

## **CLAIM HISTORY AND APPEAL PROCEEDINGS:**

The Worker\* is a truck driver, specifically, he is a long haul furniture mover. While in Edmonton unloading a shipment, the Worker suffered a heart attack. He filed a claim to have the heart attack recognized as a personal injury by accident arising out of and in the course of his employment. His claim was denied by the Board in a decision dated March 8, 2007. The decision was confirmed on appeal to a Hearing Officer.

The Worker now appeals from the May 22, 2007 Hearing Officer decision.

The appeal proceeded by way of oral hearing. The Worker appeared and gave oral testimony in support of his appeal. He was assisted by a Workers' Adviser who filed written submissions and made oral submissions at the hearing. Neither the Board nor the Employer participated in the appeal.

The *Workers' Compensation Act*, S.N.S. 1994-95, c.10, as amended [the "Act"] applies to this appeal.

## **ISSUE AND OUTCOME:**

Did the Worker's September 1, 2006 heart attack constitute a personal injury by accident arising out of and in the course of his employment?

Yes. There is sufficient evidence to conclude that the Worker suffered a heart attack caused, at least in part, by his physical activity at work.

## **ANALYSIS:**

### Causation

The Worker is entitled to the benefit of the doubt on any issue involving compensation. Where there is doubt on an issue and the disputed possibilities are evenly balanced, the issue must be resolved in the Worker's favour (s.187 of the *Act*). Section 10(1) of the *Act* provides that where personal injury by accident arising out of and in the course of employment is caused to a worker, the Board shall pay compensation to the worker.

The word "accident" is defined in s.2 of the *Act* to include, among other things, a chance event occasioned by a physical or natural cause.

Generally the worker must show a causal link between the injury and the workplace.

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\*This decision contains personal information and may be published. For this reason, I have not referred to the participants by name.

Causation need not be proved to a scientific certainty. Common sense may be used to infer causation where appropriate. See *Workers' Compensation Board (N.S.) v. Workers' Compensation Appeals Tribunal (N.S.) and Johnstone* (1999), 181 N.S.R. (2d) 247 (C.A.).

It is not necessary that an injury be solely due to work. The necessary causal link is established where it is shown that "but for" factors arising from work, a worker would not have suffered an injury. Alternatively, the test is met where work is a material contributing factor; ie. more than an insignificant or trifling amount. See *Ferneyhough v. Workers' Compensation Appeals Tribunal (N.S.)* (2000), 189 N.S.R.(2d) 76 (C.A.).

Section 10(4) establishes a rebuttable presumption related to s.10(1). Section 10(4) states:

"Where the accident arose out of employment, unless the contrary is shown, it shall be presumed that it occurred in the course of employment, and where the accident occurred in the course of employment, unless the contrary is shown, it shall be presumed that it arose out of the employment."

If a heart attack occurs in the course of employment, it will be presumed to have arisen out of the employment, unless the contrary is shown. In other words, there is a presumption that, if a person suffers a heart attack while at work (in the course of his employment), that heart attack arose out of or was caused by his employment. It is not necessary for a worker to demonstrate any unusual stress or strain prior to a heart attack for it to be compensable or for the presumption to be engaged. Work activity, however, will be part of the causation analysis.

I must determine whether the presumption provided in s.10(4) of the *Act* operates in the Worker's favour. If the presumption applies, then I must determine if there is evidence to the contrary on file which rebuts the presumption.

### Factual Background

The Worker completed a WCB accident report dated October 2, 2006. Describing how the accident happened, he noted "unloading furniture, small shipment, approximately 3,500 lbs, no unusually heavy items".

Attached to the report of accident were the medical reports from the physicians who attended the Worker at the hospital in Edmonton. The documents included a discharge summary by Dr. Al-Kurtass.

Dr. Al-Kurtass noted in the report that he treated the Worker on September 1, 2006 after he was admitted with chest pain and was diagnosed with a non-ST elevation myocardial infarction. He suggested that the Worker was not known to be hypertensive or diabetic but was dyslipidemic, and had quit smoking seven years prior to presentation having smoked for a total of 35 years. He noted no family history of coronary artery disease.

