



Shoulder Injuries in the Absence of Single Episode Trauma

By: Gary Majesky, *WSIB Consultant*



This month I want to revisit shoulder injuries in the absence of single episode trauma. My last article on this subject was in 2007, which I've used extensively, but with the influx of new members, including our Brothers and Sisters in the North & East, we need to have another conversation regarding Shoulder injuries which are a common injury that electricians develop as a gradual onset.

"The Medical Evidence is clear - Overhead Work is a Significant Contributing Factor in the Development of Degenerative Shoulder Pathology & Tendon Tears"

No matter how much I lecture on the subject, many members still believe that unless they've fallen off a ladder or have an immediate onset, they didn't have a work accident. Before reading further, it's time to hit the re-set button because gradual onset injuries, called disablements, are recognized under the law as work injuries. Cumulative injuries, like acoustic trauma (deafness) or asbestos exposure, happen over many years. It's the same principle with repetitive or overhead work.

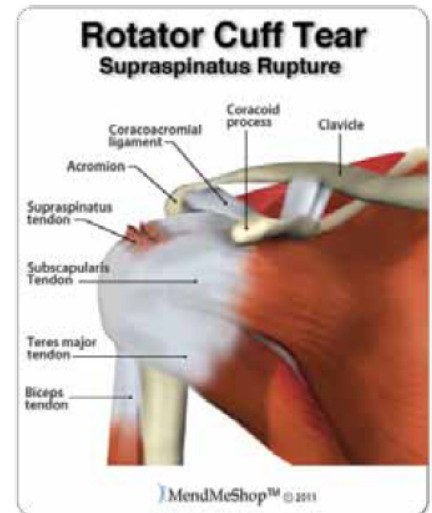
Its old news that the WSIB has become more stingy and denying claims on the basis that the injury pathology is not work

related. These chicken and egg debates are frustrating, but less so when dealing with certain types of cumulative trauma injuries. Take for instance shoulder injuries (and Carpel Tunnel Syndrome).

Recently a Brother who resides in Barrie has been working with me on a shoulder injury claim. There is a dispute regarding the pathogenesis of the shoulder injury, the timing of the onset, and who the accident employer of record is. These adjudicative inquiries become a smokescreen because the WSIB is looking for an accident employer to charge, which can be complicated because many members work in a multi-employer environment and move around, so it's difficult to say who exactly the accident employer of record is. Each employer says it's not them, but another employer. And on and on it goes. Regardless of this endless debate, if a worker has a medically documented work related injury, than the workers claim should be adjudicated on the medical merits, not wallet politics (who pays).

Since my shoulder article 6 years ago, Local 353 released our **Electrician Ergonomic Research Study** that is used extensively when litigating WSIB claims. It has served its purpose by informing health care professionals and decision makers on the physical demands of electrical work, and cited extensively in appeal decisions (see citation below).

In support of our members WSIB appeal; I believed we needed a medical opinion from the treating Orthopaedic Surgeon, Dr. M. Bushuk. However, I also wanted Dr. Bushuk to review and comment on the medical opinion of Dr. Hans Uthoff who is the author of a Tribunal Medical Discussion Paper: **Shoulder Injury and Disability**, and to review our **Electrician**



Ergonomic Research Study when he formulated his opinion on the issue of work related causation re overhead work.

The employer representative in this appeal had argued that our member had a major pre-existing condition but failed to address the fact that a congenital abnormality does not preclude entitlement as these types of pre-existing conditions fall under the thin skull doctrine. According Dr. Bushuk, the worker had the same congenital abnormalities in his left shoulder, which didn't present an adjudicative problem for the WSIB in 2002, when they accepted his other shoulder claim, along with a permanent impairment. In discussing the pre-existing condition, Dr. Bushuk's analysis also addresses the legal issue of *sole vs. multiple* factors in an injury onset, which I discussed in my June 2013 article. Dr. Bushuk states:

Although this man's anatomy likely is a factor as to why he developed problems with chronic rotator cuff tendinitis and impingement syndrome, as



well as [a] component of aging and gradual degeneration of the tendon, in my opinion, undoubtedly, the work this man had done as an industrial/commercial electrician for over 30 years, working hard, above shoulder height and pulling heavy cable, is likely the major factor why he has gone on to develop a tear in his rotator cuff and chronic degenerative change.

