WCAT Decision Number: WCAT-2004-00086-AD
WCAT Decision Date: **January 12, 2004**
Panel: Deborah Vivian, Vice Chair

Introduction

The employer appeals the findings of a majority panel of the Workers' Compensation Review Board (Review Board) of December 12, 2003. A three-person panel heard the Review Board appeal. The majority of the panel, with one panel member dissenting, found that the worker's left shoulder tendonitis was caused by the work activities. The dissenting member disagreed that the worker's injuries were due to the nature of the work activities.

Issue(s)

Whether the worker's diagnosed left shoulder tendonitis was caused by work activities.

Jurisdiction

This appeal was filed with the Appeal Division. On March 3, 2002 the Workers' Compensation Appeal Tribunal (WCAT) replaced the Appeal Division and the Review Board. As an Appeal Division panel had not considered this appeal before that date it has been decided as a WCAT appeal. (See the *Workers Compensation Amendment Act (No. 2), 2002*, section 39).

In the notice of appeal dated January 14, 2003, the employer indicated an oral hearing was not necessary in the appeal. I have reviewed the evidence on file and have concluded that I can decide this appeal without an oral hearing.

On June 5, 2003 the worker was invited to participate in the employer's appeal. As no response was received from the worker it was concluded the worker did not wish to participate in the appeal.

Background and Evidence

The worker is five foot three inches tall, right–hand dominant and weighs approximately 110 pounds. The worker had been employed at a smelter mill since 1996 and at the relevant time was working as a cell operator on rotational 12-hour shifts. Her duties were variable. However, over the 12-hour shift she spent 15 minutes cleaning burners once in the course of a shift. The worker then had three cycles which involved driving and operating the ore truck for an hour, killing the lights for an hour, trimming, sweeping, tapping, and skimming. On June 29, 2001 the worker reported to the Board she felt

that use of her arms and shoulders in her work activities were causing pain in her left shoulder.

The work activities described by the worker as instrumental in the development of her left shoulder problems included putting poles into a crust breaker as well as the tasks of "killing the lights" and "skimming cruce". The worker reported she had pain over the top of her shoulder that radiated into the elbow of her left arm, which was burning and aching in nature. The burning and aching involved the left scapula area but the left elbow itself was not sore. The worker reported the symptoms had come on gradually over time and by September/October of 2000 she was in constant pain. At the same time the strength in her left arm and shoulder was decreasing and by the time she reported to the Board on June 29, 2001 the pain was more intense and constant.

The Board determined that the worker's case should be adjudicated under section 6 of the *Workers Compensation Act* (Act) as her symptoms occurred over time and there was no specific incident and the definition of a personal injury under section 5(1) of the Act had not been met. As outlined in a decision letter of September 21, 2001, the Board denied the worker's claim and found the left shoulder tendonitis was not caused by her work activities. Although the ergonomic assessment had identified a few activities in the work tasks where there was abduction or flexion of the shoulder joint greater than 60 degrees these activities were well spaced out over the course of her shift. Although the worker repeated the motions a number of times per hour, it was not a continuous process. It was the opinion of the Board medical advisor there was sufficient time for the tissues to recover between the work activities.

The worker appealed the decision of the Board to the Review Board. A three-person panel considered the worker's appeal. In Review Board findings dated December 13, 2002 a majority of the panel allowed the worker's appeal and found the preponderance of evidence led to a conclusion the worker's left shoulder tendonitis most likely arose from the nature of her work duties. The majority found from the ergonomic assessment that the requirements for repetition had been met. The panel also noted the worker frequently had heavy weights on the end of a pole to perform her job duties and noted there was static loading of the shoulder constantly while managing weights ranging from eleven to thirty-five pounds.

The dissenting panel member disagreed with her colleagues and found the worker was not entitled to the presumption under section 6(3) of the Act, as the necessary pre-conditions were not met by the work activities. Only two tasks had been identified which involved shoulder flexion greater than 60 degrees. The first was not continuous and there was adequate recovery time. The second task involving flexion greater than sixty degrees was only performed for five minutes per hour. The dissenting member also indicated the evidence did not indicate the left shoulder tendonitis was due to the nature of the employment, as the assessment did not reveal any activities that placed significant mechanical recruitment on the left shoulder and there was insufficient force to the affected tissue to be causative of left shoulder tendonitis.

The background and evidence has been set out in detail in the relevant information section of the findings of the Review Board panel dated December 12, 2002 and therefore it is unnecessary to repeat the information in its entirety.

Submissions

In the notice of appeal dated January 14, 2003 the employer indicated they disagreed with the findings of the majority of the Review Board panel, as the work activities did not have causative significance in producing the diagnosed condition. The employer argued that:

- The Board medical advisor's opinion was that the work activities would not apply a sufficient amount of force to the affected tissues to cause the left shoulder tendonitis.
- The worker's attending physician had not given any reason for finding the work activities were causative and had not seen the ergonomic assessment report.

