Manitoba

Automobile Injury Compensation Appeal Commission

IN THE MATTER OF an Appeal by [the Appellant]
AICAC File No.: AC-09-055

PANEL:	**Ms Laura Diamond, Chairperson** **Ms Heather Mitchell** **Ms Sandra Oakley**
APPEARANCES:	**The Appellant, [text deleted], was represented by Mr. Dan Joanisse of the Claimant Adviser Office; Manitoba Public Insurance Corporation ('MPIC') was represented by Mr. Morley Hoffman.**
HEARING DATES:	**November 17, 18, 21, 24, 25 and 26, 2014**
ISSUE(S):	**1. Whether the Appellant is entitled to Income Replacement Indemnity benefits.** **2. Whether there is a causal connection between the cervical disc herniation of January 2008 and the motor vehicle accident.**
RELEVANT SECTIONS:	**Section 70(1) of The Manitoba Public Insurance Corporation Act ('MPIC Act')**

AICAC NOTE: THIS DECISION HAS BEEN EDITED TO PROTECT THE APPELLANT'S PRIVACY AND TO KEEP PERSONAL INFORMATION CONFIDENTIAL. REFERENCES TO THE APPELLANT'S PERSONAL HEALTH INFORMATION AND OTHER PERSONAL IDENTIFYING INFORMATION HAVE BEEN REMOVED.

Reasons For Decision

The issue before the panel was whether the Appellant's cervical disc herniation was causally connected to the motor vehicle accident, thereby entitling him to further Income Replacement Indemnity benefits.

The Appellant was injured in a motor vehicle accident on September 12, 2007. He reported injuries to his neck, upper back, left arm, right leg, lower back and right side face numbness. He was in receipt of chiropractic care benefits from MPIC.

The Appellant was involved in a second motor vehicle accident on November 30, 2007. He continued with chiropractic treatment. Medical information indicated that he suffered soft tissue neck injuries with sensory disturbance in the C6 distribution to the lateral side of the arm, up to and including the thumb. He was improving with treatment, and in January 2008 was preparing to discontinue chiropractic treatment.

On January 11, 2008 the Appellant suffered an episode of intense neck pain. Medical investigation, including MRI findings, demonstrated disc pathology at the left C7-T1, impinging on the C8 and/or T1 nerve root. This was diagnosed as a disc herniation with radiculopathy.

The Appellant also filed a claim for benefits with his employer's insurance company. He was unable to continue working after January 11, 2008 due to the increase in pain.

The Appellant's case manager wrote to him on September 11, 2008 indicating that the medical information on file did not support that the Appellant had sustained a specific injury as a result of the September 12, 2007 motor vehicle accident which would result in an inability to perform his pre-accident employment as a customer service representative for [text deleted]. The case manager stated:

> "...The evidence confirms that your accident-related injuries were soft tissue neck injuries with sensory disturbance in the C6 distribution as reported numerous times by [Appellant's chiropractor]. The C6 distribution is to the lateral side of the arm up

> to and including the thumb. The reported symptoms as of January 11, 2008 consist of persistence of left shoulder pain, arm numbness, neck pain and lower back pain. [Appellant's doctor #1] described the distribution of radiation as a tingling along the medial border of the arm. The left C7-T1 would impinge on the C8 and/or T1 nerve root whose distribution would include the medial part of the arm and the little finger. This is consistent with the injury as of January 11, 2008.
>
> The medical information does not support a causal relationship between the motor vehicle accident of September 12, 2007 and our present symptoms involving your neck and left arm pain to the medial part of the arm and your little finger. Therefore there is no entitlement to Income Replacement Indemnity benefits as a result of the September 12, 2007 motor vehicle accident."

The Appellant sought an Internal Review of this case manager's decision.

On March 24, 2009, an Internal Review Officer for MPIC reviewed the medical information on the Appellant's file including information received from its Health Care Services team and a physiatrist who had cared for the Appellant. The Internal Review Officer indicated that these doctors had noted the Appellant had suffered a WAD II injury as a result of the motor vehicle collision and that subsequently on or about January 11, 2008, he suffered a disc herniation at the C7-T1 level. Their conclusion was that these were two different conditions and that the disc herniation had occurred as a result of the January 11, 2008 incident, when the Appellant was stretching. It was independent from the injuries in the motor vehicle accident of September 12, 2007, and the diagnosis of disc herniation was not related to the motor vehicle accident. Therefore, the Internal Review Officer concluded that the disc herniation suffered in January of 2008 was not related in any way to the motor vehicle accident of September 2007 and the Appellant's Application for Review was dismissed.

It is from this decision of the Internal Review Officer that the Appellant has appealed.

Other Issues:

The Appellant had also filed a Notice of Appeal in regard to MPIC's position that he was not entitled to IRI benefits for certain periods, due to his inability to work as a result of injury to his knee caused by the motor vehicle accidents. However, at the appeal hearing, the parties advised that this issue had been resolved and the Appellant was withdrawing his appeal in regard to the issue.

Evidence:

The panel reviewed documentation on the Appellant's indexed file which included medical reports from various practitioners. In addition, the panel heard testimony at the hearing from the Appellant, [Appellant's doctor #2], [Appellant's doctor #3], [Appellant's physiatrist] and [MPIC's doctor].

Evidence of the Appellant:

The Appellant testified at the hearing into his appeal. He explained that prior to the motor vehicle accidents he was employed full time as a customer service representative at [text deleted]. He was in excellent physical condition, attending the company gym and [text deleted] six days a week, working out with a cross-trainer, stationary bike, weights, doing stretching and also swimming. He had no major health concerns aside from occasional bouts of tendonitis in his elbow, a previous neck and lower back problem after a motor vehicle accident (which cleared up) and some knee surgery, which was very successful, in 2002.

The Appellant described the motor vehicle accidents, which he considered fairly severe.

Immediately after the first accident, the Appellant felt pain in his right knee and neck, as well as numbness in his face and tingling down his left arm. He attended at his family doctor and chiropractor. His family doctor told him that he had bad whiplash and to take it easy, hoping and expecting that it would clear up in the next nine months to a year. However, the pain in the Appellant's neck, back and hand continued to come and go. It bothered him in his neck and back while he was sitting at work, with his muscles feeling tighter. He continued to feel tingling in his left hand. He was not able to return to the gym to exercise and had difficulty sitting at his desk to work with his headset and computer.

The second motor vehicle accident was not quite as severe as the first one, and the Appellant felt the same type of symptoms. He continued with chiropractic treatment.

By December he started becoming more and more uncomfortable at work, had difficulty sitting and found that his muscle tightness was progressively getting worse. He continued working, with chiropractic treatment, although he had been planning to discontinue chiropractic treatment.

In January the Appellant asked for an extra chiropractic appointment on an emergency basis, because the pain in his neck, back and down his arm had gotten worse.

On January 11, 2008, he woke up and sat up in bed to do approximately 15 to 20 minutes of morning meditation. He then stretched back his arms a little bit and felt instantaneous pain in his shoulder, arm and neck.

The Appellant went to the [text deleted] Clinic where he saw [Appellant's doctor #2] who prescribed oxycontin and oxycodene for the pain and told him not to go to work that day.

The Appellant went for one or two more chiropractic treatments, but, under [Appellant's doctor #2's] directions, he stopped going, so as not to exacerbate his condition. The Appellant explained that he was feeling the same symptoms as he had after the two motor vehicle accidents, but the pain intensity was now magnified "off the scale". He went from not being comfortable at all, to not being able to move at all without extreme pain.

