

Automobile Injury Compensation Appeal Commission

IN THE MATTER OF an appeal by [the Appellant]

AICAC File No.: AC-97-18

PANEL: Mr. J. F. Reeh Taylor, Q.C. (Chairperson)
Mrs. Lila Goodspeed
Mr. F. Les Cox

APPEARANCES: Manitoba Public Insurance Corporation ('MPIC') represented
by
Mr. Tom Strutt
[Text deleted], the Appellant, appeared in person

HEARING DATE: March 20th, 1998

ISSUE: Whether rupture of biceps tendon caused by motor vehicle
accident.

RELEVANT SECTIONS: Sections 138, 136(1)(a) and (d) of the MPIC Act and Section 5
of Regulation 40/94

**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 Appellant, [text deleted], was involved in two motor vehicle accidents:

- (a) in the first, on September 24th, 1995, [the Appellant] was driving and his wife was a passenger in the front seat of his vehicle, when a deer sprang across the highway in front of him; he braked instantly when he saw it coming, but unfortunately was unable to avoid the animal which hit the left front corner of his car. [the Appellant] says that the impact

smashed the grill and light assembly at that corner. [The Appellant] got out of his car and dragged the dying animal to the shoulder of the highway before proceeding on with his journey. He reported the accident to the RCMP on September 26th, upon which date he also attended upon his family physician, [text deleted], of [text deleted]. [Appellant's doctor] referred him to [text deleted] Physiotherapy & Sports Injury Clinic for physiotherapy, diagnosing 'cervical muscle strain secondary to MVA'. [Appellant's doctor] recommended physiotherapy once or twice per week for about six months. In his application for compensation, [the Appellant] reported 'struck deer - not disabled'.

- (b) the second accident occurred on January 15th, 1996, when the vehicle that [the Appellant] was driving was apparently rear-ended and in which he may, possibly, have sustained a Class 2 Whiplash Associated Disorder.

On October 20th, 1995, [Appellant's doctor's] diagnosis was consistent with his earlier one, namely 'cervical muscle strain'; he continued to prescribe physiotherapy, noting that 'the victim is capable of resuming his main occupation', although 'his work has been very painful for him'.

On January 18th, 1996, [Appellant's doctor] issued a very brief note, to the effect that '[the Appellant] should continue his current physio'.

[Appellant's doctor] referred [the Appellant] to [text deleted], a specialist in orthopaedic and plastic surgery and a colleague of [Appellant's doctor] in the [text deleted] Medical Clinic in [text deleted]. So far as can be determined from [Appellant's orthopaedic and plastic

surgeon's] report, this referral was made as a result of the January 15th, 1996 accident. [Appellant's orthopaedic and plastic surgeon's] reporting letter of February 29th, 1996, addressed to MPIC, says, in part:

Within the past two weeks or so, he felt something tear in the right shoulder. Since then, his biceps muscle has been bulging on the front of his right upper arm. On examination today, there is no doubt at all that the long head of the biceps muscle has become detached from its point of fixation on the top of the shoulder socket, and almost certainly this has been the result of the first accident where the tendon may well have been partly torn, or at least strained, and later ruptured altogether. This condition is not amenable to surgery and it will leave some permanent disability. The brachialis muscle is still undamaged, but the power in flexing his right elbow will be considerably diminished as a result of the injury.

The second injury has been less severe, but he has simply had a strain of the joints of the neck which are affected by osteoarthritis, and it is likely that the discomfort following the rear-end collision should gradually settle in time.

On March 7th, 1996, in response to an inquiry from MPIC, [Appellant's doctor] indicated for the first time that [the Appellant] had complained of pain to his shoulder as well as pain to his neck following his first accident of September 24th, 1995. After describing in some detail the complaints voiced to him by [the Appellant] and the numerous tasks that [the Appellant] claimed to be unable to do, [Appellant's doctor] points out that [the Appellant] is a journeyman mechanic as well as a farmer and gives the opinion that [the Appellant] is definitely disabled from performing many of the duties associated with those two, concurrent careers. He therefore suggests very strongly that [the Appellant] continue his physiotherapy, including therapy to the neck as well as to the right shoulder. [Appellant's doctor] concludes that letter by diagnosing three conditions of [the Appellant]: ongoing neck pain due to mild osteoarthritis; a contusion and

tendonitis to [the Appellant's] right shoulder which, although not mentioned in any earlier reports from [Appellant's doctor], is attributed by [Appellant's doctor] to the September motor vehicle accident; and the rupture of the biceps tendon referred to in the report of [Appellant's orthopaedic and plastic surgeon], with whom [Appellant's doctor] agrees.