In a submission dated November 5, 2003 the employer indicated there was insufficient evidence connecting the diagnosed condition to the nature of the employment to conclude that the employment activities were a significant cause of the left shoulder tendonitis. The employer indicated the original decision of the Board and that of the dissenting Review Board panel member were correct and that the decision of the majority of the Review Board panel should be overturned. The employer relied on the opinion of the dissenting member of the panel that:

- The worker was not entitled to the presumption of work causation by section 6(3) of the Act as the necessary pre-conditions of her work activities did not exist.
- The ergonomist had identified two tasks in the work activities involving shoulder flexion greater than 60 degrees.
- With respect to the task of "killing the lights," the narrative described shoulder flexion of 100 degrees when the worker loaded and unloaded the poles from the crush breaker machine. The remainder of the tasks only involved shoulder flexion of 10 to 55 degrees.
- The dissenting panel member agreed with the Board medical advisor's assessment that this task was not a continuous process and there was adequate time for tissue recovery during the task.
- The second task identified of "skimming crucibles" involved 75 degree shoulder flexion and abduction. However, the worker only performed this task five minutes per hour which also allowed for adequate tissue recovery.

Workers' Compensation Appeal Tribunal 150, 4600 Jacombs Road, Richmond, B.C. V6V 3B1
Telephone: (604) 664-7800; 1-800-663-2782; Fax (604) 664-7898

With respect to section 6(1) of the Act the dissenting member indicated:

- She found the tasks outlined in the ergonomic report an accurate reflection of the work activities and noted the assessment did not identify any activities or actions which placed significant mechanical recruitment on the left shoulder.
- The dissenting member acknowledged the existence of some risk factors in the work activities but agreed with the opinion of the Board medical advisor that the work activities would not apply a sufficient amount of force to the affected tissue causative of left shoulder tendonitis.
- The attending physician supported work causation but provided no reason for this opinion and therefore the dissenting panel member preferred the evidence of the Board medical advisor, as it was consistent with the observations made by the job site evaluator who performed the ergonomic assessment and was based on a more comprehensive analysis of the entire evidence.

The employer further argued:

- That a member of the Review Board panel, three case managers, two vocational rehabilitation consultants, one disability awards officer, two medical advisors, one nurse advisor, two client services managers and two team assistants concluded as a result of reviewing the ergonomic assessment that it was clear there were some risk factors in the work activities but could not be seen as a significant component of the employment to cause the diagnosed condition.
- The risk factors identified in the work activities did not meet the requirements of Schedule B for the claim to be adjudicated in accordance with section 6(3) of the Act. So the presumption as to causation could not be applied.
- Under section 6(1) of the Act it had to be shown that the condition must have arisen due to the nature of employment and that speculation of work as a cause was not enough. The attending physician indicated work causation with no reason outlined and had not reviewed the ergonomic report therefore his opinion was only speculative.

Reasons and Findings

Section 5(1) of the Act provides that where, in an industry within the scope of the Act, personal injury or death arising out of and in the course of employment is caused to a worker, compensation as provided by the Act shall be paid by the Board.

Section 6(1) of the Act provides:

> Where
>
> (a) a worker suffers from an occupational disease and is thereby disabled from earning full wages at the work at which the worker was employed or the death of a worker is caused by an occupational disease; and
> (b) the disease is due to the nature of any employment in which the worker was employed, whether under one or more employments,
>
> compensation is payable under this Part as if the disease were a personal injury arising out of and in the course of employment.

Shoulder tendonitis is listed as an occupational disease at item #13(b) of Schedule B and the worker would be entitled to the benefit of presumption of work causation if certain requirements are met. The criteria require that there be frequently repeated abduction or flexion of the shoulder joint. The frequency of the task being performed and how often the joint is abducted or flexed at greater than 60 degrees during the work task is relevant. Also relevant is the time during a work cycle that the affected muscle/tendon groups are working compared to the amount of time that the muscle and tendon groups have to recover from the task, i.e. return to a resting state.

Consideration must also be given to other activities that are performed between work cycles that require motions that affect the ability of the affected muscle/tendon groups to return to a resting state and if so whether these activities are repetitive in nature. Generally, tasks that are considered to involve frequently repeated abduction or flexion of the shoulder joint includes those that involve abduction or flexion of the shoulder joint greater than 60 degrees at least once every 30 seconds or ones that are repeated and at least 50 percent of the work cycle involves abduction or flexion of the shoulder joint greater than 60 degrees and where the muscle and tendon groups have less than 50 percent of the work cycle to return to a resting state. Whether tasks that involve lower work cycle frequency or greater periods of rest and recovery than as articulated by Board policy requires the exercise of judgement based on the circumstances of the individual claim.