Once the Appellant used up his sick days at work, he applied for short term disability benefits as was his company protocol. He understood that because of the medication he was on, the employer's strict policies would not allow him to work at that time.

[Appellant's doctor #2] sent him for an MRI which revealed a disc herniation. He received benefits from [Appellant's employer's insurance company], but contacted MPIC a couple of weeks after the MRI, when he began to suspect that the herniation in his neck was a result of the motor vehicle accident.

[Appellant's doctor #2] continued to treat him and also referred him to a physiatrist, [Appellant's physiatrist], for treatment. The Appellant noticed a sign indicating that [Appellant's physiatrist] did reports for MPIC, and so requested that he provide a report to the Corporation regarding his disc herniation. The Appellant asked [Appellant's physiatrist] some questions about the connection of the herniation to the motor vehicle accident, the severity of the motor vehicle accident and the possibility that the Appellant has suffered an annular tear. [Appellant's physiatrist] answered some questions and refused to answer others,

indicating that the Appellant needed to pose different questions. [Appellant's physiatrist] did provide a report, and the Appellant indicated that he was quite surprised when he saw that [Appellant's physiatrist] was of the opinion that there was no causal relationship between the motor vehicle accidents and the disc herniation.

On cross-examination, the Appellant agreed that he did not feel a big difference in his condition after the second motor vehicle accident, as he seemed to just be feeling a continuation of the same symptoms. He could not recall whether he reported the second accident to his chiropractor.

Evidence of [Appellant's chiropractor]:

[Appellant's chiropractor] did not testify at the hearing into the Appellant's appeal. However, he provided several chiropractic reports dealing with his assessment and treatment of the Appellant. The Initial Chiropractic Report following an examination of September 13, 2007 diagnosed WAD II with sprain/strain/neurological stress...distinct symptoms of headaches, neck pain, shoulder/arm pain, low back pain and numbness on the right side of the face. It also noted that Track 2 care may be necessary due to neurology/dysfunction. Further chiropractic care reports, including a Chiropractic Track 2 report, noted similar symptoms.

A narrative report dated April 30, 2008 described the areas affected following the September 2007 accident as including: right knee, ankle, lower back, mid back. He experienced:

> "...numbness in right side of his face and was unable to look to his left and also had pain into his left shoulder to below the deltoid.
>
> Upon examination slight dermatomal change was revealed with weakness in all directions and myotomes of the left arm. At this time my diagnosis of [the Appellant's] symptoms were based on whiplash acceleration/deceleration injury with a neurological stress on the left side upper extremity."

After the Appellant advised in January 2008 that he was suffering extensive left arm pain due to nerve compression in the neck as a result of disc damage, [Appellant's chiropractor] commented:

> "My observation of [the Appellant's] pain pattern was that his symptoms were very similar to his initial presentation after the accident and that in my opinion his functional impairment is directly related to the motor vehicle accident of Sept. 12/07.
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> ...It is my opinion however that his injuries and impairment of function can be directly attributed to his motor vehicle accident."

A report dated May 18, 2010 included a comprehensive listing of many of the findings by [Appellant's chiropractor] upon examination of the Appellant over the course of his treatment. This included hand, arm, shoulder pain and pain between the shoulders which was "more global than any particular portion and included muscle weakness in C5, C6, C7, C8 and T1 myotomes with specific dermatomal change in only C6 when compared to the other extremity..." Legible transcripts of his chart notes were also provided.

Evidence of [Appellant's doctor #1]:

[Appellant's doctor #1] did not testify at the appeal hearing but provided medical reports and clinical notes from the Appellant's file. A Primary Health Care Report following an examination of September 20, 2007 identified neck, left shoulder/arm, wrist/hand pain as well as low back, hip, knee, ankle and facial/jaw pain. The diagnosis was of diffuse muscle soreness.

A neurological examination was characterized as normal.

A narrative medical report dated May 7, 2008 described the motor vehicle accident and indicated the Appellant was still experiencing "left shoulder pain, arm numbness, neck pain and lower back pain."

[Appellant's doctor #1] noted the second motor vehicle accident and added that the patient was experiencing muscle fasciculations and was feeling like his muscles lock up along the ulnar border of his left hand. [Appellant's doctor #1] expressed concern that there may be a left ulnar neuropathy.

Evidence of [Appellant's doctor #2]:

[Appellant's doctor #2] provided chart and progress notes from the Appellant's file as well as narrative medical reports dated April 11, 2008, September 13, 2010, August 5, 2011 and May 13, 2013.

In a report dated April 11, 2008, [Appellant's doctor #2] described his examination and treatment of the Appellant and stated:

> "With respect to your question whether this is in direct relation to the motor vehicle accident of September 12, 2007, I would be unable to state whether that was the case or not. With respect to other questions concerning the likelihood of the current condition for which [the Appellant] is currently being treated in relation to the motor vehicle accident, once again since [the Appellant] presented to me in January and reports the motor vehicle accident in September, I would be unable to comment on whether this would be the case or not. Based on your last question, [the Appellant] has recovered somewhat, however I do not believe he would be able to maintain gainful employment until we reassess him in the near future.
>
> I hope this provides you with adequate information concerning [the Appellant], however concerning the presentation in January and the history of his motor vehicle accident in September, it is very difficult to ascertain as to whether there is a causal or connective relationship between the two events..."

On September 13, 2010, [Appellant's doctor #2] described his first examination of the Appellant on January 11, 2008. He stated:

> "I do not have any history of [the Appellant] prior to his presentation in January 2008 and especially in the history of him around the time of the accidents. [The Appellant] has related to me though that he had no neck issues or sought any medication care for any neck issues prior to his motor vehicle accidents.
>
> I have yet to find a causal relationship between simple stretching and specific disc herniation however this evidence may be available in sources yet unfound by myself. I am of the opinion that there is no specific way to approve or disprove [the Appellant's] case. Once again, it would fall on burden of the balance of probabilities.
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> My opinion would be that since [the Appellant] had no evidence of any medical contact prior to his motor vehicle accidents and certainly has evidence from imaging studies of disc herniation that would be in keeping with his presentation to myself, that on the balance of probabilities there was a reason to believe that the motor vehicle accidents materially contributed to his problem."

[Appellant's doctor #2] testified at the hearing of the Appellant's appeal. He was qualified as a family practitioner with an exclusive musculoskeletal practice. He provided information and evidence regarding the elements of the spine and their functions. He explained terms such as whiplash, pain radiation into the hands, radiculopathy, mechanical irritation, the annular structure and annular tears.

In his view, the Appellant's initial reporting of intermittent pain symptoms in his left upper extremities (hand and fingers) after the accident was consistent with a nerve root irritation. He described the Appellant's condition at the [text deleted] Clinic on January 11, 2008 and his assessment and treatment of him. He explained that in his first report, dated April 11, 2008, he had not yet had a chance to review the Appellant's file, with other reports on the file and relied upon the clinical assessments he had performed and the imaging which he reviewed, such as the MRI.

In preparing his subsequent report dated September 13, 2010, the doctor indicated that he had had an opportunity to review a package of documents provided to him by the Appellant's counsel which included reports from other practitioners.

[Appellant's doctor #2] indicated that in his view, the Appellant's condition was an exacerbation of the symptoms which he had previously reported following the two motor vehicle accidents. He had indicated that he had not had any neck issues or sought medical care for neck problems prior to the motor vehicle accidents.

