

CARPAL TUNNEL WORKERS' COMPENSATION CLAIMS IN IOWA

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I. INTRODUCTION

The purpose of Iowa's workers' compensation law is to establish a system of compensation for "employees sustaining injuries arising out of and in the course of employment . . . [with the] compensation . . . paid by the employer in lieu of other liability."¹

Iowa's system of compensation has adapted to fulfill the system's purpose in the unique context of carpal tunnel² and other cumulative trauma injuries. To do this, the system defined carpal tunnel claims to fit within the parameters of one of the compensable categories of disability in the Iowa Code.³ If the definition of carpal tunnel syndrome did not fit within either the occupational disease or the occupational injury categories of the Iowa

1. *Hawkins v. Bleakely*, 243 U.S. 210, 213 (1917). In *Hawkins*, an employer brought a suit in equity challenging the constitutionality of the Iowa Workers' Compensation Act. *Id.*

2. Carpal tunnel syndrome is "a common disorder of the wrist and hand characterized by pain, tingling, and muscular weakness, caused by pressure on the median nerve in the wrist area and often associated with trauma." THE RANDOM HOUSE DICTIONARY OF THE ENGLISH LANGUAGE 318 (2d ed. 1987). See *infra* Part II.A.

3. See *Stephenson v. Furnas Elec. Co.*, 522 N.W.2d 828, 832 (Iowa 1994); *Noble v. Lamoni Prods.*, 512 N.W.2d 290, 293 (Iowa 1994).

workers' compensation law, workers with carpal tunnel syndrome would be unable to receive compensation for the condition.⁴

Iowa law has made adaptations in its definition of carpal tunnel claims. Such adaptations reflect the increasing number of carpal tunnel claims.⁵ One commentator stated that repetitive motion workers' compensation claims (of which carpal tunnel is a sub-category) place "increasing strain upon an already burdened workers' compensation system."⁶ Cumulative trauma disorders, like carpal tunnel syndrome, have been called "the occupational illness of the decade."⁷ A 1992 Labor Department study found repetitive trauma as a causal factor in fifty-two percent of all occupational illnesses, with carpal tunnel syndrome comprising thirty-six percent of all repetitive trauma injuries.⁸ In addition to being prevalent, carpal tunnel claims are also expensive. The average cost of a single workers' compensation claim for carpal tunnel syndrome was \$29,000 in 1990.⁹

This Note will discuss the contours of Iowa's workers' compensation law as it has adapted to define carpal tunnel injuries. Part II provides the necessary background information for understanding carpal tunnel injuries. Part III of the Note will discuss Iowa's treatment of carpal tunnel syndrome as an occupational injury. Part IV will discuss the procedural aspects of the carpal tunnel case. Finally, Part V of the Note will analyze the methods used to prove the carpal tunnel case.

4. See 1B ARTHUR LARSON & LEX K. LARSON, *THE LAW OF WORKMEN'S COMPENSATION* § 41.32, at 7-497 (1996). The definition of carpal tunnel syndrome determines whether it is compensable under workers' compensation law.

The present problem of definition is: Under general definitions of occupational disease in statutes granting compensation for such disease, how much is affirmatively included? The important boundary becomes now, not . . . separating occupational disease from accident, since compensability lies on both sides of that boundary, but the boundary separating occupational disease from diseases that are neither accidental nor occupational, but common to mankind and not distinctively associated with the employment [and therefore not compensable].

Id.; see also *Luttrell v. Industrial Comm'n*, 507 N.E.2d 533 (Ill. App. Ct. 1987). The legal definitions of carpal tunnel syndrome as either an injury or an occupational disease do not conform to the ordinary and popularly understood descriptions of the syndrome. *Id.* at 538. A doctor called as a witness in *Luttrell* stated that carpal tunnel syndrome is not a "disease" "because the cause of the condition is not entirely worked out." *Id.* Another doctor called as a witness in this case stated that "carpal tunnel syndrome was a condition of a nonspecific origin." *Id.*

5. H. Douglas Jones & Cathy Jackson, *Cumulative Trauma Disorders: A Repetitive Strain on the Workers' Compensation System*, 20 N. KY. L. REV. 765, 765 (1993).

6. *Id.*

7. *Id.* (quoting Marvin Dainoff, *The Illness of the Decade*, *COMPUTERWORLD*, Apr. 13, 1992, at 27).

8. Laura M. Litvan, *Controlling Wrist and Back Injuries; Labor Department to Propose Regulations to Prevent Cumulative Trauma Disorders*, *NATION'S BUS.*, Aug. 1994, at 44, 44.

9. Lawrence Chesler, *Repetitive Motion Injury and Cumulative Trauma Disorders*, *N.Y. ST. B.J.*, Dec. 1993, at 12, 12.

II. BACKGROUND INFORMATION

A. Nature of the Carpal Tunnel Injury

Iowa's workers' compensation system has been forced to adapt because of the unusual nature of the carpal tunnel injury. Because of its nature, carpal tunnel syndrome can arguably be classified as either an occupational injury or an occupational illness.¹⁰

Carpal tunnel syndrome can develop suddenly when major trauma to the wrist causes swelling within the fibro-osseous tunnel of the wrist.¹¹ Like other cumulative trauma injuries, carpal tunnel syndrome can also develop gradually when "force is applied repeatedly over a prolonged period to the same muscle group, joint, or tendon, . . . [which] may cause soft-tissue microtears and trauma."¹² "The resulting injury and inflammatory response may lead to . . . nerve entrapment."¹³ "Repetitive wrist or hand motions can also cause prolonged, elevated pressure inside the carpal tunnel, which may diminish blood flow to the nerve and cause nerve block."¹⁴

Job related risk factors associated with carpal tunnel syndrome include the following: "(1) repetition, (2) high force, (3) awkward joint posture, (4) direct pressure, (5) vibration, and (6) prolonged constrained posture."¹⁵ These factors have an impact on the incidence of carpal tunnel syndrome in some occupations more than in others. For instance, as many as fifteen percent of employees in the meat packing industry suffer from carpal tunnel syndrome.¹⁶ There are also nonoccupational factors that can encourage development of carpal tunnel syndrome. Nonoccupational factors associated with carpal tunnel syndrome include diabetes mellitus, rheumatoid arthritis, and pregnancy.¹⁷

The symptoms [of carpal tunnel syndrome] are characterized by bouts of pain and sensations of numbness, prickling, or tingling (paresthesia) in the wrist and in the thumb and first three digits of the hand. These sensations

10. *Berry v. Boeing Military Airplanes*, 885 P.2d 1261, 1265 (Kan. Ct. App. 1994).