Sustained abduction or flexion of the shoulder joint means that the shoulder is held in a static position of abduction or flexion of greater than 60 degrees. The greatest pressure is placed on the shoulder when there is between 60 and 120 degrees of abduction or flexion. The longer the joint is held in a sustained position of abduction or flexion during the work cycle and the less time available for the muscle and tendon groups to return to the resting state the more it can be concluded that the work involves sustained abduction or flexion of the shoulder joint as well as the converse of this proposition.

Item #13(b) of Schedule B also provides that such activity must represent a significant component of the employment. This means that the worker has been performing the

work activities involving the described use of the shoulder joint for sufficiently long that it is biologically plausible that the inflammation affecting the shoulder has resulted from the work activities.

The *Rehabilitation Services and Claims Manual, Volume 1* (RSCM) policy item #27.12 refers to shoulder tendonitis. The item indicates that either a rotator cuff tendonitis or supraspinatus tendonitis may cause an impingement syndrome. Shoulder tendonitis may result from a sudden strain placed on the tendon where the tendon is suddenly contracted or stretched with sufficient force to cause immediate damage. This situation would be adjudicated under section 5 of the Act as a personal injury. Where there is no specific event or trauma the diagnosis is treated as a disease and is adjudicated under section 6 of the Act.

Policy item #26.22 in the RSCM refers to the adjudication of cases where the worker suffers from an occupational disease but is not entitled to the presumption afforded by section 6(3) of the Act. The item provides that the worker may suffer from an occupational disease not listed in Schedule B or may suffer from an occupational disease but not be employed in a process or industry as set out in Schedule B. The worker may also suffer from a disease not previously designated or recognized as an occupational disease by the Board. Here the decision on whether the disease is due to the nature of any employment in which the worker was employed, is determined on the merits and justice of the claim without the benefit of any presumption. The same is true if for any other reason the requirements of section 6(3) are not met.

I have concluded that appropriate adjudication should be under section 6 of the Act and not section 5(1) as the evidence reveals that the worker's left shoulder tendonitis arose on a gradual onset basis that the worker has associated with work activities over time. The evidence reveals there was no specific incident or event, or series of specific events or traumatic episode which could be classified as a personal injury. Policy item #27.12 clarifies when shoulder tendonitis would be appropriately adjudicated under section 5(1) of the Act.

I have reviewed all the evidence on file in this appeal in light of the law and policy as outlined and have concluded the evidence, on a balance of probabilities, supports a finding that the worker's left shoulder tendonitis was due to the nature of the worker's employment as a cell operator in a smelter mill.

In reaching this conclusion I find, as did the majority of the Review Board panel, that the work activities as revealed by the ergonomic assessment do meet the requirements for repetition. With respect to this finding I note that the task of "killing the lights" is performed maximally for three hours per day. This varies in that the length of time for each round of this activity can vary from 12 to 60 consecutive minutes in duration. The worker loads the poles for killing the lights onto a machine. At the time of loading the poles the worker's left shoulder is flexed to approximately 100 degrees so that she can lift the poles.

Subsequently while performing the task of "killing the lights" the worker lifts an approximately 12-foot long pole from the crust breaker machine and carries the pole to the pot. She then pushes the pole under the pot two to four times to burn off the oxygen from the bottom of the anode. On the day of the assessment these poles weighed approximately 11 pounds however the worker has indicated they can be bigger and more like two by fours and are often heavier. When the worker has to push the pole under the pot she has to stand as far away as possible from the heat of the pot she is working with. At that time the ergonomic report indicated her left shoulder moves from ten degrees of extension to approximately 55 degrees of flexion while pushing the pole into the pot and then pulling it out. Subsequently the worker has to break the burning part off the pole by banging it on the floor and then lifts the pole again and replaces it in the crust breaker machine.

The ergonomic report indicates this activity is a risk factor where left shoulder flexion is noted at greater than 60 degrees with medium force, which is performed frequently. In considering the policy with respect to tendonitis I note that consideration must be given to other activities that are performed between work cycles that require motions or movements, which affect the ability of the affected tendon and muscle groups to return to a resting state and whether such activities are repetitive. In my view associated with this task there does not appear to be a significant opportunity for a resting period as I note that the shoulder joint is not able to return to a neutral resting position.