Further, [Appellant's doctor #2] indicated that before writing his report dated September 13, 2010, he had researched "Medscape" looking for references to a connection between simple stretching and disc protrusion and/or extrusion. He had found nothing to suggest any type of relationship between a stretching motion and the pathology in question. He had reviewed the reports from the chiropractor, [Appellant's chiropractor] and the family physician, [Appellant's doctor #1], and it was his view that the symptoms reported by the Appellant and recorded by these caregivers following the motor vehicle accident were consistent with an irritation of the nerve root. He indicated that one did not typically see specific symptoms in the distal hand in a WAD II injury. He reviewed the neurological findings in the reports and was of the view that MPIC's medical consultant's opinions were not consistent with the neurological findings of the caregivers.

Although [Appellant's doctor #2] indicated that there was no way of knowing for certain what had caused the disc herniation, he agreed that where a disc herniation occurs in a "spontaneous" manner, it is more likely to occur at a level of the spine where degenerative changes can be seen. In reviewing the imaging of the Appellant's spine, there was evidence

of degenerative change at various levels but the level at which the herniation occurred did not show evidence of degenerative changes. He agreed that if the disc herniation had occurred spontaneously on January 11, 2008 it would be more likely to have occurred at a higher level of the cervical spine where evidence of degenerative changes were found.

[Appellant's doctor #2] also reviewed reports provided by [Appellant's doctor #3] and agreed that an internal annular tear could have occurred. Such an annular tear may have predisposed the disc to further injury, and this could account for the delay between the initial trauma and the ultimate herniation.

He also agreed with [Appellant's doctor #3's] opinion that there was no medical literature to support the connection between simple stretching as a cause of disc herniation. Based upon his knowledge of disc herniation he would agree with [Appellant's doctor #3's] opinion that the stretching was just the straw that broke the camel's back to exacerbate injuries which occurred in the motor vehicle accident.

[Appellant's doctor #2] was of the view that the left upper limb symptoms documented in the Appellant's hand after the first motor vehicle accident and prior to January 11, 2008 suggested the presence of a disc injury or irritated nerve root at the C8 level on the left side and that based on all the evidence, on a balance of probabilities, the motor vehicle accident had materially contributed to the Appellant's C7-T1 disc herniation and resulting C8 radiculopathy.

Evidence of [Appellant's doctor #3]:

[Appellant's doctor #3] treated the Appellant and provided progress and procedure notes, as well as medical reports dated November 16, 2010, December 9, 2011, October 26, 2012 and June 4, 2013.

On November 16, 2010, [Appellant's doctor #3] reviewed the Appellant's file, including reports from [Appellant's chiropractor], [Appellant's doctor #1], [Appellant's doctor #2], [MPIC's doctor] and [Appellant's physiatrist]. [Appellant's doctor #3] was of the opinion that on a balance of probabilities the motor vehicle accidents materially contributed to the Appellant's C7-T1 disc herniation. He based his opinion on the fact that the Appellant was not suffering symptoms relating to cervical disc herniation prior to his motor vehicle accident of September 2007 and that he began experiencing left upper extremity symptoms (including pain and numbness in his left hand) within one day of the motor vehicle accident. These left hand complaints were documented by his chiropractor who also documented weakness and sensory loss, at corresponding locations and levels. These complaints were also documented by [Appellant's doctor #1] and reported to MPI. [Appellant's doctor #3] described the Appellant as experiencing "an exacerbation of his neck pain with associated numbness in his left hand (C8/ulnar distribution) on January 11, 2008, following stretching in the morning prior to getting out of bed".

Although [MPIC's doctor] (of MPIC's Health Care services team) was of the view that stretching of the neck could lead to the development of the Appellant's condition independently, [Appellant's doctor #3] opined that this was not supported by the medical literature. He agreed with [Appellant's doctor #2's] observation that he had yet to find a

reported causal relationship between simple stretching and specific disc herniation. [Appellant's doctor #3] stated:

> "As I have never seen a single case of cervical disc herniation being independently caused by stretching in over 18 years of full-time chronic pain management including work and training at the [text deleted] Clinic in [text deleted], I attempted to do a medical literature search relating to this subject. The search engines used were PubMed and Medline Plus. A search for "stretching cause cervical disc herniation" and "stretching cervical disc herniation" resulted in no articles relating to stretching as a cause for cervical disc herniation."

[Appellant's doctor #3] concluded:

> "In view of the documented clinical findings of myotomal abnormalities extending from C5 to T1 one day after the September 12, 2007 motor vehicle accident, it is most probable that the forces sustained by [the Appellant] in his MVA of September 12, 2007 resulted in injuries to all of these cervical levels including internal disc disruption (IDD) of the C7-T1 disc.
>
> On the balance of probabilities, the whiplash-related fissuring (microtears) of the annulus fibrosis portion of the C7-T1 disc likely predisposed [the Appellant] to further neck injury. It is possible that the MVA of November 30, 2007 may have worsened [the Appellant's] C7-T1 internal disc disruption and predisposed his neck to yet further injury.
>
> The subsequent low velocity, low trauma stretching incident that occurred on January 11, 2008 in all probability produced just enough additional force on the damaged C7-T1 disc to cause further tearing of the annulus fibrosis portion of the disc, resulting in the sudden herniation of the soft nucleus pulposus portion of the disc and the sudden onset of more definitive neurological symptoms in the left C8 spinal nerve distribution (ulnar aspect of the left upper limb)."

On December 9, 2011, [Appellant's doctor #3] reported again, reviewing reports which had been submitted from [Appellant's physiatrist]. He rejected the idea that the Appellant's disc herniation was caused by age-related degenerative phenomenon, as it had not occurred where the Appellant actually had evidence of degeneration. He concluded:

> "In view of the evidence that [the Appellant] did not have any predisposing metabolic illnesses, that a left-sided herniation of the C7-T1 disc does not fit the pattern seen in age-related degenerative disc herniations that [the Appellant] experienced immediate post-MVA radicular neck pain extending down to his left hand with associated numbness and myotomal weakness, and that the C7-T1 disc herniation occurred on the symptomatic side within a few months of the September,

> 2007 MVA. It was the traumatic damage to the C7-T1 disc that materially contributed to the disc's structural compromise and ultimate complete herniation on January 11, 2008 and subsequent left-sided C8 radiculopathy.
>
> My opinion therefore remains that, on the balance of probabilities, the motor vehicle accident of September 12, 2007 materially contributed to [the Appellant's] left C8 radiculopathy."

[Appellant's doctor #3] testified at the hearing of the Appellant's appeal. He described his experience as a physician, training in the family practice anaesthesia program and experience in pain management clinics. He was qualified as a physician with expertise in chronic pain management.

[Appellant's doctor #3] reviewed and explained the anatomy of the spine, including joint discs, the spinal cord and spinal nerves. He also reviewed the makeup of the disc and explained the mechanics for degenerative disc disease. He explained the role of the annulus fibrosis and described tears which can occur. He also provided information regarding where a patient will experience symptoms of pain and how, when discs are injured.

In [Appellant's doctor #3's] view, disc herniations are more likely to occur where degenerative changes occur than at normal healthy levels. In his view, given that the Appellant's MRI showed no mention of degenerative changes at the level of the disc herniation, a herniation due to degeneration would have been more likely to happen at other levels. In his view, spontaneous disc herniation was a term used to refer to discs that herniated with relatively little force applied to the disc, and that they are not truly spontaneous. In his view, such a disc would have already been compromised to a significant degree.