[The Appellant], in discussions with MPIC's Adjusters and in his evidence before this Commission, readily acknowledged that it was not until about February 14th or 15th, while vigorously shovelling and "flinging" snow, that, as he put it, he "felt something pop" in his right upper arm. [The Appellant] says that this "pop" or tearing was at the top of his bicep, rather than at the right shoulder as was reported by [Appellant's orthopaedic and plastic surgeon].

[The Appellant] makes an argument that we shall try to summarize as follows:

The deer had sprung suddenly in front of my vehicle from the right; fortunately, I was only travelling at about 80 kilometres per hour when I saw it but, in the split second of time that I had in which to brake, my speed at the time of impact probably was not much less than 60 kmph; certainly, the impact destroyed the left front corner of my car and, after the accident, I realized that my steering column had been bent a little bit out of alignment. No part of my upper torso was in contact with any part of the interior of the vehicle. My wife, a passenger in the car, was not injured. We were both wearing our seatbelts. I got out of the car and dragged the carcass of the deer from the point where it lay, just to the left of the midline of the highway, over to the ditch. My theory is that the force of the

impact was transmitted along the body of the vehicle and through the steering column to the steering wheel, which I was holding tightly with a rigid right arm, thus causing the rupture or, at the very least, creating a tear or weakness which, over the ensuing weeks, produced the result of which I now complain.

[The Appellant] says, further, that he has spent his whole life in farming and in working with machinery, and he feels that he has been building up strength rather than wearing away the parts of his upper arm and shoulder that, he claims, were injured in the motor vehicle accident. True, he says, the final "pop" occurred while he was shovelling and throwing snow, but that was merely the final straw that caused the rupture; the real damage was done in the course of the September, 1995 accident.

The position of MPIC is that there is no real link between that first accident and the bicep tear; the fact that the one followed the other is more coincidence than causation. The more probable cause, says MPIC, lies in the very fact that [the Appellant] had lead an extremely active life, making frequent and strenuous use of his right arm and, in doing so, has brought about a gradual degeneration that was inevitably going to cause the ruptured bicep tendon, whether or not the motor vehicle accident had occurred.

[The Appellant] seeks further physiotherapy, rehabilitation therapy and strengthening through occupational therapy, together with compensation for any permanent impairment that may be found to exist. MPIC's Internal Review Officer denied him those benefits, from which decision

he now appeals.

While there are apparently other issues in dispute between the parties, the only issue that we have been asked to decide is whether, in our view, the apparent tear, and resulting bulge, in [the Appellant's] right bicep was, on a reasonable balance of probabilities, caused by his first motor vehicle accident on September 24th, 1995.

As is not infrequently the case when questions of causation arise in personal injury matters, we are troubled by conflicting medical opinions. In addition to the views of [Appellant's doctor] and [Appellant's orthopaedic and plastic surgeon] referred to above, the file contains a report from [text deleted] Physiotherapy & Sports Injury Clinic. A memorandum prepared by [text deleted], the Adjuster at MPIC's [text deleted] office dealing with this claim, bearing date February 29th, 1996, indicates that he had spoken with a representative of [text deleted] on September 24th, 1995 and had been told that, so far as that Clinic was concerned, [the Appellant] 'had a very minor problem' and, given suitable authorization from [the Appellant], the Clinic would provide MPIC with the information that was needed to enable the insurer to close its file. That, however, seems later to have been partly retracted, and the formal report from the Clinic, dated March 14th, 1996, reflects complaints by [the Appellant] of pain across the base of his neck and into his right shoulder, accompanied by tightness and tension headaches at the base of his skull, when first assessed on October 3rd, 1995. [Text deleted], the physiotherapist who prepared that report, noted that although there was a general restriction of [the Appellant's] range of motion, most notable into extension, it was difficult to say whether this was a result of the

