WCAT Decision Number: WCAT-2008-01818
WCAT Decision Date: June 19, 2008
Panel: Cynthia J. Katramadakis, Vice Chair

Introduction

On October 26, 2006, this then 46-year-old telephone adjuster submitted an application for compensation claiming a gradual onset on bilateral wrist and hand symptoms, which she attributed to increased computer and telephone duties.

By way of a December 20, 2006 decision letter, a case manager with the Workers' Compensation Board, now operating as WorkSafeBC (Board), denied the claim for the diagnosed conditions of bilateral wrist tendonitis and bilateral de Quervain's tenosynovitis on the basis that neither condition arose out of and in the course of employment nor were they due to the nature of the employment; a decision confirmed by the Review Division on June 22, 2007.

The worker appealed to the Workers' Compensation Appeal Tribunal (WCAT) seeking acceptance of her claim as either a personal injury or occupational disease.

The worker is represented in her appeal by her union. The employer did not participate in the appeal, although advised of its right to do so.

Issue(s)

The issue on this appeal is whether the worker's diagnosed bilateral wrist tendonitis and bilateral de Quervain's tenosynovitis are compensable as either a personal injury or occupational disease.

Jurisdiction

The appeal of the Review Division decision is brought under section 239(1) of the *Workers Compensation Act* (Act) which permits appeals from Review Division decisions to WCAT, subject to the exceptions set out in section 239(2) of the Act.

On appeal WCAT can confirm, vary or cancel an appealed decision (section 253(1) of the Act). WCAT may inquire into, hear and determine all those matters and questions of fact, law and discretion arising or required to be determined in an appeal (sections 250 and 254 of the Act). WCAT must make its decision based on the merits and justice of the case, but, in so doing, must apply policy of the Board's board of directors that is applicable in the case.

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Background and Evidence

As noted, at the relevant time of her claim, the worker had been employed as a telephone adjuster. She had been in this position since 1999 save for a period from 2004 to 2006 when she was transferred to web-based claims. On February 12, 2006, she returned to telephone-based claims. She reported that her hands and wrists became very sore by February 28, 2006, which she attributed the increased computer and telephone work compared to the duties she had performed with web-based claims. She had also just finished working consecutive shifts, which did not allow her wrists to rest. As a telephone adjuster, the worker stated that her main duties involved taking claims over the phone, which required extensive computer mousing and typing in order to take caller information. Upon her move back to telephone adjuster, she inherited a new desk and new work schedule. She was allowed a five-minute break during a six-hour shift. She denied any traumatic incident.

The worker reported first experiencing left wrist symptoms in 2001, which would improve with days off and vacation. Subsequently, she developed right wrist problems and in response, her employer moved her to web-based claims in February 2004 in order to reduce the amount of keyboarding and mousing. She stated that this helped tremendously and her symptoms lessened immediately.

A physician's progress report from Dr. Harris, attending physician, dated July 19, 2006, documented that the worker had prior wrist problems in 2001 and 2004. Dr. Harris diagnosed tenosynovitis of the hands and wrists. He noted the worker had requested a referral to a hand clinic because her left wrist was still painful though her right wrist was better. Dr. Harris documented the worker's complaints of numbness at night, and pain with certain activities.

In correspondence dated November 7, 2006, the employer outlined a history of the worker's wrist symptoms, which included the following:

- On April 1999, the worker was transferred to the telephone claims department.

- On November 17, 1999, the worker complained of sore wrists. An ergonomic assessment was done with some adjustments made. The worker reported feeling better.

- On April 14, 2001, an accident investigation report was completed for right forearm tendonitis, and wrist and thumb pain. The form indicated that the symptoms had started a month prior. The worker reported pain with typing and also reported shoulder pain. Further ergonomic assessments were done.

- On February 6, 2004, the employer received a sick leave form from the worker, which reported that she had bilateral tendonitis and had permanent restrictions

pertaining to less keyboarding. The worker requested a transfer to web-based claims, which involved less typing.

- From July 31, 2004 to January 27, 2005, the worker experienced symptoms relating to injuries involving her left wrist, neck, and upper back because of a motor vehicle accident.

- In May 2005, the worker reported right shoulder pain due to the motor vehicle accident. She also reported wrist tendonitis, left greater than right. There were multiple ergonomic assessments performed, and the worker obtained a new chair.

- On August 31, 2005, the employer received an e-mail from the worker stating that increased work hours had aggravated her neck, shoulders as well as left and right wrist tendonitis. The worker was given a tracker-ball mouse and chair adjustments were made. The worker reported this helped decrease the pain.