11. JAMES G. ZIMMERLY & RICHARD M. PATTERSON, *LAWYERS' MEDICAL CYCLOPEDIA OF PERSONAL INJURIES AND ALLIED SPECIALTIES* § 31.42a (3d ed. 1989).

12. David M. Rempel et al., *Work-Related Cumulative Trauma Disorders of the Upper Extremity*, 267 JAMA 838, 838 (1992).

13. *Id.*

14. *Id.*

15. *Id.*

16. *Id.*

17. ZIMMERLY & PATTERSON, *supra* note 11, § 31.42a (Supp. 1993). Some researchers argue that carpal tunnel syndrome is not related to workplace factors. See Norton M. Hadler, *Cumulative Trauma Disorders, An Iatrogenic Concept*, 32 J. OCCUPATIONAL MED. 38, 38 (1990). Dr. Norton Hadler stated that the proliferation of cumulative trauma disorders in the workplace "is not a clinical event; it is a sociopolitical phenomenon." *Id.* Lawrence Chesler notes a study in which a stronger correlation existed between factors such as "job insecurity, work pressure, boredom, and surges in work load, and the incidence of upper extremity disorders of various kinds" than in other factors controlled by the ergonomics of the workplace. Chesler, *supra* note 9, at 14.

are most severe at night. Weakness . . . may occur, resulting in difficulties in performing tasks such as unscrewing a bottle top or turning a key.¹⁸

B. Iowa's Workers' Compensation System

Although a number of factors can cause carpal tunnel syndrome, a worker can only receive compensation in Iowa if the syndrome fits within one of the compensable categories of Iowa's Workers' Compensation Act.¹⁹ In general, the Iowa Workers' Compensation Act provides compensation for employees who have injuries, occupational diseases, or occupational hearing loss.²⁰ Nonexempt Iowa employers must provide workers' compensation benefits to their employees.²¹ The law requires employers to either obtain liability insurance to cover their workers' compensation liability²² or provide proof to the Insurance Commissioner that the employer has the ability to pay potential workers' compensation claims.²³ Employers who do not provide nonexempt employees with workers' compensation coverage may be liable for damages in a suit filed by an injured employee.²⁴

The Iowa State Industrial Commissioner administers Iowa's workers' compensation system.²⁵ A Deputy Industrial Commissioner hears disputed claims²⁶ and either party can appeal the Deputy Industrial Commissioner's decisions within the agency.²⁷ The parties can also appeal decisions of the Industrial Commissioner to an Iowa District Court.²⁸ The district court is "limited to correcting legal error. . . . [and t]he findings of the commissioner are akin to a jury verdict."²⁹

The Iowa Workmen's Compensation Law has always been more liberal than those of most states in covering physical harm. This is because it requires only a "personal injury" rather than an "accident" or a "personal injury by accident." This "personal injury" standard precluded the necessity of an "accident or unusual occurrence" and the need for the injury to be traceable to a definite time and place.³⁰

18. 8 AM. JUR. PROOF OF FACTS 3D *Carpal Tunnel Syndrome* § 3 (1990).

19. See Arthur C. Hedberg, Jr. & Phillip Vonderhaar, *An Overview of the Iowa Workers' Compensation Act*, 30 DRAKE L. REV. 809, 812 (1980-81). "The rights and remedies of covered employees . . . are generally exclusive—they have no common law right of recovery against their employer . . ." *Id.*

20. Iowa Code § 85 deals with work-related injuries and occupational diseases. IOWA CODE § 85 (1995). Iowa Code § 85B addresses occupational hearing loss. *Id.* § 85B.

21. *Id.* § 85.3.

22. *Id.* § 87.1.

23. *Id.* § 87.11.

24. *Id.* § 87.21.

25. See *id.* § 86.

26. *Id.* § 86.17.

27. *Id.* § 86.24.

28. *Id.* § 86.26.

29. *Second Injury Fund v. Shank*, 516 N.W.2d 808, 812 (Iowa 1994).

30. Harry W. Dahl, *The Iowa Workmen's Compensation Law and Federal Recommendations*, 24 DRAKE L. REV. 336, 341-42 (1975).

III. IOWA CARPAL TUNNEL CLAIMS AS OCCUPATIONAL INJURY

A. Defining Carpal Tunnel As an Occupational Injury

Iowa defines carpal tunnel syndrome as an occupational injury rather than an occupational disease.³¹ Treating carpal tunnel workers' compensation claims as an occupational disease affects the burden of proof, procedural requirements, the compensation amount for the disability, and the availability of second injury fund payments for that claim.³²

The Iowa Supreme Court affirmed the Industrial Commissioner's treatment of carpal tunnel syndrome as an injury rather than a disease in *Noble v.*

31. See *Stephenson v. Furnas Elec. Co.*, 522 N.W.2d 828, 832 (Iowa 1994); *Noble v. Lamoni Prods.*, 512 N.W.2d 290, 295 (Iowa 1994).

Other states are divided in their treatment of carpal tunnel syndrome. Some states treat carpal tunnel syndrome as an accidental injury while others treat carpal tunnel syndrome as an occupational disease. Jay M. Zitter, Annotation, *Workers' Compensation: Recovery for Carpal Tunnel Syndrome*, 14 A.L.R.5th 1, 12-13 (1993). Like Iowa, Maine's Workers' Compensation Act provides compensation for an employee who sustains a "personal injury." See ME. REV. STAT. ANN. tit. 39-A, § 201(1) (West Supp. 1994); IOWA CODE § 85.3(1) (1995). Maine defines carpal tunnel syndrome as a personal injury rather than an occupational disease. See *Ross v. Oxford Paper Co.*, 363 A.2d 712, 714-15 (Me. 1976). Minnesota also treats carpal tunnel syndrome as a personal injury. See *Jensen v. Kronick's Floor Covering Serv.*, 245 N.W.2d 230, 232 (Minn. 1976). Pennsylvania defines carpal tunnel syndrome as a work-related injury. See *Oakes v. Workmen's Compensation Appeal Bd.*, 445 A.2d 838, 840 (Pa. Commw. Ct. 1982).