Dr. Al-Kurtass reported that the Worker had been relatively well until presentation when he started having left-sided squeezing chest pain radiating to the left arm, which was aggravated by physical exertion and relieved by rest. On the day of presentation, Dr. Al-Kurtass reported the Worker had a long episode starting at 6:30 a.m. which had awoken him from sleep and lasted for two hours. It was associated with dizziness, but there was no syncope or diaphoresis.

The Worker while in the hospital had coronary artery angiography. Dr. Al-Kurtass reported that the Worker's mid RCA-lesion was plastyed and stented with excellent post-plasty results. He was discharged on medication including Lipitor which he had taken in the past. The diagnosis on discharge was "coronary artery disease - acute non-ST elevation myocardial infarction, status post-RCA PCI (September 1, 2006); Dyslipidemia".

Dr. Al-Kurtass recommended that the Worker refrain from driving for the next two months and undergo an exercise stress test prior to resuming his occupation.

The Worker was thereafter followed by his family physician, Dr. Ellis.

The Worker, in his testimony before the Tribunal, recounted the days prior to his cardiac episode at work. The Worker is a long haul furniture mover. He basically travels from Halifax to Victoria and back, completing one round trip per month. In this particular case, he started on August 1, 2006 in BC and drove to the east coast, unloaded in Halifax and re-loaded, went on to Newfoundland where he again unloaded and then loaded for the return trip. He stopped in Truro for a load and went on directly to Edmonton, arriving in Edmonton on August 31, 2006 at approximately 10pm.

He drives approximately 9,000 miles on these return trips and he can move up to 119,534 lbs of furniture. His trailer is 9 feet high, 8 feet wide and 53 feet long. He packs his truck very carefully so that there is no empty space, as empty space means loss of revenue. Often small pieces are loaded into larger pieces and packed up to the roof. Six cubic feet of dishes can weigh up to 150 pounds, a piano weighs 1,400 pounds and heavy pieces like a dresser could weigh up to 400 pounds. A normal day starts at 6:30am and finishes at 4pm. He will load approximately 1000 to 1500lbs an hour.

Some shipments are bulky and some are heavy. He described his load on this particular trip to Alberta as normal consisting of 11 shipments weighing 33,000lbs. He had two shipments to unload in Edmonton, one was small but heavy and one was normal. The heavy shipment weighed 1900lbs but the average weight of the 38 pieces was 51lbs, heavier than the average weight of most shipments, which was 35lbs.

On the morning of September 1, 2006, he woke up at 6:00 a.m. and he did not feel very well. He was nauseated, he used the washroom and went back to sleep until approximately 8am. He got his labourers together about 9:00 or 9:15am and started unloading the small load which he had to dig out from the back of the trailer. This required the Worker to get on a ladder, reach for the boxes and pass the boxes to his helper to get

them out of the side door of the truck. When they were almost finished unloading that shipment, he started having problems in the truck. He felt a little claustrophobic. He called a break. When he was sitting down having coffee, he felt dizzy. He then lay down and started feeling worse. Finally, he asked someone to drive him to the hospital.

He acknowledged having problems during the 8-10 days prior to arriving in Edmonton. He had not felt well during one of the stops in Newfoundland. He had two days to rest in St. John's waiting to start the return trip. He felt sick at that time. At Port Aux Basques, he also felt bad while packing and loading a shipment. He took the ferry to Nova Scotia and he felt a little strange in Truro when he stopped for a shipment. He thought he had the flu and described feeling nauseated. Once he loaded in Truro, he went on to the 52 hour drive to Edmonton without any further trouble.

The Worker's testimony confirmed information previously provided to the Board. For example, in his Notice of Appeal to Hearing Officer, he stated that he did have a pain in his chest at 6:30 a.m. when he woke up, but it did not last for two and a half hours. He woke up, felt uncomfortable, used the washroom and went back to sleep. He added that, although the pain and discomfort he was having for eight to ten days may have been a sign of a heart attack, it was nothing compared to the pain and discomfort he experienced while he was having a heart attack.