- On January 18, 2006, the worker submitted a sick leave form stating that her bilateral wrist tendonitis started in February 2001. The form indicated the condition was permanent and disabling, and aggravated by typing. The worker's physician recommended that keyboarding be restricted to 6 hours a day for a maximum of 18 hours per week with ongoing ergonomic assessments and frequent breaks.

- On February 28, 2006, the worker's manager sent an e-mail indicating that the worker had been on web-based claims, which required less keyboarding; however, she was now doing telephone claims on a regular basis.

- On March 26, 2006, the worker went off work and applied for long-term disability benefits.

Medical records obtained from another attending physician document a visit with the worker on February 23, 2006. The worker requested a medical form be completed. The worker reported that her work schedule changed to four shifts of four hours each; however, this aggravated her back and wrists because of the driving. The worker wished to return to three shifts per week, six hours each but needed a medical note for the same.

The worker next saw the attending physician on April 14, 2006. She complained of worsening pain with scheduling changes at work. The attending physician diagnosed chronic tendonitis, chronic exacerbated by the changes at work.

Chart notes obtained from Dr. Harris indicate that when seen on March 20, 2006, the worker's wrist had not improved with rest. The worker was seeing a physiotherapist at the Hand Clinic.

As part of the adjudication of the claim, the case manager conducted a work site assessment on December 7, 2006. The assessment included photographs taken of the worker demonstrating postures while using a regular mouse, a roller-ball mouse, a regular keyboard, and a split keyboard. The report that followed provided the following information:

- The worker worked for two years in web-based claims rather than telephone claims. Web-based claims were more self-paced than working a telephone queue.

- The worker reported some improvement when in web-based claims but by 2004 she reported a gradual deterioration in her condition.

- She stated that her symptoms increased when transferred back to telephone claims.

- The mouse was used to toggle between systems and within systems to change fields. Tab and directional arrows could also be used but the worker indicated she mostly used the mouse.

- Telephone adjusting was done with a client on the telephone. Information was entered after discussion with a client and/or when taking information from other systems.

- Most information entered was 5 to 20 characters long, normally alpha but also numeric. When entering numbers, the worker used her right hand. She used a numeric keypad from 1999 to 2005. She then changed keyboards to one that did not have a numeric keypad.

- Keying was intermittent and not constant. A short narrative was taken on most claims and this was done with pauses while obtaining information and looking up information or listening to clients.

- The work involved frequently repetitive use of the hands for light or no force keying or mousing with wrists well within neutral postures.

- There were frequent 5 to 30 second pauses in keying and mouse work with hands at rest.

- Awkward wrist postures were not observed or described in any plane.

- Keying activity was well under 200 per minute; and therefore was not frequently repetitive.

- The worker performed frequently repetitive low force and no force wrist movements well within neutral postures.

- The worker alternated the mouse between the left and right hand depending upon symptoms. On either side, the palm rested on the mouse so there was no load on the wrist.

- There were occasional static and non-awkward right wrist postures when entering on the numeric keypad.

- There was no forceful gripping, no vibration, jarring or mechanical stresses on the hands or wrists.

- There was increased keying and mousing when the worker switched to telephone claims, but she also worked reduced work week.

Shift information received from the employer indicated that from 1999 to 2006 the worker, on average, worked 2.5 shifts per week. Shifts were generally six hours in length. From January 1 to March 20, 2006, the worker averaged three shifts per week with most shifts six hours long.

A claim log memo dated December 15, 2006 documented a Board medical advisor's (BMA) opinion. The BMA noted that chart notes received from Dr. Harris revealed complaints of left wrist pain since 2000. The left wrist pain became chronic but not worse after a motor vehicle accident in 2004. Regarding occupational risk factors identified at the time of the work site visit, the BMA concluded that the described work activities did not demonstrate a significant combination of forceful work, repetition, extremes of posture, or local mechanical stress. Therefore, it was less than 50% likely that the work activities stressed the tissues involved in the diagnosed conditions.

In a consult report dated April 5, 2007, Dr. Kester, plastic and reconstructive surgeon, noted that the worker provided a history of symptoms consistent with de Quervain's tenosynovitis and epicondylitis. Dr. Kester advised that the worker had returned to work in February 2007 with attempts at various voice-activated software. The worker indicated that the mousing activity gave her the most discomfort. On examination, the worker demonstrated full range of motion at the elbow and wrist, with no obvious swelling. Dr. Kester recommended splinting and avoidance of repetitive motions.