Several states have defined carpal tunnel syndrome as an "accidental injury" or an "accident." See, e.g., *King v. Vermont Am. Corp.*, 664 So. 2d 214, 217 (Ala. Civ. App. 1994) (Robertson, P.J., concurring); *Festa v. Teleflex, Inc.*, 382 So. 2d 122, 123 (Fla. Dist. Ct. App. 1980); *Peoria County Belwood Nursing Home v. Industrial Comm'n*, 505 N.E.2d 1026, 1027-28 (Ill. 1987); *Kraft v. Flathead Valley Labor & Contractors*, 792 P.2d 1094, 1096 (Mont. 1990); *Schlup v. Auburn Needleworks, Inc.*, 479 N.W.2d 440, 446 (Neb. 1992); *Mid-Continent Cas. Co. v. Bradley*, 855 P.2d 145, 146 (Okla. Ct. App. 1993); *A.C. Lawrence Leather Co. v. Britt*, 414 S.W.2d 830, 833 (Tenn. 1967); *Stouffer Foods Corp. v. Industrial Comm'n*, 801 P.2d 179, 182 (Utah Ct. App. 1990).

The following cases are examples of states treating carpal tunnel syndrome as an occupational disease. See, e.g., *Kinney v. Tupperware Co.*, 792 P.2d 330, 332 (Idaho 1990); *Alford v. Environmental Monitoring*, 646 So. 2d 961, 963 (La. Ct. App. 1994); *Lettering Unlimited v. Guy*, 582 A.2d 996, 998-99 (Md. 1990); *Collins v. Neevel Luggage Mfg. Co.*, 481 S.W.2d 548, 553 (Mo. Ct. App. 1972); *Department of Indus. Relations v. Circus Circus Enters.*, 705 P.2d 645, 646 (Nev. 1985); *Knott v. Blue Bell, Inc.*, 373 S.E.2d 481, 483 (Va. Ct. App. 1988).

Arkansas defines carpal tunnel syndrome as a "compensable injury" in its Workers' Compensation Statute. See ARK. CODE ANN. § 11-9-102(5)(A)(ii)(a) (Michie 1987). Kansas and Colorado treat carpal tunnel syndrome as an occupational disease in some instances and as an injury in others. See, e.g., *Delta Drywall v. Industrial Claim Appeals Office*, 868 P.2d 1155, 1158 (Colo. Ct. App. 1993) (holding that the injury suffered was industrial in nature); *Berry v. Boeing Military Airplanes*, 885 P.2d 1261, 1267 (Kan. 1994) (declining to label carpal tunnel syndrome as either an injury or an occupational disease stating that the issue was "nothing more than an interesting issue in semantics").

32. *Noble v. Lamoni Prods.*, Nos. 857575, 851309, Iowa Indus. Comm'n 9-10 (May 7, 1992) (citing *Dahl*, *supra* note 30, at 342-43), *aff'd*, 512 N.W.2d 290 (Iowa 1994).

Lamoni Products.³³ Noble made a carpal tunnel workers' compensation claim after she contracted the condition while working for Lamoni Products.³⁴ Her assigned "task required repeated flexion and extension of her wrists."³⁵ After Noble was assigned to the task for approximately three to four weeks, she reported numbness and loss of feeling in her hands.³⁶ Noble was diagnosed as having bilateral carpal tunnel syndrome.³⁷ She subsequently underwent surgery to correct the carpal tunnel syndrome.³⁸ After the plant she worked for closed, she filed an arbitration petition with the Iowa Industrial Commissioner alleging she had contracted carpal tunnel syndrome as an occupational disease.³⁹ In reviewing the Industrial Commissioner's ruling on Noble's case, the court first noted the statutory definition of "occupational disease."⁴⁰ Iowa law defines an occupational disease as follows:

Occupational diseases shall be only those diseases which arise out of and in the course of the employee's employment. Such diseases shall have a direct causal connection with the employment and must have followed as a natural incident thereto from injurious exposure occasioned by the nature of the employment. Such disease must be incidental to the character of the business, occupation or process in which the employee was employed and not independent of the employment. Such disease need not have been foreseen or expected but after its contraction it must appear to have had its origin in a risk connected with the employment and to have resulted from that source as an incident and rational consequence. A disease which follows from a hazard to which an employee has or would have been equally exposed outside of said occupation is not compensable as an occupational disease.⁴¹

The court found that carpal tunnel syndrome was not the type of condition the legislature intended to be considered an occupational disease—noting that the record did not contain any evidence relating carpal tunnel syndrome to any of the occupational diseases specifically listed in the Occupational Disease Statute before the statute's amendment in 1973.⁴² The court approved of the Industrial Commissioner's answer to Noble's argument comparing carpal tunnel syndrome to the statutorily defined occupational diseases bur-

33. *Noble v. Lamoni Prods.*, 512 N.W.2d 290, 295 (Iowa 1994).

34. *Id.* at 291.

35. *Id.*

36. *Id.*

37. *Id.* at 291-92.

38. *Id.* at 292.