He reviewed the numbness and muscle weakness documented in the Appellant by [Appellant's chiropractor], as well as the Appellant's description of what occurred on January 11, 2008. He noted that the Appellant's symptoms had continued on for four months prior to that date, until he stretched his arms and experienced a sudden exacerbation of symptoms, including numbness going down into his left hand. At that point, the C7-T1 disc likely herniated and pressed up against the C8 nerve root. [Appellant's doctor #3] believed that the disc must have been damaged before the stretch or it would not have herniated. It was likely at a state of internal disc disruption just prior to the stretch and the annular fibrosis integrity of the disc was less than that of the other levels above or below it. He did not think it was possible for a stretch of such minimal force to cause a disc herniation independently, but rather believed that there had to be a prior loss of integrity to the disc.

[Appellant's doctor #3] did not agree with [MPIC's doctor] that the medical literature supported the idea that stretching was the cause of the cervical disc herniation. He also did not agree with [Appellant's physiatrist's] opinions, as in his review, he noted it appeared that [Appellant's physiatrist] did not have the full information regarding the left upper extremity symptoms the Appellant had been experiencing since the motor vehicle accident and was basing his conclusions on the limited information that he had.

The Appellant's disc disruption could not be explained on the basis of degenerative disc disease at that level, and there were not metabolic, arthritic or vascular diseases which might otherwise explain it. However, his history included, four months earlier, a high velocity injury to his neck with signs and symptoms of injury to the nerve roots on the same side. Although there was no C8 radiculopathy immediately after the motor vehicle accident, there were some signs of loss and function and symptoms of numbness and weakness. The reports

of the symptoms are consistent with the herniation that ultimately occurred as things progressed more and there was more leakage to the last remaining strands of annular fibres. There was more inflammation or irritation to all the nerves in that area with perhaps some bulging or minor protrusion, and then a sudden breach of the remaining fibres.

[Appellant's doctor #3] was of the view that on a balance of probabilities, the motor vehicle accidents caused or materially contributed to the Appellant's C7-T1 disc herniation.

Evidence of [MPIC's doctor]

A medical consultant to MPIC's Health Care Services team, [MPIC's doctor] provided reports dated November 13, 2008 and March 12, 2009.

On November 13, 2008 he reviewed reports from [Appellant's doctor #1], [Appellant's chiropractor], [Appellant's doctor #2] and [Appellant's doctor #4], as well as Employee Questionnaire forms completed by the Appellant for [Appellant's employer's insurance company] and a report from the chiropractic consultant for MPIC. He noted:

> "In reviewing the medical documentation on file, the claimant had an injury to his cervical spine with left sided neurological findings per [Appellant's chiropractor]. I would concur with the opinion provided by the Chiropractic Consultant in that multiple levels of neurologic impairment documented is not generally expected or consistent with a single disc level injury; especially those findings that would indicate nerve dysfunction above the level of the lesion. The evolution of the findings indicated that the ongoing findings were of a higher (sic) than the level of the disc herniation identified by the MRI scan later done by [Appellant's doctor #2]. This again would not be consistent with the presence of the disc herniation at the C7-T1 level. Thus, although the symptoms may appear similar on first blush, the different levels of neurological presentation, the severity of symptomatology, as well as the differences in diagnoses would lead me to conclude that description of the immediate post-collision condition and the condition developing after January 11, 2008 are, in fact, different."

[MPIC's doctor] referred to the Appellant's indication in the [Appellant's employer's insurance company] form that:

> "...this condition occurred spontaneously on January 11, 2008 as a result of stretching of the neck. Although this was a low velocity, low trauma mechanism of injury, this action is recognized to be associated with the development of disc herniations in the cervical spine. Thus, it cannot be determined that the traumatic forces of the collision were the only potential causes for disc herniations in the cervical spine. The stretching of the neck can lead to the development of this condition independently."

[MPIC's doctor] indicated that he could not determine on a balance of probabilities that the condition that developed subsequent to January 11, 2008 was the same condition that developed following the motor vehicle collision in question.

[MPIC's doctor's] report of March 12, 2009 also reviewed a report from [Appellant's physiatrist], who had treated the Appellant. [Appellant's physiatrist] had stated that the Appellant suffered a WAD II injury as a result of the motor vehicle accident and subsequently, on or around January 18, 2008 (should be January 8, 2008), he had suffered the disc herniation at the C7-T1 level resulting in the left C8 radiculopathy. [MPIC's doctor] stated:

> "...It would thus appear that [Appellant's physiatrist's] opinion regarding the association between the disc herniation and the motor vehicle collision was the same as my opinion on November 13, 2008, based upon my review of his letter on file."

Therefore, [MPIC's doctor] did not alter his opinion regarding the association between the Appellant's disc herniation and cervical radiculopathy and the motor vehicle collision.

[MPIC's doctor] testified at the hearing of the Appellant's appeal. He was qualified as an expert in sports medicine and forensic review.

[MPIC's doctor] explained how cervical disc herniations originate and the various causes of that. He described the effect of the aging process on the spine and described the distinction between spontaneous and idiopathic herniations, explaining that idiopathic means we don't know how and spontaneous means through the activities of daily living and low trauma velocity effects.

In his view, stretching by itself is one of the low trauma forces that can lead to a disc herniation, similar to sneezing. Studies do not commonly look at such things, as they are so prevalent in the population.

[MPIC's doctor] explained the application of factors such as the Bradford Hill criteria, and the idea that associations don't necessarily equal causation.

In [MPIC's doctor's] view, although it is not common to see a disc herniation just by stretching in a [text deleted] year old, he has seen that in his patients, particularly within the aging population.

[MPIC's doctor] reviewed [Appellant's chiropractor's] reported findings in his examinations of the Appellant, including the documented neurological findings such as motor weakness and sensory weakness. In his view, for a cervical spine injury, these findings would be extremely rare, if not impossible. The findings involved five different levels of motor functions and one sensory function. In his view, it would be impossible to conclude that this resulted from an injury to the neck. Rather, it would have to be an injury in the brain.

[MPIC's doctor] believed the Appellant suffered from a diagnosed WAD II injury with no neurological impairment. There were no findings consistent with a C7-T1 disc injury or weakening and there was no evidence that a disc was involved in the motor vehicle accident. The positive tests which the Appellant responded to could possibly suggest nerve root involvement, but could also be a result of any condition affecting the neck and spine. Further, [Appellant's doctor #1], the Appellant's family doctor indicated that the Appellant's neurological exam was completely normal, putting forward a clinical diagnosis of diffuse muscle soreness. The reports reviewed by [MPIC's doctor] did not indicate ongoing issues and were not consistent with any type of C7-T1 or other disc injury.

[MPIC's doctor] also reviewed the [Appellant's employer's insurance company] documents completed by the Appellant and the reports of [Appellant's doctor #2]. He reviewed [Appellant's physiatrist's] opinion in context with the entire file. [Appellant's physiatrist's] diagnosis of WAD II injury with a subsequent herniation closely matched his own review of the file.

The upper extremity symptoms such as intermittent hand numbness following the motor vehicle accident could have been consistent with a lot of things, not only a disc injury. Many things could cause intermittent numbness, such as a rotator cuff radiation pattern, carpal tunnel syndrome, ulnar problems, compression of the nerve at the elbow, compression of the forearm or wrist, and muscle injury to the forearm or wrist. Therefore, that finding itself is not indicative of neurological injury in the neck, although [MPIC's doctor] did indicate that with a disc injury it is not uncommon to find neurological symptoms waxing and waning.