motor vehicle accident or of normal, degenerative changes. [Appellant's physiotherapist] also noted an apparent, mild case of tendonitis of the right shoulder. Physiotherapy treatment following that September 24th, 1995 accident consisted of heat, stretching, mechanical neck traction and strengthening exercises for the right rotator cuff muscles. [The Appellant] is reported to have been making slow but gradual progress with that treatment, the slowness being possibly attributable to a previous injury to [the Appellant's] cervical spine.

There are several subsequent reports on file from [Appellant's doctor], one of which, dated January 2nd, 1997, contains a copy of a clinical note apparently dated December 27th, 1995 which does make a passing reference to [the Appellant's] shoulder, in the following words: 'hypertension tendonitis R. shoulder (discussed with physio)'. Unfortunately, even that note does not indicate the source of the problem since, as is noted elsewhere on the file, 'pain around the shoulder joint is not always associated with specific shoulder pathology. It can be radiating from a proximal cervical spine problem, or from paracervical or shoulder girdle musculature involvement.' The most recent and comprehensive report from [Appellant's doctor] bears date January 20th, 1997, and relates almost entirely to [the Appellant's] complaint of neck pain, although it does mention that [the Appellant] 'has right arm weakness as a result of his right biceps tendon injury'.

As a result of a suggestion made by [text deleted], the Medical Director of MPIC's Claims Services Department, [the Appellant] was referred by [Appellant's doctor] for an independent medical examination by [text deleted], a specialist in orthopaedic surgery at the [text deleted]

Clinic. [independent orthopaedic surgeon] examined [the Appellant] on May 5th of 1997. The history taken from [the Appellant] by [independent orthopaedic surgeon] is somewhat at odds with the medical history reported by [Appellant's doctor], in one, important, chronological aspect of this claim. [The Appellant] apparently told [independent orthopaedic surgeon] that he developed his right shoulder pain, radiating down the lateral aspect of his arm to the elbow, and occasionally to the hand, within a few days after his accident of September 24th, 1995; [the Appellant] reported to [independent orthopaedic surgeon] that, although he had no apparent injuries as a result of his accident of January 1996, it was only some time after that second accident that he began to develop neck discomfort. Rather surprisingly, it is upon the neck discomfort that [Appellant's doctor] concentrated almost exclusively, at least until the time of [the Appellant's] referral to [Appellant's orthopaedic and plastic surgeon] in February of 1996, after the second motor vehicle accident.

In [independent orthopaedic surgeon's] report of May 5th, 1997, he also notes that the range of motion of [the Appellant's] right shoulder, including forward elevation, abduction, external rotation and internal rotation are full as compared to his left shoulder. There was no obvious crepitus and no significant rotator cuff weakness was detected. Similarly, the displaced muscle belly of the bicep was not tender and the range of motion of [the Appellant's] right elbow was full. There was no significant weakness on flexion or supination. X-rays failed to show any significant pathology.

It is, perhaps, noteworthy also that [independent orthopaedic surgeon] recommended an impingement test with the injection of Xylocaine to aid in further diagnosis, with the possible addition of a trial treatment of a subacromial cortisone, but [the Appellant] refused both of those suggestions, as was his right.

[Independent orthopaedic surgeon's] report goes on to say, in part:

In summary, I don't have a good explanation for this man's shoulder pain. He certainly has a rupture of the long head of biceps, which may give him mild loss of forearm supinator strength and, to a lesser extent, elbow flexion strength, but this is not usually a functional problem and chronic pain related to this would be highly unusual. He does have some historical features of rotator cuff impingement although this can't be confirmed by examination and he doesn't allow an impingement test which might give some further information. He does have some subjective loss of sensation about the shoulder but not on the typical area of the axillary nerve nor in the nerve root distribution for the nerve roots which might be associated with is lower cervical spondylosis.