39. *Id.*

40. *Id.*

41. IOWA CODE § 85A.8 (1995).

42. *Noble v. Lamoni Prods.*, 512 N.W.2d at 293. Before Iowa Code § 85A was amended in 1973, the following were listed as occupational diseases: lead poisoning, mercury poisoning, poisoning by nitrous fumes, poisoning by carbon monoxide, poisoning by methyl chloride halogens, poisoning by benzol, dermatitis, zinc poisoning, manganese poisoning, bursitis, synovitis, tenosynovitis, chrome ulceration, cyanide poisoning, brucellosis, erysipelioid, silicosis, conjunctivitis, and disability due to overexposure to radioactive materials. IOWA CODE § 85A.9 (1971).

sitis and tenosynovitis.⁴³ The court concluded that the Industrial Commissioner was correct in his contention that bursitis and tenosynovitis would now be considered as cumulative trauma cases, which are treated as injuries under Iowa's Workers' Compensation Law.⁴⁴

The court also dispensed with Noble's argument that carpal tunnel syndrome met the definition of an occupational disease set forth in *McSpadden v. Big Ben Coal*.⁴⁵ Noble argued carpal tunnel syndrome met the *McSpadden* factors of being "causally related to the exposure to harmful conditions of employment; and second, that those conditions are more prevalent in the employment concerned than in everyday life."⁴⁶ The court disregarded Noble's claim that carpal tunnel syndrome constituted an occupational disease because the requirements set out in *McSpadden* presume the existence of a disease.⁴⁷ The court stated the *McSpadden* factors relate to causation rather than to the definition of disease.⁴⁸

The *Noble* court also agreed with the Industrial Commissioner's definition of "disease."⁴⁹ The Industrial Commissioner "concluded that a disease is commonly understood to result when the body is invaded by outside agents such as bacteria, virus, poison, toxins or germs."⁵⁰ The court then noted that none of the definitions the Industrial Commissioner examined for the definition of disease dealt with disease that was the result of trauma.⁵¹ The court favorably cited *Luttrell v. Industrial Commission*⁵² which stated:

[a]n "injury" is distinguished from a "disease" by virtue of the fact that an injury has its origin in a specific, identifiable trauma or physical occurrence, or in the case of repetitive trauma, a series of such occurrences. A disease, on the other hand originates from a source that is neither traumatic nor physical⁵³

The court noted Noble's injury was consistent with injuries compensable under the cumulative trauma rule.⁵⁴ The court affirmed the Industrial Commissioner's use of the cumulative trauma rule from *McKeever Custom Cabinets v. Smith*⁵⁵ in cases involving carpal tunnel syndrome.⁵⁶

43. *Noble v. Lamoni Prods.*, 512 N.W.2d at 293-94.

44. *Id.* at 294.

45. *McSpadden v. Big Ben Coal*, 288 N.W.2d 181 (Iowa 1980).

46. *Noble v. Lamoni Prods.*, 512 N.W.2d at 294 (citing *McSpadden v. Big Ben Coal*, 288 N.W.2d at 190).

47. *Id.*

48. *Id.*

49. *Id.*

50. *Id.* at 294-95.

51. *Id.*

52. *Luttrell v. Industrial Comm'n*, 507 N.E.2d 943 (Ill. App. Ct. 1987).

53. *Noble v. Lamoni Prods.*, 512 N.W.2d at 295 (quoting *Luttrell v. Industrial Comm'n*, 507 N.E.2d at 541-42).

54. *Id.* at 293.

55. *McKeever Custom Cabinets v. Smith*, 379 N.W.2d 368 (Iowa 1985). See *infra* Part III.B.

B. The Cumulative Trauma Rule

The cumulative trauma rule applies when the disability develops over a period of time.⁵⁷ "[I]t is not necessary that plaintiff prove his disability results from a sudden unexpected traumatic event. It is sufficient to show merely that the disability was caused by a work activity which can be gradual and progressive in nature."⁵⁸ Under the cumulative trauma rule, "each tiny bump . . . or strain . . . is regarded as an accidental occurrence."⁵⁹ The court in *Noble* stated there was "no error in the [C]ommissioner's characterization of Noble's condition as an injury, not a disease. The record supports [the Commissioner's] finding that her disorder resulted from repeated traumas to her wrists and hands."⁶⁰

By adopting the cumulative trauma rule, the court included carpal tunnel syndrome within the common law definition of a personal injury, which is made compensable by Iowa Code section 85.3(1).⁶¹ The common law definition of injury is:

traumatic or other hurt or damage to the health or body of an employee . . . that acts extraneously to the natural processes of nature, and thereby impairs the health, overcomes, injures, interrupts or destroys some function of the body, or otherwise damages or injures a part or all of the body.⁶²

Finding that each force or trauma which causes carpal tunnel syndrome⁶³ is an injury event places carpal tunnel syndrome within the common law definition of an injury in Iowa.⁶⁴

One of the consequences of defining carpal tunnel syndrome as an injury is that the system must come up with a method of determining the date of the injury event.

56. *Noble v. Lamoni Prods.*, 512 N.W.2d at 293.

57. *McKeever Custom Cabinets v. Smith*, 379 N.W.2d at 373.

58. *Id.* (quoting *Harper v. Kast Metals Corp.*, 397 So. 2d 529, 531 (La. Ct. App. 1981)).

59. 1B LARSON & LARSON, *supra* note 4, § 39.40, at 7-423-31. Larson states that the cumulative trauma doctrine was first used in England in *Selvage v. Charles Burrell & Sons, Ltd.*, 1 K.B. 355 (C.A. 1921). In *Selvage*, the claimant received a series of scratches that developed into blood poisoning while working as a finisher of shell adapters. *Id.* at 356. The blood poisoning developed into arthritis which crippled the worker. *Id.* One of the judges in the case stated: "I really can see no reason why if the incapacity results from a series of cuts and the subsequent admission of poison which has a cumulative effect, so that the incapacity instead of happening suddenly, gradually results, that fact should make any difference." *Id.* at 366-67.

60. *Noble v. Lamoni Prods.*, 512 N.W.2d at 295.

61. IOWA CODE § 85.3(1) (1995).

62. *Almquist v. Shenandoah Nurseries, Inc.*, 254 N.W. 35, 39 (Iowa 1934).

63. *See Rempel et al.*, *supra* note 12.

64. *See Noble v. Lamoni Prods.*, Nos. 857575, 851309, Iowa Indus. Comm'n 13 (May 7, 1992) ("Although the external forces were spread out over time and were made up of a series of micro-traumas, nevertheless, they were traumas and as such constitute injuries, not a disease."), *aff'd*, 512 N.W.2d 290 (Iowa 1994).