Dr. Bushuk's medical opinion supports the causal relationship between repetitive overhead work and an electrician developing structural abnormalities and symptomology in the shoulder. Furthermore, Dr. Bushuk reviewed, and agreed, with Dr. Uhthoff's medical opinion in the Tribunal Medical Discussion Paper (Shoulder Injuries) where he postulates:

There is definitely a strong relationship. However, since most partial tears and complete tears occur in middle age and in persons with preexisting degenerative changes, causing weakness and tension of tendon

must have contributed. As already stated, certain repetitive movement required by work can accelerate the development of degenerative changes. This raises the question of the importance of pre-existing conditions which in certain workers can be actively related. Therefore, there is a strong correlation between shoulder disorder and partial complete tears.

The union has argued in this members appeal that the WSIB failed to adhere to evidence based decision making eschewed by the WSIB, by ignoring epidemiological evidence that overhead work and certain shoulder conditions are medically compatible. Dr. Bushuk unequivocally agreed with Dr. Hans Uhthoff, regarding "Rotator Cuff Tears" and that the:

Degenerative process inside the rotator cuff can be made worse by repetitive activities with hands at shoulder level or above it or by operating vibrating tools. Such activities when performed repeatedly over a period lasting months and years may also affect the acromioclavicular

joint leading to joint degenerative and the formation of osteophytes.

Dr. Bushuk also reviewed 2 important seed documents. They were the booklet entitled "Electrician Ergonomic Research Study 2006" and the "WCB Work Site Analysis Report for an Electrician" dated September 25, 1992. Under the section Heavy Cable Work on Page 16 of the Electrician Ergonomic Research Study 2006, it outlines that electricians working with heavy cable are predisposed to shoulder injuries and lumbar spine injuries. Dr. Bushuk states "this is understandable."

I hope this article assists the members in better understanding shoulder related injuries. And be careful what you first report to a doctor, because these admissions do come back to haunt, particularly non-work related activities like rolling over in bed or tossing a baseball, because these will be deemed non-compensable intervening events.

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Recent Quote from a WSIB Appeal Resolution Officer Decision

The union has prepared a 70 page document Understanding the Physical Demands of an Electrician's Job. This study was also prepared in collaboration with the Occupational Health Clinics for Ontario Workers and addresses the question of different musculoskeletal injuries and work related causation.

It is recognized and well documented in the 70 page Union document that injuries to the shoulder, for example, may occur from continuous application of a load resulting in an individual's tissue tolerance deteriorating over time. A musculoskeletal disorder may cause pain, inflammation, reduce mobility as well as other symptoms.

The document outlines that medical evidence does suggest that repeated or sustained shoulder flexion and abduction greater than 60 degrees from neutral is positively associated with shoulder musculoskeletal disorders and shoulder tendonitis.

When the shoulder nears its end range of motion (ROM) in overhead work settings, stretching and compression of tendons and nerves limit blood flow to the joint and damaging tissues. The American Academy of Orthopaedic Surgeons (2002) does list repetitive lifting and overhead work as the main risk factor for incurring shoulder impingement.

Shoulder tendonitis is the inflammation of the tendon of the shoulder. Shoulder elevation and external forces acting on the shoulder, impair circulation to the rotator-cuff causing the tendon to degenerate and inflame. Circulation of the tendon also decreases and a greater force is applied to the shoulder joint.

The Electrician Ergonomic Study concludes that repeated elevation and sustained elevated postures can lead to degenerative tendonitis in the shoulder. As such four main risk factors associated with the development of shoulder injuries include static loading, insufficient rest, vibration and lack of non-neutral postures.