Reiterating that he did not have a clear diagnosis for [the Appellant's] pain and was not really able to comment on the expected duration of symptoms or disability, [independent orthopaedic surgeon] added that he was not sure whether any further physiotherapy or other modalities would be of significant benefit. He did not feel that surgery was indicated. He did find evidence of degenerative disk disease in the cervical spine at C5-6 and C6-7.

Offsetting the views of [Appellant's orthopaedic and plastic surgeon] and [Appellant's doctor] are those of [MPIC's doctor], referred to above. [MPIC's doctor] refers, in particular, to the text 'Sports Injury Assessment and Rehabilitation', copyright 1992 by Dr. D. C. Reid. In particular, on page 949 of that text, Dr. Reid (referred to by [MPIC's doctor] as a world renowned

orthopaedic surgeon, physical therapist and sports medicine physician) says:

Most biceps tendon ruptures are caused by subacromial impingement with tendon degeneration. With severe degenerative change the rupture may be also asymptomatic. Usually, a sudden forceful lifting effort or fall causes the disruption.

[MPIC's doctor] points out that the foregoing history is consistent with [the Appellant] rupturing his tendon with his lifting of snow. [The Appellant's] pre-accident history as a farmer and mechanic, says [MPIC's doctor], would no doubt be associated with long term shoulder stresses, which almost certainly would have been accompanied by some attrition, not only of the rotator cuff but of the long head of the biceps.

In addition to the text to which [MPIC's doctor] refers us, we would draw the attention of the parties to the following:

Orthopaedics in Primary Care by Drs. Steinberg, Akins and Baran at page 42

Acute Rupture of the Long Head of the Biceps Tendon

The tendon of the long head of the biceps muscle passes through the impingement interval of the shoulder and, as a result, is subject to degenerative or attritional disease.....in individuals usually over the age of 40, a complete rupture of the tendon may occur.

Clinical Characteristics

The individual is usually 40 years of age or older and has had episodes of impingement in the past. The patient reports a sudden and usually painful popping sensation over the anterior upper arm or shoulder during a lifting effort. The retracted belly of the biceps muscle bulges over the anterior aspect of the distal arm and a concavity is visible over the anterior aspect of the proximal arm. The distal bulge is particularly prominent when the elbow is flexed against resistance. The upper arm is painful and tender to palpation for several days following the rupture. Active use of the shoulder and elbow often increases the discomfort. Ecchymosis generally appears over the distal arm and elbow several

days after the rupture. As the acute tissue irritation subsides, elbow flexion-forearm supination strength gradually returns, and with exercise can return to near normal. Usually, however, a 5 to 10 percent deficit persists.

(The authors of this text suggest that surgical repair is only practicable if the problem is diagnosed within five to seven days since, after that, the ruptured tendon is generally too contracted or fibrosed to allow repair. Fortunately, they conclude, these individuals generally do quite well with conservative, non-operative care, despite the altered cosmetic appearance of their arm and approximately 5 to 10 percent loss of elbow flexion -forearm supination strength.)

Musculoskeletal Pain and Disability - text by Drs. Kaplan and Tanner, at page 104

Biceps Tendon (Long Head) Rupture

The biceps tendon receives frictional stresses with most shoulder motions, so over time may develop attritional changes predisposing to rupture where trying to handle undue loads. Abnormalities of the intertubercular groove and trauma act to initiate many of these cases. A 'snap' may be felt followed by visible, palpable upper arm bulge, which is the contracted muscle belly. Onset of localized pain is instantaneous. Weakness (compared with the normal side) can be seen when the patient tries to flex the shoulder against resistance, and pain can be referred to the forearm.

Outline of Orthopaedics - text by Dr. C. Adams, at pages 242/3

Rupture of Long Tendon of Biceps

The long tendon of the biceps is one of several tendons in the body that are prone to rupture without violent stress or injury.....

Cause

The tendon will not rupture under ordinary stresses unless it is already weak. The predisposing factor is age-degeneration, probably accelerated by oft-repeated friction_and angulation at the point where the tendon enters the bicipital groove of the humerus.