The date of injury is an important determination given that "a number of important questions cannot be answered unless a date of injury or accident is fixed, such as which employer and carrier is on the risk, whether notice of injury and claim are within the statutory period, whether statutory amendments were in effect, which wage basis applies, and many others."⁶⁵

IV. PROCEDURAL EFFECTS OF CLASSIFYING CARPAL TUNNEL AS AN OCCUPATIONAL INJURY

A. Limitations of Actions

An injured worker must initiate a workers' compensation action within two years of the date of the injury.⁶⁶ The Iowa Supreme Court in *McKeever Custom Cabinets v. Smith* stated that an injury occurs in a cumulative trauma case "when pain prevents the employee from continuing to work."⁶⁷ The court held that it is "inclined" towards a rule which sets the date of injury as the time when pain prevented the employee from continuing work.⁶⁸ The court characterized this rule as proper because "clearly the employee is disabled and injured when, because of pain or physical inability, he can no longer work."⁶⁹ The Iowa Industrial Commissioner applied the *McKeever* rule in fixing the date of injury in *Harris v. Wilson Foods Corp.*,⁷⁰ but fixed the date of injury as the date of the claimant's carpal tunnel surgery.⁷¹ Judy Harris began working for Wilson Foods on September 8, 1980.⁷² Her job required repetitive gripping and pulling.⁷³ An entry in Harris's employee medical records, dated October 15, 1981, stated she was "[e]xperiencing bilateral hand pain and numbness."⁷⁴ Harris sought treatment from a physician on November 24, 1981.⁷⁵ The physician's records indicated Harris had pain and numbness in both hands.⁷⁶ Another physician performed an electromyography on Harris's wrists the same day and found she had severe carpal tunnel syndrome in the right wrist, but no evidence of carpal tunnel syndrome in the left wrist.⁷⁷ Harris underwent surgery for carpal tunnel

65. *Oscar Mayer Foods Corp. v. Tasler*, 483 N.W.2d 824, 829 (Iowa 1992) (quoting 1B LARSON & LARSON, *supra* note 4, § 39.10).

66. IOWA CODE § 85.26(1) (1995). The two-year limitation of actions applies to both personal injury and occupational disease claims. *Id.*

67. *McKeever Custom Cabinets v. Smith*, 379 N.W.2d 368, 374 (Iowa 1985) (citing 1B LARSON & LARSON, *supra* note 4, § 39.50, at 7-350.28).

68. *Id.*

69. *Id.*

70. *Harris v. Wilson Foods Corp.*, Nos. 688326, 808328, Iowa Indus. Comm'n (Dec. 22, 1988).

71. *Id.* Arguably, the Commissioner set the date of injury as the time when Harris's pain presented her with the need for medical attention.

72. *Id.* at 2.

73. *Id.*

74. *Id.*

75. *Id.*

76. *Id.* at 2-3.

77. *Id.* at 3.

release on the right wrist on December 17, 1981.⁷⁸ Several entries in Harris's medical records at work indicated she was having continual problems with her left hand.⁷⁹ Harris consulted another physician in the summer of 1983.⁸⁰ This physician performed a carpal tunnel release on Harris's left wrist and allowed her to return to work on November 27, 1983.⁸¹ The physician who first treated Harris in 1981 opined in a 1986 letter that Harris likely had carpal tunnel syndrome in the left wrist in 1981 when he performed the carpal tunnel release on Harris's right wrist, contrary to his earlier opinion.⁸² The Industrial Commissioner applied the *McKeever* statute of limitations rule for cumulative trauma injuries and stated that an employee in Iowa is injured when "because of pain or physical disability, the claimant can no longer work."⁸³ The Commissioner found Harris's injury to the right wrist occurred on December 17, 1981 (the date of Harris's first surgery for carpal tunnel), noting that the electromyography was positive only on the right side.⁸⁴ The Commissioner found the injury to Harris's left hand occurred on the date of her carpal tunnel release for that hand.⁸⁵

B. Requirement of Notice

Determining the date of the employee's injury is important for the requirement of employer notice as well as for limitations of actions. No compensation will be allowed unless the employee gives notice to the employer within ninety days from the date of injury.⁸⁶ The court in *Oscar Mayer Foods Corp. v. Tasler*,⁸⁷ determined that the date of injury for the purpose of computing benefits was the "time at which the disability manifests itself."⁸⁸ "Manifestation" is best characterized as "the date on which both the fact of the injury and the causal relationship of the injury to the claimant's employment would have become plainly apparent to a reasonable person."⁸⁹ The

78. *Id.* at 4.

79. *Id.*

80. *Id.*

81. *Id.*

82. *Id.* at 5.

83. *Id.* at 7-8.

84. *Id.* at 8.

85. *Id.* at 9.

86. IOWA CODE § 85.23 (1995). "No particular form of notice shall be required . . . if the notice is sufficient to advise the employer that a certain employee, by name, received an injury in the course of employment on or about a specified time, at or near a certain place." *Id.* § 85.24.

Due process considerations may require the injured employee to notify the employer that the employee will assert a cumulative trauma injury. See *Oscar Mayer Foods Corp. v. Tasler*, 483 N.W.2d 824, 828 (Iowa 1992). "Due process requires that a party 'be informed somehow of the issue involved in order to prevent surprise at the hearing and allow an opportunity to prepare . . .'" *Id.* (quoting *Wedergren v. Board of Dirs.*, 307 N.W.2d 12, 16 (Iowa 1981)).

87. *Oscar Mayer Foods Corp. v. Tasler*, 483 N.W.2d 824 (Iowa 1992).

88. *Id.* at 829 (quoting 1B LARSON & LARSON, *supra* note 4, § 39.50, at 7-350.28).