[MPIC's doctor] did not agree that there was any evidence on the file to support [Appellant's doctor #3's] view that the motor vehicle accident caused a disruption to the C7-T1 disc. [Appellant's doctor #3] relied heavily on [Appellant's chiropractor's] report documenting weakness at all of the myotomes and referred to the injury as an exacerbation. However, [Appellant's chiropractor's] findings would not be indicative of injury at that level. [Appellant's doctor #3] had erroneously put a lot faith in the natural history of the Appellant's condition being altered by the motor vehicle accident, but [MPIC's doctor] did not find evidence for that in the material he had reviewed. The force that would have had to be transmitted to cause such a disc injury would have had to be very large and that would likely have caused fracture or dislocation of the bones.

In [MPIC's doctor's] view the patient stretching at a low velocity provided just enough additional force to cause the disc herniation. [MPIC's doctor] could not find any proof that the motor vehicle accident led to damage to the structures of the spine.

Although [MPIC's doctor] recognized that the Appellant did not suffer from any degenerative changes at the C7-T1 level and did not suffer from any rare metabolic infectious or congenital diseases which could have led to the development of a disc herniation, he was still of the view that on a balance of probabilities, it could not be determined that the motor vehicle accidents directly led to the development of the disc herniation.

Evidence of [Appellant's physiatrist]:

[Appellant's physiatrist] treated the Appellant and provided reports dated June 23, 2008, October 8, 2008, February 5, 2009, February 14, 2011 and April 27, 2011. On February 5, 2009, [Appellant's physiatrist] reported:

> "Based on the above information it appears that following a motor vehicle collision of September 12, 2007, this patient sustained a Whiplash-Associated Disorder (WAD) II. Subsequently, on or around January 11, 2008, he sustained a disc herniation at C7-T1 resulting in left C8 radiculopathy."

Further documents and reports were provided to [Appellant's physiatrist], who reported again on March 4, 2011. His review led him to conclude that the first evidence of upper limb symptoms in the Appellant was noted on a pain diagram of November 27, 2007. At that time, there was no referral distal to the shoulder or scapula. [Appellant's physiatrist] described the acute deterioration which occurred on the morning of January 11, 2008, with subsequent development of symptom referral into his distal left upper limb and an inability to turn his head to the left.

He went on to state that notwithstanding the magnitude of the motor vehicle collision, cervical disc herniations are rarely reported following motor vehicle collision-related trauma. While motor vehicle accidents can be plausible causes of cervical disc herniation, on a balance of probabilities, they are not probable causes. He stated:

> "The temporal relationship between the acute clinical change on January 11, 2008 and the motor vehicle collisions represents either a four or two month gap between the energy exchange of a collision and the onset of new clinical symptoms. This time course would be inappropriate for a disc herniation that resulted from an acute traumatic energy exchange. Therefore, on a balance of probabilities, the temporal relationship between the motor vehicle collisions and the clinical presentation with signs/symptoms of disc herniation is medically improbable.
>
> One could argue that either of the motor vehicle collisions caused a subclinical injury to the claimant's C7-T1 disc such that it was not recognizable by physical examination. This assumed lesion could have led to a weakness in the disc that subsequently failed on January 11, 2008. Consistent with this line of reasoning, one could then argue that were it not for the motor vehicle collisions, the subsequent failure would not have ultimately occurred.
>
> Finally, the vast majority of cervical disc herniations occur spontaneously and in the absence of an obvious precipitating event, including trauma. Therefore, the more common and alternate explanation of the "cause" of this patient's disc herniation is

> that it occurred spontaneously and likely would have done so whether he had sustained a motor vehicle collisions (sic) or not."

[Appellant's physiatrist] also testified at the hearing into the Appellant's appeal. He was qualified as a physiatrist with expertise in the spine and forensic reviews. He reviewed the diagnosis of the Appellant's disc herniation at C7-T1 with left side C8 radiculopathy, and how the diagnosis was arrived at. He addressed the neck and upper limb symptoms, particularly in the hand and small finger, which the Appellant experienced.

[Appellant's physiatrist] also explained the Bradford Hill criteria, developed by a statistician to assist in identifying causes in research settings. These criteria can lay a foundation for forensic analysis such as the existence of a temporal relationship, the magnitude of an effect and plausibility.

[Appellant's physiatrist] had examined the Appellant, reviewed the imaging and reports and provided his own reports. He explained what a disc herniation is and how it occurs.

[Appellant's physiatrist] explained that it is not common to see disc herniations caused by trauma such as motor vehicle accidents. There are very few reported examples, if any, of this in the medical literature. Disc herniation can happen at all ages, but the bell curve shows most occurring between the third and fifth decade in life. Some disc herniations evolve over time and others occur acutely. Degenerative wear and tear can contribute but disc herniations do not necessarily occur at degenerative settings. A disc herniation can often be spontaneous or idiopathic like many other musculoskeletal events. It can occur from small motions like sneezing, coughing and stretching. We can't say precisely what happened, he explained.

[Appellant's physiatrist] could not say whether the January 11, 2008 stretching incident created enough force to cause a disc herniation or whether it just became acutely symptomatic, but on that day, things changed for the Appellant and from that point on the story became different than it had been after the motor vehicle accidents. There is no way to know for certain whether the Appellant had a weakened or compromised C7 disc after the motor vehicle accidents and before January 11, 2008. An annular tear can occur for no reason and can be found in asymptomatic people, so the mere finding of an annular tear in itself is not indicative of pathology. If a tear progresses to become a herniation, we have no idea when the tear occurred.

[Appellant's physiatrist] indicated that he had reviewed the documentation showing the Appellant's complaints following the motor vehicle accident and that they describe a whiplash. There are intermittent reports of some referral to the upper limb, but examinations by [Appellant's doctor #1] showed no neurological weakness, wasting or sensory loss. There was no objective evidence of neurological injury prior to January 2008 and no documentation supporting a finding of a C8 radiculopathy prior to that time. The Appellant's intermittent hand symptoms may have been consistent with nerve involvement but not necessarily so, as there are other structures, like rotator cuffs, etc. which can refer to the shoulder blades and as far as the hand. These examinations showed so much weakness that it is difficult to know the levels at which muscles in particular were weak.

Although the Appellant did have some left sided symptoms after the motor vehicle accident, many different symptoms occurred and what happened after January was very different from that.

When asked about [Appellant's doctor #3's] opinion that the disc herniation began with the motor vehicle accidents and that the January stretching incident was just the straw that broke the camel's back (with the Appellant's spine weakened from the motor vehicle accidents and being more susceptible to herniation), [Appellant's physiatrist] indicated that it was possible that the disc had weakened before January 2008 but there was no way of knowing that or when. Were that commonly the case, he stated, we would see more people with disc herniations and a recent history of motor vehicle accidents. But motor vehicle accidents are not a recognized risk factor for cervical herniations. Most disc herniations occur out of the blue without a certain explanation of cause.

Evidence of [Appellant's neurologist]:

[Appellant's neurologist], a neurologist, did not testify at the hearing into the Appellant's appeal. However, he did examine the Appellant and provided a report dated December 13, 2010. He stated:

> "On September 11 of 2007 he was involved in a road traffic accident where his vehicle was struck by another going through a red light. Following that he experienced pain in his posterior neck and in his left arm and hand with some numbness. He saw a chiropractor who documented the presence of sensory change at C6 level as well as motor changes involving C-5 – T1. Laterality was not initially defined however later he stated the symptoms were in the left arm. Pain diagrams after the initial accident revealed left sided neck pain referring to the left shoulder and both scapula. He stated to me in January of 2010 that he had suffered a fairly typical whiplash type of injury after the first accident but that he was having pain radiating into the left arm..."