The BMA reviewed Dr. Kester's report and provided a further opinion, set out in a claim log memo of April 13, 2007. The BMA concluded there was no new diagnosis to consider as there was no tenderness at the epicondyle and there was full range of motion of the elbow and wrists. Moreover, the worker was only symptomatic with respect to the de Quervain's tenosynovitis.

New Medical Evidence

Prior to the oral hearing, the worker's representative submitted an independent ergonomic assessment dated December 4, 2007. The occupational therapist, who wrote the report, indicated it was based, in part, on a two-hour onsite ergonomic assessment of the worker's jobsite and an analysis of the video taken at the time of the Board's jobsite visit. The occupational therapist made the following points relevant to this appeal (*summarized and paraphrased*):

- Although the case manager took a number of still images at the time of the jobsite visit, the worker reported that her work environment did not mirror her actual workplace. For example, the worker had not been granted computer access to perform normal work procedures; therefore, she attempted to demonstrate her tasks on a blank computer screen. The worker advised she had been ready to demonstrate her skills but was locked out of the computer by security since she was off work when the assessment was being conducted. [I note, parenthetically, that this evidence is consistent with the worker's testimony at the oral hearing.]

- The occupational therapist advised that an accurate picture of the worker's tasks could therefore not be assessed because the interface between the worker and her computer could not be accurately measured.

- Regarding exposure to force and awkward postures, the occupational therapist observed that the worker had a habit of extending her wrists when performing her tasks. The worker unconsciously held a pen in her right hand while completing her computer tasks. According to the occupational therapist, this placed a great amount of isometric contraction in the upper right extremity. Moreover, the worker demonstrated less than biomechanically optimal postures to complete her tasks. She used awkward wrist extension, which was demonstrated in the video, and throughout the majority of the video and photographs, the worker proceeded to conduct her tasks in this instinctive poor fashion. The video and photographs indicated the worker performed tasks with wrist extension far greater than 20 degrees.

- Although the worker's pain subsided, albeit minimally, during her time in web-based claims, she had worked several hours of highly repetitive work, which likely damaged the tendons through repeated stretching and elongation. According to the occupational therapist, this increased the likelihood of fatigue and decreased the opportunity for the affected tissues to recover. The occupational therapist noted that moving from web-based claims where the worker's schedule was evenly dispersed across a Monday, Wednesday, Friday schedule to telephone claims, where the worker was scheduled to work three days consecutively, was a contributing factor to her bilateral de Quervain's tenosynovitis and bilateral wrist tendonitis.

- The occupational therapist noted that pronating the hands as required by the worker when using the computer, caused the distal heads of the radius and ulna to cross and compress the soft tissues in the arm.

- He also noted that the worker engaged in repetitious pressure points when typing and manipulating the mouse. He concluded that the combination of the weight of the worker's arm plus working in a pronated and extended posture placed great stress on the anatomical structures of the hand and wrist.

- The occupational therapist observed two techniques by the worker that could have led to detrimental effects on the musculoskeletal structures: first, mousing with the right hand required greater right shoulder abduction, which typically lead to radial deviation in excess of 10 degrees, and second, the worker consistently demonstrated greater than 45 degrees extension at the wrist while working at the computer workstation.

- The occupational therapist observed that with the worker's move back to telephone claims adequate rest, which she needed to conduct her job, was no longer possible. She worked three consecutive shifts at a high volume job to which she was unaccustomed. The worker's pain resurfaced with great vigour when working in telephone claims.

Oral Hearing Evidence, Reasons and Findings

The worker seeks compensation for an injury or occupational disease that occurred after June 30, 2002, the transition date for relevant changes to the Act. Entitlement under this claim is adjudicated under the provisions of the Act as amended by Bill 49, the *Workers Compensation Amendment Act, 2002*. WCAT panels are bound by published policies of the Board pursuant to the *Workers Compensation Amendment Act (No. 2), 2002* (Bill 63). The policies relevant to this appeal are set out in the *Rehabilitation Services and Claims Manual, Volume II* (RSCM II).

Tendonitis is a condition generally referred to as an activity-related soft tissue disorder (ASTD). Generally, the Board views an ASTD that develops over time as a disease and those that are caused by trauma or a series of incidents as personal injuries. The worker reported that her left wrist symptoms developed gradually over time. I therefore find that her claim is properly adjudicated as an occupational disease and thus the provisions set out under either section 6(3) or 6(1) of the Act apply.