89. *Id.* (quoting *Bellwood Nursing Home v. Industrial Comm'n*, 505 N.E.2d 1026, 1029 (Ill. 1987)).

court rejected an interpretation of manifestation that would have required an employee with a cumulative trauma injury to use the date that the employee became aware of the injury through medical consultation as the date of injury.⁹⁰ The Iowa Court of Appeals interpreted *Tasler* to require an employee to notify the employer of an injury within ninety days from the date that the employee became aware the injury affected employment.⁹¹ The court noted that the purpose of the notice law⁹² was to protect "employers by insuring they are alerted 'to the possibility of a claim so that an investigation can be made while the information is fresh.'"⁹³ The court also noted the importance of a prompt investigation when there was a single accident and a likelihood of fresh information, but acknowledged fresh information was not likely to exist when the injury "has been developing for a number of years."⁹⁴

V. PROVING THE CARPAL TUNNEL CASE

In a workers' compensation case, the burden of proof is on the injured worker and that worker must prove the elements of his case by a preponderance of the evidence.⁹⁵ In proving the case, it is necessary for the injured worker to use medical and nonmedical evidence.⁹⁶ The worker presenting the case should be prepared to present both expert and lay testimony.⁹⁷

A. Elements of the Case Analyzed

Iowa law defines carpal tunnel syndrome as an occupational injury. The Iowa Code states: "[E]very employer, not specifically excepted by the provisions of this chapter, shall . . . pay compensation . . . for any and all personal injuries sustained by an employee arising out of and in the course of employment."⁹⁸ In other words, the workers' compensation claimant must prove: (1) he was an employee,⁹⁹ (2) he sustained a personal injury,¹⁰⁰ (3) the

90. *Id.*

91. *Venenga v. John Deere Component Works*, 498 N.W.2d 422, 425 (Iowa Ct. App. 1993).

92. IOWA CODE § 85.24 (1995).

93. *Venenga v. John Deere Component Works*, 498 N.W.2d at 425 (citing *Dillinger v. Sioux City*, 368 N.W.2d 176, 180 (Iowa 1985)).

94. *Id.*

95. *Dunlavey v. Economy Fire & Cas. Co.*, 526 N.W.2d 845, 849 (Iowa 1995). The court stated that "[a] possibility is insufficient; a probability is necessary." *Id.* (quoting *Anderson v. Oscar Mayer & Co.*, 217 N.W.2d 531, 535 (Iowa 1974)).

96. *Miller v. Lauridsen Foods, Inc.*, 525 N.W.2d 417, 421 (Iowa 1994). "It is a fundamental requirement that the commissioner consider all evidence, both medical and nonmedical." *Id.*

97. *Id.* "Lay witness testimony may be both relevant and material upon the cause and extent of injury." *Id.*

98. IOWA CODE § 85.3(1) (1995).

99. *Beier Glass Co. v. Brundige*, 329 N.W.2d 280, 286 (Iowa 1983). An injured worker must show an employer-employee relationship to collect benefits. *Id.*; see Michelle M.

injury was caused by the employment,¹⁰¹ and (4) the injury occurred during the time period of the employment.¹⁰²

1. *Proving Injury*

A significant portion of the evidence presented to prove the existence of a carpal tunnel injury will be evidence presented by experts.¹⁰³ The injured worker can use the expert's testimony to relate the worker's symptoms to the existence of carpal tunnel syndrome and to explain the diagnosis of carpal tunnel syndrome.¹⁰⁴ The trier of fact determines the weight to give the expert

Lasswell, Note, *Workers' Compensation: Determining the Status of a Worker As an Employee or an Independent Contractor*, 43 DRAKE L. REV. 419, 425 (1994).

100. See *Almquist v. Shenandoah Nurseries*, 254 N.W. 35, 39 (Iowa 1934). The court defined "injury" in the following terms:

A personal injury . . . means an injury to the body, the impairment of health, or a disease, not excluded by the act, which comes about, not through the natural building up and tearing down of the human body, but because of a traumatic or other hurt or damage to the health or body of an employee The injury to the human body . . . must be something . . . that acts extraneously to the natural processes of nature, and thereby impairs the health, overcomes, injures, interrupts, or destroys some function of the body, or otherwise damages or injures a part or all of the body.

Id.

101. *Cedar Rapids Community Sch. v. Cady*, 278 N.W.2d 298, 299 (Iowa 1979). Arising out of employment refers to "the cause and origin of an injury." *Id.* The court further explained that the injury must be a natural incident of the work meaning it "must be a rational consequence of a hazard connected with the employment." *Id.* The cause of the injury in workers' compensation should not be confused with proximate causation in negligence. 1 LARSON & LARSON, *supra* note 4, § 6.60. In tort, proximate cause is based upon using foreseeability to place the fault for an incident on an individual. *Id.* Because workers' compensation is a no-fault system, the concept of fault has no place. *Id.* Causation in workers' compensation is a relation of the risk to the employee of an injury because of the employment. *Id.*

102. *McSpadden v. Big Ben Coal Co.*, 288 N.W.2d 181, 188 (Iowa 1980). "To occur in the course of employment, the injury must occur within the period of employment." *Id.*

103. See, e.g., *Harris v. Wilson Foods Corp.*, Nos. 688326, 808328, Iowa Indus. Comm'n 1, 2 (Dec. 22, 1988), reprinted in *Decisions of the Iowa Industrial Commissioner*, July 1988-June 1989. In *Harris*, the Commissioner presented the treatment notes of the worker's physician as evidence. *Id.*

104. See, e.g., *id.* at 2-3. The physician's notes recounted the worker's symptoms of pain and numbness in the worker's hands and wrists and described the tests done on the worker and their results. The notes stated that the physician performed electromyography as well as Tinell's and Phalen's tests on the worker. *Id.* The tests that a physician can use to diagnose carpal tunnel syndrome include "provocative tests, sensibility assessment, and evaluation of thenar muscle strength and bulk." 8 AM. JUR. PROOF OF FACTS 3D *Carpal Tunnel Syndrome* § 4 (1990). The Tinell's test is performed by gentle percussion on the wrist. *Id.* "The test is positive for nerve compression only if it produces downward radiating paresthesia in the median nerve innervated digits." *Id.* The Phalen's test involves having the worker place her wrists at maximum flexion and noting whether numbness or tingling is either produced or

testimony in a workers' compensation case.¹⁰⁵ "Expert opinion testimony, even if uncontroverted, may be accepted or rejected in whole or in part by the trier of fact."¹⁰⁶ A significant number of Iowa cases involving carpal tunnel injuries indicate that the worker has undergone carpal tunnel release surgery.¹⁰⁷

2. Proving Causation

As noted above, one of the elements the worker must prove in the carpal tunnel case is that the hazards of the workplace caused the carpal tunnel disease.¹⁰⁸ The expert is crucial in proving that the conditions of the workplace caused the worker's injury.¹⁰⁹ But, "[l]ay witness testimony is both relevant and material on the cause and extent of injury."¹¹⁰

exaggerated by the test. *Id.* "Electromyography (EMG) is the graphic record of the contraction of a muscle produced by electrical stimulation." *Id.*

105. *Lithcote v. Ballenger*, 471 N.W.2d 64, 66 (Iowa Ct. App. 1991).