[Appellant's neurologist] noted the second motor vehicle collision and that the Appellant awoke on January 11 of 2008 with increased pain and numbness in the left arm. An MRI revealed a left disc protrusion at C7-T1... He reported his examination findings concluding that the clinical findings were consistent with a C8 nerve lesion on the left side.

> "I believe that on the balance of probabilities the two aformentioned (sic) motor vehicle accidents materially contributed to the C7-T1 disc herniation. That is to say the accident did not directly cause the disc herniation but predisposed to it (sic) given the fact that he was having symptoms in the left arm following those accidents."

Submission for the Appellant:

Counsel for the Appellant framed the test for causation as requiring the Appellant to establish, on a balance of probabilities, that the disc herniation would not have occurred but for one or both of the motor vehicle accidents in question, or alternatively, that one of both of the motor vehicle accidents "materially contributed" to the disc herniation.

He submitted that the evidence clearly demonstrates that the C7-T1 disc was significantly compromised as a result of the violent forces in the September motor vehicle accident and that the Appellant's condition thereafter slowly improved up to the time of the second motor vehicle accident in November. Shortly after that collision, the symptoms progressively increased, with further deterioration documented as of January 8, 2008. Three days later, on January 11, 2008, the Appellant experienced an acute exacerbation of his condition with a low velocity, low force stretching of the neck.

Counsel reviewed the evidence in more detail, and included the Appellant's pre-accident excellent health and physical condition. He then reviewed the significant forces involved in the motor vehicle accidents, as well as the Appellant's immediate reporting of symptoms, which included not just pain but also numbness and intermittent strange feelings in his left hand. The objective findings on examination included sensory loss and motor weakness in the left arm up to the hand. There was also evidence from some physical examination tests which was consistent with nerve root compromise in the cervical spine.

The Appellant then testified that his condition appeared no better or worse, following the second motor vehicle accident, although he indicated that sometime in December of 2007 his symptoms slowly increased and continued to escalate, through January 8, 2008. Then, on January 11, 2008, the Appellant described an immediate exacerbation of the symptoms in the left neck, shoulder, arm and hand which was ultimately diagnosed as a moderate to large left posteriolateral disc protrusion with extrusion at the C7-T1 level resulting in left C8 radiculopathy.

There was clear overlap in the Appellant's symptoms before and after the disc herniation on January 11, 2008. The Appellant did not suggest that the C7-T1 disc herniated prior to January 11, 2008. Rather, he submitted that the C7-T1 disc was damaged or compromised in the first accident causing internal disc disruption (as described by [Appellant's doctor #3], who also referred to this as a sub-clinical injury, or annular tear). This disc may or may not have been further damaged in the second collision, but it is clear that the integrity of the disc was already significantly compromised prior to January 11, 2008.

While counsel admitted that a disc can develop weakness from age related degeneration, metabolic or congenital disorders, infections or trauma, followed by a disc herniation in the compromised disc, the Appellant showed none of these signs at the herniated level. In fact, the evidence from [Appellant's doctor #3], based on medical literature, indicated that disc herniations in the cervical spine at the C7-T1 level are fairly rare, and the incidence is even lower with left-sided herniations. In the Appellant's case, the disc herniation did not occur at the level most commonly associated with herniation in the cervical spine (C5-6), where the MRI also documented degenerative findings. Rather, the disc herniation occurred at C7-T1, the cervical level with the lowest incidence of herniation and where no degenerative changes

were identified on the MRI. Therefore, the disc herniation could not be explained on the basis of degeneration.

Counsel emphasized the importance of looking at the overall picture of the Appellant's documented symptoms and clinical findings on examination from the time of the first accident until the disc herniation. He submitted that in their reports and/or testimony, [Appellant's chiropractor], [Appellant's doctor #2], [Appellant's doctor #3] and [Appellant's neurologist] unanimously agreed that the Appellant had the same or very similar signs and symptoms before and after January 11, 2008, confirming that the disc herniation was in fact the same condition as that following the first accident in September 2007. It was submitted that in all probability, the Appellant sustained a combination of neurological injuries and soft tissue strains as a result of the first motor vehicle accident, and that the acute deterioration that occurred on January 11, 2008 was simply an exacerbation of the already present accident-related condition.

Given the unanimous testimony that spontaneous disc herniations occur in the context of an already significantly compromised disc (albeit possibly asymptomatic) and that stretching of the neck on January 11, 2008 did not involve any significant force or stress on the C7-T1 disc, it is impossible to escape the conclusion, it was submitted, that the C7-T1 disc was in a weakened or compromised state prior to January 11, 2008.

Counsel reviewed [Appellant's physiatrist's] evidence. Counsel submitted that his opinion should be viewed with caution, because it does not appear to have been based upon a balance of probabilities. Rather, he sought clear certainty as to cause, which applied a higher threshold of proof, approaching the level used in his clinical practice when attributing a

diagnosis to a particular set of findings. This theory of causation would require the Commission to completely ignore the very significant trauma to the cervical spine sustained in the course of two separate motor vehicle accidents, as well as the documented neurological findings after the first collision and the extremely low incidence of disc herniations at the C7-T1 level on the left side.

In contrast, counsel submitted that the more probable scenario was that the C7-T1 disc was normal and healthy prior to the first motor vehicle accident but was significantly compromised due to the violent forces in the first collision and even further damaged in the second collision. It then herniated spontaneously with the low velocity, low force stretching of the neck on January 11, 2008. It was [Appellant's doctor #3's] opinion that the stretching incident that occurred on January 11, 2008 probably did not significantly contribute to the C7-T1 pathology, but rather was the last "straw that broke the camel's back". Counsel submitted that "but for" the motor vehicle accidents the disc would not have herniated with simple stretching and, in the alternative, submitted that the motor vehicle accidents materially contributed to the disc herniation that occurred.

Submission for MPIC:

Counsel for MPIC submitted that the Appellant had not met the onus of showing that the Internal Review Officer erred in concluding that on a balance of probabilities the motor vehicle accidents did not cause or materially contribute to the Appellant's cervical disc herniation.

Counsel noted that although the first accident was quite serious, the documented injuries were WAD II or whiplash type injuries and that [Appellant's doctor #1] had not found any

neurological signs. [Appellant's chiropractor] also saw the Appellant and diagnosed WAD II injuries and not a WAD III injury (which is the appropriate diagnosis for neck and neurological signs). [MPIC's chiropractor], [MPIC's doctor] and [Appellant's physiatrist] then noted that [Appellant's chiropractor's] findings were not consistent with the neurological deficit associated with a disc injury.

[Appellant's physiatrist] and [MPIC's doctor] explained that [Appellant's chiropractor's] finding of involvement of five nerve roots with no reflex findings was inconsistent with a C8 radiculopathy. The sensory deficits noted did not conform to the type of symptoms which the Appellant reported in his hand, finger and thumb. Therefore, the report was problematic and [Appellant's chiropractor's] findings could not be used to support the theory that a disc injury occurred in the motor vehicle accident. He found no neurological abnormality, diagnosed a WAD II and not a WAD III, and never used the word disc in his reports.