Section 6 of the Act provides that compensation is payable when a worker suffers from an occupational disease that is due to the nature of his or her employment.

Hand-wrist tendonitis is covered under Schedule B of the Act, which affords a presumption of work causation where the worker uses the affected tendon(s) to perform a task or a series of tasks that involve any two of the following as a significant component of the employment:

(1) frequently repeated motions or muscle contractions that place strain on the affected tendon(s);
(2) significant flexion, extension, ulnar deviation or radial deviation of the affected hand or wrist;
(3) forceful exertion of the muscles utilized in handling or moving tools or other objects with the affected hand or wrist;

Policy item #27.12 of the RSCM II provides guiding principles to apply when interpreting terms in Schedule B, in connection with hand-wrist tendonitis. "Frequently repeated" means the frequency of the work cycle for the tasks being performed. In other words, the number of times the same motion or muscle contraction is performed within a specified period. Generally, to be considered frequently repeated these motions or muscle contractions are repeated at least every 30 seconds. Or, where at least 50% of the work cycle is spent performing the same motion or muscle contraction and where the affected muscle/tendon group has less than 50% of the work cycle to return to a relaxed or resting state.

"Significant flexion, extension, ulnar deviation or radial deviation" means moving or holding the hand or wrist in greater than 25 degrees of flexion or extension, or 10 degrees of ulnar or radial deviation.

"Forceful exertion" relates to the amount of physical effort the individual has to put into a particular movement or activity. Force may either be external or internal. Consideration should be given to posture, the speed of movement, the duration of exertion, the weight of the load, and the friction of the load.

"Significant component" means that the worker has been performing the work activities for long enough that it is biologically plausible that the hand-wrist tendonitis resulted from the work activities.

From the outset, it is necessary to establish the worker's dispute with the work site visit conducted by the Board, some of which has already been documented in the report from the occupational therapist. The worker testified she was unable to fully and accurately demonstrate her work activities because she was locked out of her computer. So, she basically simulated typing in front of a blank screen. The case manager therefore observed another co-worker perform computer tasks though, according to the worker, this was not from beginning to end of a telephone inquiry. The worker and her representative submitted the independent ergonomic report ought to be

preferred over that conducted by the Board for a myriad of reasons including, the occupational therapist was able to observe the worker performing her actual job tasks when she was not as mindful of how she performed those tasks.

The independent occupational therapist's report differs from the work site evaluation conducted by the Board in several noteworthy respects. First, the case manager observed that the worker engaged in light to no force keying or mousing with wrists well within neutral posture. Conversely, the occupational therapist observed that the worker had a habit of extending her wrists when performing her tasks. Second, the occupational therapist observed that the worker unconsciously held a pen in her right hand while completing her computer tasks. According to the occupational therapist, this placed a great amount of isometric contraction in the upper right extremity. The Board's report made no mention of this motion being performed. Third, according to the occupational therapist, the worker demonstrated less than biomechanically optimal postures to complete her tasks. She used awkward wrist extension, which was demonstrated in the Board video, and throughout the majority of the video and photographs, the worker proceeded to conduct her tasks in this instinctive poor fashion. The occupational therapist observed that the video and photographs taken during the Board's work site evaluation indicated the worker performed tasks with wrist extension far greater than 20 degrees. In fact, the occupational therapist observed that the worker was exposed to radial deviation in excess of 10 degrees and she consistently demonstrated greater than 45 degrees extension at the wrist while working at the computer workstation. On the other hand, the Board's report indicated the worker performed her computer duties with wrists in neutral posture.

I prefer the evidence contained in the independent ergonomic assessment over that obtained at the time of the Board's work site visit. However, this is not to say that in all circumstances a work site visit conducted by a case manger should not be considered reliable evidence. I do not subscribe to the belief that a work site visit conducted by a Board officer must be inherently flawed by virtue of the fact that it is not conducted by a professional evaluator qualified to conduct an analysis of the risk factors associated with a worker's job and an ASTD diagnosis. I acknowledge that this may be an issue raised on some appeals since the Board began conducting its own work site assessments around January 2002. However, I find that Board officers do have the knowledge to make observations, which is what I consider that these reports contain, and then request an opinion as to the medical significance of these observations. The problem arises though when the observations made by the Board officer significantly differ from those of an independent occupational therapist and the worker's own knowledge of the work tasks, as is the case here. Under such circumstances, it becomes necessary to determine upon which opinion greater weight ought to be attached.