106. *Id.*

107. See *Miller v. Lauridsen Foods, Inc.*, 525 N.W.2d 417 (Iowa 1994); *Stephenson v. Furnas Elec. Co.*, 522 N.W.2d 828 (Iowa 1994); *Klein v. Furnas Elec. Co.*, 384 N.W.2d 370 (Iowa 1986); *Weishaar v. Snap-On Tools Corp.*, 506 N.W.2d 786 (Iowa Ct. App. 1993); *McCoy v. Donaldson Co.*, Nos. 752670, 805200, Iowa Indus. Comm'n (Apr. 28, 1989); *Peters v. Lamoni Auto Assemblies, Inc.*, No. 809203, Iowa Indus. Comm'n (Mar. 31, 1989); *Streeter v. Iowa Meat Processing*, Nos. 730461, 809945, Iowa Indus. Comm'n (Mar. 31, 1989); *Harris v. Wilson Foods Corp.*, Nos. 688326, 808328, Iowa Indus. Comm'n (Dec. 28, 1988); *McBirnie v. Oscar Mayer Co.*, Nos. 692457, 700671, 756245, 756247, Iowa Indus. Comm'n (Oct. 26, 1988); *Willard v. John Deere Component Works*, No. 779876, Iowa Indus. Comm'n (Sept. 14, 1988); *Hodgins v. Floyd Valley Packing Co.*, No. 798203, Iowa Indus. Comm'n (Aug. 23, 1988).

Because of the importance of medical evidence in the carpal tunnel workers' compensation case, it is important at this point to indicate a procedural caveat. A practitioner wishing to use medical records and reports in a workers' compensation case needs to serve those documents on the opposing party within twenty days of filing an answer, or if the party does not have the documents at that time, ten days after receiving the documents. IOWA ADMIN. CODE r. 3-4.18 (1994). If the party does not comply with the rule, the Commissioner can either dismiss the case or disallow the use of the evidence as a sanction. IOWA INDUS. CODE r. 343-4.36(86) (1994).

108. See *supra* text accompanying note 101.

109. *Dunlavey v. Economy Fire & Cas. Co.*, 526 N.W.2d 845, 854 (Iowa 1995). "Whether an injury has a direct causal connection with the employment or arose independently thereof is essentially within the domain of expert testimony." *Id.* at 853.

110. *Miller v. Lauridsen Foods, Inc.*, 525 N.W.2d at 421 (citing *Giere v. Aase Haugen Homes, Inc.*, 146 N.W.2d 911, 915-16 (Iowa 1966)). *Miller* was a workers' compensation carpal tunnel case in which the deputy commissioner excluded lay witness testimony as a discovery sanction. *Id.* at 419. Because of the importance of the lay witness testimony in showing the cause and extent of *Miller's* injuries, the Iowa Supreme Court held that the exclusion of the testimony was not harmless error. *Id.* at 421. The commissioner had stated that "the greater weight of the medical evidence" show[ed] no objective findings to indicate a work-related injury . . . [and argued for that reason,] any testimony from nonmedical witnesses . . . [was] irrelevant and immaterial." *Id.* (quoting the Industrial Commissioner's report). The court found that lay witness testimony was "relevant and material" as "[e]xpert medical

The claimant in a workers' compensation case has the burden of proving proximate cause.¹¹¹ "A cause is proximate if it is a substantial factor in bringing about a result. . . . It only needs to be one cause, it does not have to be the only cause."¹¹² The injured worker can use epidemiologic evidence to show causation to the workplace.¹¹³ Generally, epidemiologic evidence is cited infrequently in appellate opinions addressing the sufficiency of evidence of workplace causation in a carpal tunnel case.¹¹⁴ *Hayes v. Hudson Foods*¹¹⁵ used the lack of carpal tunnel disease in employees with similar duties to discount workplace causation.¹¹⁶ The court in *Hayes* opined that the evidence of lack of carpal tunnel syndrome in other employees with similar duties was relevant and noted that "the trend is towards the admissibility of proof of the absence of other accidents to show . . . the lack of a causal connection between the injury and the defect or condition alleged."¹¹⁷

testimony may be 'buttressed by supportive lay testimony.'" *Id.* (quoting *McKeever Custom Cabinets v. Smith*, 379 N.W.2d 368, 374 (Iowa 1980)).

111. *Id.* at 420.

112. *Blacksmith v. All-American, Inc.*, 290 N.W.2d 348, 354 (Iowa 1980) (citations omitted).

113. 8 AM. JUR. PROOF OF FACTS 3D *Carpal Tunnel Syndrome* § 8 (1990).

Under the epidemiologic approach, evidence that there is a causal connection between carpal tunnel syndrome and a given factor (such as repetitive motion) includes the following: 1. The factor was present prior to the onset of the syndrome (temporal relationship). 2. The association of the factor with the syndrome is close. 3. The frequency of the syndrome in a population varies with the frequency of the exposure to the factor. 4. The association of the factor with the syndrome cannot be explained by intervening factors. 5. The association of the factor with the syndrome is acceptable based on principles of biology (biological plausibility). 6. The association of the factor with the syndrome has been identified by other investigators. . . . While an epidemiological approach to causation can be useful, plaintiff's counsel must be aware of the potential for confusion between the legal burden of proof (preponderance of the evidence) and scientific proof (statistical probability with certain confidence levels).

Id.

114. See *Peoria County Belwood Nursing Home v. Industrial Comm'n*, 505 N.E.2d 1026, 1028 (Ill. 1987); *Noble v. Lamoni Prods.*, 512 N.W.2d 290, 291 (Iowa 1994); *Schlup v. Auburn Needleworks, Inc.*, 479 N.W.2d 440, 447 (Neb. 1992); *Gencorp Polymer Prods. v. Landers*, 820 S.W.2d 475, 477 (Ark. Ct. App. 1991); *Harris v. Wilson Foods Corp.*, Nos. 688326, 808328, Iowa Indus. Comm'n 1, 2 (Dec. 22, 1988), *reprinted in* *Decisions of the Iowa Industrial Commissioner*, July 1988-June 1989.

