process, which will likely include: reviewing evidence; preparation of a detailed narrative report; and, giving pre-trial testimony and trial testimony.

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March 2017