In the particulars of this case, the occupational therapist came to his conclusions after observing the worker perform her actual job duties. I consider this a valuable criterion when assessing the reliability of an opinion such as an ergonomic assessment. The worker testified that she was locked out of her computer terminal for security reasons on the date of the Board's visit. She therefore simulated her work but without the case manager observing the worker perform her actual job duties, it is difficult to observe the subtle nuances of how she carried out her tasks. From my view, this is important when considering if the worker engaged in awkward postures where a difference in degrees might determine whether there was exposure to an occupational risk factor. In addition, the occupational therapist provided a reasoned biomechanical explanation for an association between the worker's occupation and the development of an ASTD.

Turning to the occupational risk factors, as noted, to be considered frequently repeated means that motions or muscle contractions are repeated at least every 30 seconds. Or, where at least 50% of the work cycle is spent performing the same motion or muscle contraction and where the affected muscle/tendon group has less than 50% of the work cycle to return to a relaxed or resting state. The case manager observed that the worker engaged in frequently repeated wrist movements and these were associated with low force or no force and were within neutral postures. The occupational therapist also observed that the worker engaged in frequently repeated wrist movements though he disagreed that these were associated with low force and were within neutral postures.

The worker testified that telephone claims was extremely busy. A typical call lasted 15 minutes and she spent 80% of this time typing or mousing. After the call ended, the worker spent a few minutes typing comments or a short narrative before immediately taking another call. The worker advised that all calls were monitored so if another call in the queue was not immediately taken, then she would be questioned on this. The worker also explained that the bilateral nature of her condition occurred because she alternated her mousing activities based on which hand bothered her the most on any particular day. I accept, based on the worker's evidence, that she constantly changed the hand she used for mousing, the corollary of which would expose the worker to the same awkward postures when mousing with her left hand. Unlike the case manager, the occupational therapist observed that when mousing the worker engaged in frequently repeated awkward postures of greater than 10 degrees of radial deviation and greater than 45 degrees of right wrist extension.

There is no dispute that the worker's job activities in telephone claims exposed her to frequently repeated wrist movements – both the case manager and occupational therapist observed as much, and the worker's testimony is consistent with this observation. In addition, for reasons already mentioned, I accept the occupational therapist's evidence that he observed the worker's mousing activities exposed her to

greater than 10 degrees of radial deviation and greater than 45 degrees of wrist extension. I therefore accept, based on the evidence upon which I give greater weight, that the worker was exposed to significant extension and radial deviation of the right and left wrists.

I also accept, based on the evidence from both the worker and the occupational therapist, that the frequently repeated exposure to significant radial deviation and bilateral wrist extension represented a significant component of the worker's work activities.

Although it is not required at this point to state, I consider it is still necessary to note that while the worker had started in telephone claims in 1999, she had only returned to this position again after a stint in web-based claims, which was self-paced and therefore, less demanding. The worker returned to telephone claims in February 2006 and immediately commenced consecutive shifts, which represented a change in her usual shift pattern. The worker testified that her symptoms got worse by the third week in which she had worked four consecutive days. I consider that the movement back into telephone claims, which was faster paced and required significantly more mousing and typing, and the change in shift pattern that also followed, were unaccustomed aspects of the worker's activities in web-based claims, which she had been doing for two years prior.

In light of the above analysis, I find the circumstances of this case meet the presumption under Schedule B of the Act, and that presumption has not been rebutted.

Conclusion

I vary the Review Division's June 22, 2007 decision. I find the worker's bilateral wrist tendonitis and bilateral de Quervain's tenosynovitis meet the presumption under Schedule B of the Act and are therefore compensable.

The worker requested reimbursement for the expense in obtaining the December 4, 2007 independent occupational therapist report in the invoiced amount of $1,472.31. I am satisfied that it was reasonable in the circumstances of this appeal for the worker to have obtained this report. The report was also helpful in deciding the appeal. Therefore, under section 7 of the *Workers Compensation Act Appeal Regulation*, I direct the Board to reimburse the worker for this expense in the invoiced amount provided.

I also allow the worker's request for reimbursement of one-day time loss for attending the oral hearing in accordance with WCAT's *Manual of Rules of Practice and Procedure* item #13.22 which provides, in part, that where a party has requested an oral hearing, WCAT will generally order reimbursement of expenses for a party's own attendance if that party was successful on the appeal.

There was no further request for reimbursement of appeal expenses. Therefore, I make no additional order in this regard.

Cynthia J. Katramadakis
Vice Chair

CJK/ml