With respect to "skimming the crucible" as part of the task of tapping, I note the skimmer used in this task weighs approximately 14 pounds and is approximately ten feet long. The worker pulls skim to the side of the crucible towards the co-worker and at that time the worker stands with her left side to the crucible. In the ergonomic report it is noted the worker's left shoulder moves to approximately 75 degrees of flexion and 75 degrees of abduction as she moves the skimmer. This task is performed for approximately two hours per day each time taking about five minutes. Approximately 30 shoulder movements were recorded during the five-minute period. The ergonomist concluded that static flexion greater than 60 degrees was constant during this activity.

The task of trimming the ends of the pots with the broom was performed by the worker for 20 to 30 minutes per hour for up to three hours per day. The report indicates that 18 pots were trimmed three times each 12-hour shift. I note that while shoulder flexion and extension were at less than 60 degrees with this activity, shoulder flexion and extension still occurred approximately once per second and that high force was required to push the broom up onto the crust and the task was performed frequently.

With respect to sweeping floors this was performed with a push broom and performed for an hour once every shift. At that time shoulder flexion and extension were less than 60 degrees but flexion and extension movements occurred approximately every second. I also note from the report that when driving the ore truck for 45 to 60 minutes the worker's shoulder is positioned at approximately 40 degrees of static flexion for the

entire time. As outlined in other activities there does not appear to be a resting phase between tasks where the shoulder joint is in a neural position for very long.

In the overall summary of the assessment the ergonomic report noted multiple shoulder movements over the course of a shift. With respect to awkward postures the report indicated there was flexion of the shoulder from 55 to 100 degrees on a frequent basis. There was extension of the shoulder from 10 to 40 degrees on a frequent basis and abduction of the shoulder from 10 to 75 degrees on a frequent basis. I note with respect to force that the report indicates force was high and medium on the shoulder on an occasional basis and low on a frequent basis. I also note that static loading occurred at the shoulder on a constant basis with weights ranging from 11 to 35+ pounds.

To my mind this evidence when viewed cumulatively reveals that the worker performs repetitive tasks frequently when shoulder abduction/flexion are much greater than 60 degrees, notably 75 to 100 degrees.

The evidence also reveals that with work activities where flexion or abduction is less than 60 degrees the tasks still entail flexion or abduction up to 55 degrees and therefore, in my view, the shoulder joint is not permitted to return to a resting state for long in a neutral and relaxed position.

For the reasons outlined I also find that these activities represent a significant component of the worker's employment in that they are performed for sufficiently long that it is biologically plausible the shoulder tendonitis resulted from these work activities.

In his report of November 7, 2001, the attending physician Dr. C, indicates his opinion that the worker's left shoulder tendonitis/impingement would be totally compatible with certain work elements of the pot lines. The employer has argued that less weight should be placed on the opinion of Dr. C over that of the Board medical advisor as Dr. C did not have the benefit of the ergonomic assessment and that his opinion must therefore be purely speculative.

With respect I cannot agree with this argument. In light of the attending physician's prior experience and expertise as the occupational health physician for the employer for the years 1986 to 1991, it would be reasonable to conclude that Dr. C had relatively extensive knowledge of the work processes and activities as a result of this experience in the worker's particular workplace and therefore attaching greater weight to his opinion in the particular circumstances would be justified.

The worker was also examined and treated by a chiropractor. In his report of November 21, 2001 the chiropractor offered an opinion that the repetitive tendon strain from the work activities was the most likely cause. He also indicated that a significant factor might be the worker's small physical stature.

This factor of the worker's small physical frame was also noted by the orthopaedic specialist Dr. W. In his report of July 19, 2001, the specialist indicated his opinion that the nature of the worker's job duties involving a lot of lifting and overhead activity and this combined with her relatively small physical stature may have caused the left shoulder problems.

I also note in his report the specialist Dr. W describes specific work activities the worker performs that he indicates are fairly heavy physically. I note the worker's physical stature, as a factor does not appear to have been taken into account during the ergonomic assessment or by the Board medical advisor. I also note from the evidence that the worker's shoulder condition improves when she is on light duties or away from work, which in my view in this case tends to support work causation.

In summary, I concur with the majority view of the Review Board panel that the preponderance of the evidence taken in the context of the described work activities as well as the worker's small physical stature supports a conclusion that the worker's left shoulder tendonitis most likely arose due to the nature of her work activities.

In my view taken in its entire context the evidence with respect to the work activities and an analysis of the risk factors supports a finding that the worker is entitled to the benefit of the presumption of work causation under section 6(3) of the Act. In any event, I also find the evidence meets the test as outlined in section 6(1) of the Act that the worker's left shoulder tendonitis was due to the nature of her employment, therefore the argument as to whether or not the presumption applies becomes less significant as this would not change the outcome.

Conclusion

I deny the appeal and confirm the findings of the majority of the Review Board panel of December 12, 2002. As the worker did not participate no costs are awarded.

Deborah Vivian
Vice Chair

DV/rbe