Further, [Appellant's doctor #1] made no neurological findings one week following the motor vehicle accident. The Appellant may have had an annular tear prior to January 11, 2008, but we do not know for sure and we certainly can't relate it to the motor vehicle accidents. People in motor vehicle accidents do not have higher incidences of disc herniation and motor vehicle accidents do not typically result in disc herniations. The Appellant was [text deleted] years old at the time of the motor vehicle accident and was in the age range when people are prone to disc herniations. As indicated by the papers the Appellant completed for [Appellant's employer's insurance company] short-term disability benefits, at the time even he thought that his symptoms were from the stretching incident of January 11, 2008.

In reviewing [MPIC's doctor's] evidence, counsel noted that although a person should not normally herniate their cervical disc from stretching, people in their [text deleted] are more prone to herniated discs. They may have degeneration or they may have annular tears which are asymptomatic. At the end of the day, [MPIC's doctor] looked at everything (including [Appellant's doctor #1's] and [Appellant's chiropractor's] reports) in analyzing causation. He came to the conclusion that the motor vehicle accident did not play a role in the disc herniation.

[Appellant's physiatrist] explained that the Appellant's injuries were more in line with whiplash injuries, when one considers the multi focal muscular weakness experienced. The Appellant continued working and was getting better.

[Appellant's physiatrist] had an honest view that the Appellant's disc herniation was not related to the motor vehicle accidents. He is a physiatrist with expertise in the spine who treated the Appellant. He has expertise in assessing causation as well as in treating people with disc herniations. [Appellant's physiatrist's] evidence established that the Appellant did not have a weakened disc from a motor vehicle accident prior to January 11, 2008. There was no evidence of any C8 radiculopathy prior to that date. The presence of intermittent hand numbness was not necessarily indicative of a disc injury, as it could also be due to rotator cuff issues or injury to the neck joints or ligaments.

[Appellant's physiatrist] was familiar with and applied relevant Bradford-Hill criteria in determining causation. His evidence was that the stretching incident of January 11, 2008 was a significant independent event that resulted in the Appellant's disc herniation and was a more likely and plausible source for the disc herniation. He explained that we don't really

know when a disc herniates and we can only tell when a person becomes symptomatic. On a balance of probabilities, it was his view that the motor vehicle accidents were not the cause of and did not contribute to the cervical disc herniation.

Counsel submitted that [Appellant's doctor #2] could not really explain how he came to the conclusion that the motor vehicle accidents contributed to the disc herniation and that he was not familiar with and did not apply the Bradford-Hill criteria in determining causation. [Appellant's doctor #2's] reports were inconsistent, because his first report stated he could not determine if the herniation related to the motor vehicle accident. It was also submitted that he was wrong in saying that [Appellant's chiropractor's] report could be consistent with a C8 nerve irritation and in saying that left hand numbness symptoms suggested a disc injury.

In reviewing [Appellant's doctor #3's] evidence, counsel noted that he was not an expert in the spine or in determining causation. He submitted that [Appellant's doctor #3] was "cherry picking" parts of [Appellant's chiropractor's] reports that supported his theory, while ignoring other parts which did not. He ignored the part of [Appellant's chiropractor's] reports which noted no neurologic abnormality and diagnosed a WAD II and not a WAD III injury. He also ignored [Appellant's doctor #1's] report which found normal neurological findings.

Counsel submitted that because enough doubt had been cast on the validity of [Appellant's chiropractor's] neurological findings, [Appellant's doctor #3's] opinion could not be followed, as his opinion was largely based on [Appellant's chiropractor's] findings. Without these findings, there was really no evidence, other than speculation, to suggest that the Appellant had a disc injury from the motor vehicle accidents. There was insufficient evidence to support [Appellant's doctor #3's] theory. In a conflict between [Appellant's

doctor #3] and [Appellant's doctor #2] and [Appellant's physiatrist], [Appellant's physiatrist's] evidence should be preferred because of his expertise in the spine and causation. Likewise, [MPIC's doctor] has experience in causation and is a sports medicine expert whose opinion should also be preferred over those of [Appellant's doctor #2] or [Appellant's doctor #3].

At the end of the day, counsel submitted that at best the Appellant had raised the possibility that the motor vehicle accidents may have been involved. However, this is not sufficient. There needs to be more convincing evidence in order to find that the cervical disc herniation was related to the motor vehicle accidents. Thus, when one considers all the evidence, the Appellant has failed to meet the onus of establishing that the Internal Review decision erred in finding that on a balance of probabilities, the motor vehicle accidents did not cause or materially contribute to a cervical disc herniation. The Internal Review decision should be confirmed, and the appeal dismissed.

Discussion:

The MPIC Act provides:

> 70(1) In this Part,
>
> **"bodily injury caused by an automobile"** means any bodily injury caused by an automobile, by the use of an automobile, or by a load, including bodily injury caused by a trailer used with an automobile, but not including bodily injury caused
>
> (a) by the autonomous act of an animal that is part of the load, or
>
> (b) because of an action performed by the victim in connection with the maintenance, repair, alteration or improvement of an automobile;

The onus is on the Appellant to show, on a balance of probabilities, that one or both of the motor vehicle accidents caused or materially contributed to the disc herniation he suffered.

The Appellant's position was that the disc in question was normal and healthy prior to the first motor vehicle accident. It was then significantly compromised due to the violent forces of the accidents and herniated spontaneously with the low velocity, low force stretching of the neck on January 11, 2008. He submitted that this was a probable scenario and that the evidence established that the accidents materially contributed to the Appellant's disc herniation.

MPIC took the position that on a balance of probabilities, the motor vehicle accidents did not cause or materially contribute to the cervical disc herniation.

The test of whether a motor vehicle accident materially contributed to an Appellant's or plaintiff's condition has been applied by this Commission, as well as by the Manitoba Court of Queen's Bench in *Liebrecht v. Egesz et al* (1999) 135 Man.R.(2d) 206, and Manitoba Court of Appeal 2000 (150) Man.R.(2d) 257.

In reviewing the evidence before the Commission, the panel took note of the following:

- Prior to the motor vehicle accident the Appellant was generally healthy and fit. He was physically active with no symptoms or problems in his neck or upper arms, aside from a history of successful orthopedic surgery.
- There were no documented findings of degeneration in the Appellant's spine at the C7-T1 level, and the panel concludes that the evidence did not show that degenerative changes were a factor leading to the herniation of the Appellant's C7-T1 disc.

- All the witnesses agreed that there must have been internal disc compromise for the January 11, 2008 disc herniation which occurred.
- All of the witnesses, except for [MPIC's doctor], agreed that the stretching incident, while it did act as a proximal trigger to the full expression of disc herniation symptoms on January 11, 2008, was not an independent cause of the herniation.
- The Appellant consistently reported symptoms of left arm and hand numbness and pain immediately following and continuing on after the first motor vehicle accident. While some of these reports may have been of an intermittent character, which came and went, the doctors agreed that such symptoms may wax and wane.
- Although [Appellant's chiropractor] did not note sufficient neurological signs and symptoms for him to classify the injury as a WAD III instead of a WAD II, he made note of motor, sensory signs, symptoms and weakness in the upper extremities, without attributing an additional diagnosis to them.
- [Appellant's doctor #1] did not note any neurological symptoms, and indicated that the Appellant's neurological exam was normal. He also noted complaints of left neck and left hand numbness and that the patient's muscles "lock-up along the ulnar border of his left hand", leading him to recommend a nerve conduction study.
- The Appellant's symptoms following the first motor vehicle accident did start to show improvement, although they were still present to such a degree at the time of the second motor vehicle accident that the Appellant thought his symptoms were similar in nature and did not represent much of a change.
- In December of 2007, the Appellant started to notice a progression of those same symptoms, leading to the need for an extra chiropractic appointment on January 8, 2008. This history provided by the Appellant was confirmed and supported by documentation from his caregiver at the time.