His past medical history included stress tests and blood work to monitor his physical health. He had high lipids. He continued to smoke. He was last checked in January 2006. At that time, he didn't have as much energy, he was feeling tired. He had a stress test and blood work done after reporting to the hospital with dizzy spells on January 29, 2006. He is now back on Lipitor, which he had taken previously but had discontinued because of side effects.

I conclude from the Worker's evidence that he experienced physical problems and began to feel unwell several days before he suffered a cardiac event. He woke up on September 1, 2006 again feeling unwell, however his symptoms abated as they had before. His condition worsened only several hours later while he was unloading a shipment and he proceeded to the hospital where he was treated for a myocardial infarction.

Board decisions attach significant weight to the assumption that the Worker had a cardiac episode lasting several hours prior to any work activity on September 1, 2006. I accept the Worker's testimony that this was an incorrect assumption.

Based on the Worker's testimony, I find that he suffered a myocardial infarction at work. In the circumstances, the Worker benefits from the presumption in s.10(4) of the *Act*.

### Recognition

I must therefore determine from the whole of the evidence whether the presumption is rebutted.

Is the presumption rebutted by evidence which would suggest that the work activity did not contribute to the Worker's injury and is there affirmative evidence of another cause? These two questions usually go hand in hand.

Information on file indicates that the Worker had risk factors associated with heart disease. Board Medical Advisor Dr. Sorhaindo addressed these in a November 28, 2006 opinion. Dr. Sorhaindo was asked for an opinion on whether the cardiac event was causally related to work and, if so, was it aggravated temporarily or permanently? He stated as follows:

There are some key points to this claim: [i] The Worker was dyslipidemic - a prime element supportive of developing coronary artery disease [CAD]; [ii] The Coronary Artery Angiography [CAA] showed significant/multiple coronary occlusive lesions [stable and longterm], some to 100% occlusion; and likely of most importance, [iii] significant symptomology"...which had woken him from sleep...", was realized at 6:30am of the day of presentation. This, the later was typical of a myocardial event [heart attack].

With time, e.g. over the ensuing morning/day, the effects of the myocardial event would likely lead to a worsening of symptoms/cardiac insult with or without work.

1. No, as per the above, the event was not causally related to the work duties, as not only was the worker clinically predisposed to such an event, but the event began before work.
2. It was temporarily aggravated, and like any other personal conditions made temporarily worse by physical activity, e.g. likened to appendicitis while at work, which would not be caused by work and the effects of work on such a condition would have been relieved by rest. This though would not prevent the condition from getting worse with time.

The Workers' Adviser provided a report dated February 11, 2007 from the Worker's treating family physician, Dr. Ellis.

Dr. Ellis pointed out that the Worker had a stress test on February 21, 2005 which was normal and therefore at that time, the Worker did not exhibit heart disease.

He noted that the Worker was started on lipid lowering therapy in 2001; however, because he felt anxious and restless, the medication was stopped. The Worker's cholesterol had been elevated in the past. Dr. Ellis concluded that if the Worker "did not have his physically demanding job, I do not believe his heart disease would have manifested itself this early in his life". Therefore, in his opinion, his physically demanding work contributed to his heart disease presenting at that time.

Another Board Medical Advisor was asked to comment on the report. Dr. Siavash Atrchian

responded as follows:

The worker was suffering from a long-time severe dyslipidemia. He smoked for a total of 35 years and according to Dr. Ellis report dated on Sep 17, 2003 the worker was suffering from depression too.

According to the medical reports, the worker was suffering from cardiac mid-posterior wall hypokinesia, incomplete right bundle branch block and the most importantly complete stenosis of RCA (Right Coronary Artery) which is in keeping with the symptoms.