Clinical Features

The patient is usually a man past middle age. While lifting or pulling with the arm he feels something give way in the region of the front of the shoulder. There is only moderate discomfort, and often the patient neglects to seek early advice. Later he may notice an unusual bulge of the muscle in front of the arm. On examination soon after the rupture, there is slight tenderness over the bicipital groove of the humerus. When the patient contracts the biceps muscle, as in flexing the elbow or supinating the forearm against resistance, the belly of the long head is seen to bunch up into a short round mass like a ball. There is surprisingly little weakness of elbow flexion or of supination.

Treatment

The disability is usually so slight that operation is not required. When repair is considered necessary, it is sufficient to suture the distal stump of the tendon to the walls of the bicipital groove; the proximal stump is ignored.

Tenosynovitis of Long Tendon of Biceps (Biceps Tendonitis)

This is an uncommon and rather minor affection characterized by pain and local tenderness in the region of the bicipital groove of the humerus and the long tendon of the biceps. It is generally ascribed to frictional irritation of the tendon within its groove.

Clinical Features

The complaint is of pain in the front of the shoulder, worse on active use of the arm. Examination reveals local tenderness in the course of the long tendon of the biceps. The pain can often be exacerbated by moving the shoulder while the tendon is tautened by forced supination of the forearm.

Treatment

Excessive use of the shoulder should be avoided, and in severe cases a sling may be worn for part of the day. A course of short wave diathermy to the tender area often seems to hasten recovery.

Textbook of Disorders and Injuries of the Musculoskeletal System by Dr. Salter at page 243

Rupture of the Biceps Tendon

Pre-existing degenerative changes in the tendon of the long head of the biceps muscle may weaken it sufficiently that it may rupture during active flexion of the elbow against resistance, as in lifting a heavy object.

The patient experiences immediate pain and is aware that something has 'given way'. Examination reveals that when the patient flexes the elbow (using the short head of biceps, brachialis and brachioradialis muscles), the muscle belly of the long head of biceps contracts into a 'ball' which is more distal than normally.

The resultant disability is not particularly severe in an elderly person, but for a man who requires strong elbow flexion for his work it may be necessary to suture the distal stump of the ruptured tendon into the bicipital groove.

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As will be seen from the foregoing quoted passages from various texts, the almost unanimous view of the learned authors is that the ruptured bicep tendon of the kind sustained by [the Appellant] is most likely to have resulted from degenerative or attritional changes. The only text that we could find making use of the word 'trauma' was the text of Drs. Kaplan and Tanner and, even in that context, we do not interpret the word as necessarily implying the application of external force. Trauma, in its medical sense, simply means any injury, whether physical or mental. In our respectful view, but on a very strong balance of probabilities, the rupture of [the Appellant's] bicep tendon was not caused by either of his motor vehicle accidents. Rather, it was caused by the self-inflicted, albeit inadvertent, trauma of the sudden lifting and heaving of a heavy load of snow, superimposed upon an already degenerative condition - in other words, a rupture waiting to happen.

We have been at greater pains to examine the medical literature in this particular case, in light of the opinions expressed by [Appellant's orthopaedic and plastic surgeon] and [Appellant's

doctor], two well respected and competent practitioners. As well, [the Appellant] himself appears to have immutably fixed in his mind that his shoulder and bicep tendon problems all stem from his September 1995 accident. [Independent orthopaedic surgeon] was more cautious in composing his report and, other than reciting the history apparently given him by [the Appellant], carefully refrains from concluding that the September 1995 accident was the cause of the problem of which [the Appellant] now complains.

DISPOSITION:

For the reasons noted above, we are unable to conclude that the rupture of [the Appellant's] bicep tendon, occurring as it did some five months after his motor vehicle accident, was caused by that accident. His appeal must therefore fail and the decision of MPIC's Internal Review Officer must be confirmed.

Dated at Winnipeg this 24th day of April 1998.

J. F. REEH TAYLOR, Q.C.

LILA GOODSPEED

F. LES COX