- The witnesses agreed with a common basic description of how a disc injury causes symptoms.
- [MPIC's doctor], [Appellant's physiatrist], [Appellant's doctor #2] and [Appellant's doctor #3] all agreed that trauma can cause a herniation, as can degeneration and other factors.
- Although [Appellant's physiatrist] was of the view that whatever happened in January of 2008 was different than the symptoms reported relative to the motor vehicle accident, the evidence shows that while the symptoms in January of 2008 differed in intensity, they were of a similar nature, albeit exacerbated, after the January 11, 2008 incident.

In view of this evidence, the panel has considered the opinions of the various medical experts who provided testimony and/or reports.

[MPIC's doctor] did not examine the Appellant, but provided expert file reviews and opinions. Unlike the evidence heard from the other experts who testified ([Appellant's doctor #2], [Appellant's doctor #3] and [Appellant's physiatrist]), [MPIC's doctor] appeared to be of the view, expressed in his report dated November 13, 2008, that the stretching incident was the independent cause of the herniation.

[Appellant's physiatrist] did examine and treat the Appellant as well as providing an expert review. He was honestly of the view that the Appellant's disc herniation was not related to his motor vehicle accidents and we found his evidence credible regarding this belief. [Appellant's physiatrist] relied to a large extent on the absence of studies to establish motor vehicles as a risk factor for disc herniations, although recognizing that cervical herniations

and herniations at the C7-T1 level in particular, are quite rare in the population in any event. He also relied upon his expertise in clinical practice with idiopathic herniations for which there is no known cause. In his view, the story of the Appellant's symptoms and conditions changed dramatically on January 11, 2008. To him, this represented a new condition, not connected to the motor vehicle accidents.

He did agree on cross-examination that there was some overlap between the symptoms which occurred following the motor vehicle accidents and the exacerbated symptoms which presented on January 11, 2008 and following. He also agreed that the mechanics of the motor vehicle accidents would probably have put a lot of stress on the Appellant's spine.

However, [Appellant's physiatrist] differed in his analysis. His evidence was that we don't know exactly how the herniation happened and that while the Appellant did have reported and documented symptoms of hand and arm pain and numbness, these could be attributed to other causes and were not necessarily indicative of a relationship to the herniation. He agreed that there may have been an annular tear prior to January 11, 2008, but in the absence of objective imaging studies from that period, we don't know for sure.

However, the panel is not of the view that we are required to determine with scientific certainty precisely how the symptoms and herniation occurred. [Appellant's physiatrist] suggests that, at best, the Appellant has raised a possibility of a causal connection, but that we don't know for sure exactly how the herniation happened. The Appellant suggests that [Appellant's physiatrist] applied a higher standard of proof, perhaps the same standard he might use in his clinical practice.

The panel agrees that the Commission is not required to determine causation with scientific certainty. In this regard, we have noted the comments of the Supreme Court of Canada in *Farrell v. Snell* (1990) 72 D.L.R. (4th) 289, where the Court noted (at page 300) that causation need not be determined by scientific precision.

This concept was reviewed again by the Supreme Court of Canada in *Athey v. Leonati et al* (1996) 140 D.L.R. (4th) 235, where the Court, in discussing the recognition that causation can be established where the defendant's negligence "materially contributed" to the occurrence of the injury, also noted (at page 239), that the causation test is not to be applied too rigidly and that causation may not be determined by scientific precision, but rather by ordinary common sense.

The panel finds that, applying the threshold test of a balance of probabilities, rather than a test of scientific certainty, the Appellant has indeed met the onus upon him to establish a causal connection between the motor vehicle accident and the disc herniation. This was established through not just his own credible testimony, but also through the reports and evidence of [Appellant's doctor #2] and [Appellant's doctor #3], and the opinion of [Appellant's neurologist].

As [Appellant's doctor #2] stated:

> "I have yet to find a causal relationship between simple stretching and specific disc herniation however this evidence may be available in sources yet unfound by myself. I am of the opinion that there is no specific way to approve or disprove [the Appellant's] case. Once again, it would fall on burden of the balance of probabilities.
>
> My opinion would be that since [the Appellant] had no evidence of any medical contact prior to his motor vehicle accidents and certainly has evidence from imaging studies of disc herniation that would be in keeping with his presentation to myself,

> that on the balance of probabilities there was a reason to believe that the motor vehicle accidents materially contributed to his problem."

[Appellant's doctor #3] stated:

> "In view of the evidence that [the Appellant] did not have any predisposing metabolic illnesses, that left-sided herniation of the C7-T1 disc does not fit the pattern seen in age-related degenerative disc herniations, that [the Appellant] experienced immediate post-MVA radicular neck pain extending down to his left hand with associated numbness and myotomal weakness, and that the C7-T1 disc herniation occurred on the symptomatic side within a few months of the September 12, 2007 MVA, my opinion is that the C7-T1 disc must have been damaged at the time of the September, 2007 MVA. It was the traumatic damage to the C7-T1 disc that materially contributed to the disc's structural compromise and ultimate complete herniation on January 11, 2008, and subsequent left-sided C8 radiculopathy,
>
> My opinion therefore remains that, on the balance of probabilities, the motor vehicle accident of September 12, 2007 materially contributed to [the Appellant's] left C8 radiculopathy."

[Appellant's neurologist's] opinion of December 13, 2010 expressed a similar view. He noted the pain experienced by the Appellant in his posterior neck, left arm and hand, with some numbness following the motor vehicle accident. He considered the chiropractor's documentation of sensory and motor changes on the left side. Following examination and clinical findings consistent with a C8 nerve root lesion on the left side, [Appellant's neurologist] stated:

> "I believe that on the balance of probabilities the two aformentioned (sic) motor vehicle accidents materially contributed to the C7-T1 disc herniation. That is to say the accident did not directly cause the disc herniation but predisposed to it given the fact that he was having symptoms in the left arm following those accidents."

The panel agrees and finds that the Appellant, through the evidence reviewed, has met the onus of showing, on a balance of probabilities, that there is a connection between the accidents and herniation. After being hit on the left side in a motor vehicle accident and reporting consistent left sided pain and symptoms (including some numbness, in the neck,

shoulder, arm and hand) following an exacerbation of symptoms on January 11, 2008 he was eventually diagnosed with a left C7-T1 herniation and C8 radiculopathy.

The opinions of [Appellant's doctor #2], [Appellant's doctor #3] and [Appellant's neurologist] characterized the Appellant's reported left sided neck, arm and hand symptoms as confirming their views that the motor vehicle accident materially contributed to a compromised disc and predisposed the Appellant to the eventual development of the C7-T1 disc herniation and resulting symptoms.

Accordingly, the Commission finds that the Appellant has met the onus upon him of showing, on a balance of probabilities that the decision of the Internal Review Officer dated March 24, 2009 was in error. The Appellant's appeal is allowed and he will be entitled to IRI benefits following January 2008. The Internal Review decision dated March 24, 2009 is therefore rescinded.

Dated at Winnipeg this 13 day of January, 2015.

LAURA DIAMOND

HEATHER MITCHELL

SANDRA OAKLEY