It is crystal clear that the worker had a very strong risk factors for a myocardial infarction and it could be happened anytime. I agree with Dr. Ellis comment about the relation between heavy exertion and cardiac symptoms. This is the same relation that sexual activity can have with cardiac symptoms. (Emphasis added)

There is a point, which should be considered and that is timing of the cardiac symptoms. The symptoms started at 6:30 am when the worker was at rest and possibly had a few hours of sleep. I bring your attention to the next paragraph regarding the relation between heavy exertions (Work, sexual activity, sports,...) and cardiac symptoms.

Despite anecdotal evidence suggesting that heavy physical exertion can trigger the onset of acute myocardial infarction, there have been no controlled studies of the risk of myocardial infarction during and after exertion. The induction time from heavy exertion to the onset of myocardial infarction is normally less than one hour, and symptoms usually begin during the activity. The reason is very clear. Cardiac muscles are working harder in order to pump more blood to the body and need more O<sub>2</sub> and blood supply through coronary arteries. Coronary arteries have stenosis and cannot supply enough blood to the heart muscles and ischemia, pain and even infarction can happen, but this is not the case in this claim.

Heavy physical exertion can trigger the onset of acute myocardial infarction, particularly in people who are habitually sedentary. (Emphasis added)

I reviewed this file and I am unable to relate causally the early morning myocardial infarction (which is common) and the worker's job.

Other medical information includes the family physician's chart notes. As mentioned, the Worker's history indicates that he was having regular stress tests. Notably, he had one on January 29, 2006 when he experienced dizzy spells and left-sided chest tightness. A cardiac profile was ordered. A cardiology report indicated no ST-T changes suggestive of myocardial ischemia. A 2003 chest x-ray showed no active disease. He was treated by a psychologist in 2003 for depression. A stress test noted the history of hypercholesterolemia and smoking.

I conclude from the whole of the evidence that the Worker had pre-existing coronary heart disease at the time he suffered a myocardial infarction at work on September 1, 2006. He had known risk factors for heart disease. I find that the acute myocardial infarction on September 1, 2006 was brought on by the physical exertion associated with the Worker's employment on the morning of September 1, 2006. Although the Worker had heart disease, it cannot be said that the work activity did not contribute in a material way to his myocardial infarction on that day. Therefore, the Worker's injury, that is, his acute myocardial infarction was, at least in part, due to work.

The Board Medical Advisor's opinion that the Worker would have experienced his myocardial infarction on September 1, 2006 whether or not he performed any work that day was based on several facts, one of them being that the Worker suffered a long episode in the early morning. Having found that he did not, I cannot accord as much weight to that opinion.

The Worker may have suffered a heart attack on that day or in the days following, or at the very least, he may have gone for treatment which would have disclosed the extent of his disease. Surgery would no doubt have resulted from such investigations. Notwithstanding this fact, the Worker suffered an acute myocardial infarction while he was doing physically demanding and strenuous work. This phenomenon was explained by Dr. Atrchian. Dr. Atrchian's description of the relationship between heavy exertion and the onset of myocardial infarction supports the causal link between work activity and the Worker's heart attack in the particular circumstances of this case. Heavy exertion brought on the acute symptoms.

The fact that the Worker had risk factors and underlying heart disease is not sufficient to rebut the presumption. I reiterate that the Worker does not have to prove that he was doing "unusual work". Whether the shipment he was unloading on September 1, 2006 is characterized as unusual is not determinative. He was a furniture mover. This is heavy and strenuous work.

Lastly, I accord very little weight to Dr. Ellis' opinion that the Worker's occupation over time contributed to the development of his heart disease. Dr. Ellis' opinion is not supported by any objective medical evidence. The Worker's occupation did not cause his heart disease.

On the whole of the evidence, I find that the presumption has not been rebutted. The Worker's heart attack is causally related to his work. It is more likely than not that work was a contributing factor in the occurrence of his myocardial infarction, notwithstanding the Worker's pre-existing disease.

The Worker has suffered an injury by accident arising out of and in the course of his employment under s. 10(1) of the *Act*. Benefits are payable in keeping with s.10(5) of the *Act*.

**CONCLUSION:**

The appeal is allowed. The Worker's heart attack constitutes a personal injury by accident arising out of and in the course of his employment.