115. *Hayes v. Hudson Foods*, 818 S.W.2d 296 (Mo. Ct. App. 1991).

116. *Id.* at 300. In *Hayes*, one of the issues in the case was whether the workers' compensation commissioner erred by admitting evidence of the absence of carpal tunnel disease in other employees. *Id.* at 298. A factual issue existed as to whether the employee's job, which entailed picking up dead chickens for two to four hours a day, involved the degree of repetitive wrist motion that could cause carpal tunnel syndrome. *Id.* at 300.

117. *Id.* at 301.

Recitation of mechanical evidence¹¹⁸ is common in these cases.¹¹⁹ Liti-gants use mechanical factors as evidence in carpal tunnel cases because of the link between the mechanical factors and carpal tunnel disease.¹²⁰ In fact, if an expert states the injured employee's condition is work related but is unaware of the mechanical aspects of the employee's job, the employee could lose the causation issue.¹²¹

Defendants in these cases have also used mechanical factors in order to show that the risk of carpal tunnel syndrome was due to a factor not related to the employee's job and therefore not compensable.¹²² In proving an occu-

118. Mechanical factors deal with the movement and positions of the hands and wrist. 8 AM. JUR. PROOF OF FACTS 3D *Carpal Tunnel Syndrome* § 8 (1990).

The movements and positions of the upper extremity result from complex static-dynamic equilibrium among gravity and inertial forces of the body parts, forces of muscle contraction, forces of viscous and elastic tissue (connecting tissue supplied with elastic fibers), and external forces. Although the forces and frequencies of exertion that bone, muscles, and tendons can tolerate without loss of function or excessive discomfort are not known, there can be little question that limitations exist. Exposure to forces and frequencies of exertion in excess of those limits can be expected to produce loss of function, excessive discomfort, or even degenerative tissue changes. This has best been demonstrated for the tendons and nerves in the wrist.

Id.

119. See, e.g., *Noble v. Lamoni Prods.*, 512 N.W.2d at 291 ("Her duties entailed holding a collection of wires known as a 'tail' with one hand, and with the other hand flipping a roll of tape over and under the wires to create a continuous roll. The task required repeated flexion and extension of her wrists."); *Schlup v. Auburn Needleworks, Inc.*, 479 N.W.2d at 444 ("Schlup had to pull, tug, and push the denim through the sewing machine she used. She also had to lift and carry the bundles of material she sewed, which bundles sometimes weighed up to 20 or 30 pounds."); *Harris v. Wilson Foods Corp.*, Nos. 688326, 808328, at 259 ("Her job required gripping and pulling. Claimant performed other jobs for defendant employer all of which involved repetitive gripping and pulling.").

120. See, e.g., *Luttrell v. Industrial Comm'n*, 507 N.E.2d 533, 537-38 (Ill. App. Ct. 1987). On cross examination, an expert witness for the injured worker in this case explained his determination that the worker's carpal tunnel injury was work related:

The doctor testified that he believed "that the most attractive theory at the moment is that the carpal tunnel is what is called a closed space, that the tendons running through the carpal tunnel have a lining about them called a synovia which becomes inflamed achieving an increase in size for each tendon which occupies that space." . . . [I]t has been documented that there is an association between manual trauma, e.g., banging of the hands, wielding a hammer, twisting and turning, and carpal tunnel syndrome.

Id.

121. See *Blakely v. Saif Corp.*, 750 P.2d 528, 530 (Or. Ct. App. 1987). In *Blakely*, the court found that there was not sufficient evidence of causation because the employee's physician-witness did not have knowledge of the details of the employee's work. *Id.* The court stated that the persuasiveness of the expert's opinion was reduced because the expert did not explain how the employee's duties caused her condition. *Id.*

122. See *Kraft v. Flathead Valley Labor & Contractors*, 792 P.2d 1094, 1096 (Mont. 1990). In *Kraft*, the defense alleged that the worker's carpal tunnel syndrome was caused by his fly-fishing activities which involved the same wrist motion as his job activities. *Id.*; see also

pational injury, claimants need not show that they were exposed to the hazard to a greater degree than the general public.¹²³ To claim an occupational disease, however, claimants must show that they were exposed to the hazard causing the disease to a greater extent than the general public.¹²⁴ Even though the statutory elements of occupational injury do not require the claimant to prove a hazard greater than what the general public is exposed to, the claimant may be required to put on evidence that the hazard is more prevalent in his occupation because the employer could present evidence showing the risk of carpal tunnel syndrome was not work related.¹²⁵

In addition to offering non-work-related mechanical factors which would make the risk of carpal tunnel syndrome personal to the claimant, defendants in a carpal tunnel workers' compensation action may also offer other causes of carpal tunnel disease. In *Liberty Northwest Insurance Corp. v. Spurgeon*,¹²⁶ the court found that it was error for the trier of fact to disregard "idiopathic factors" such as the claimant's age, gender, and borderline diabetes in evaluating the cause of the claimant's carpal tunnel syndrome.¹²⁷ The court stated that if "a claimant develops a disease in major part because of factors personal to her that are independent of any activities or exposures either on or off the job, the claim is not compensable, even if the work contributed to some degree to causing the disease."¹²⁸

3. Proving Temporal Relationship

As noted above, the workers' compensation statute requires the employee to prove the injury occurred during the time of employment.¹²⁹ In addition, there is a requirement "that a date of injury be established in order that it may be known which employer and carrier is at risk, whether notice of injury and claim are within the statutory period, whether statutory amendments were in effect, which wage basis applies, and other important considerations."¹³⁰

The Iowa Supreme Court first addressed the issue of when an injury occurs for the purposes of cumulative trauma cases in *McKeever Custom Cabinets v. Smith*.¹³¹ In *McKeever*, Kevin Smith sought workers' compensa-

Johnson v. Spectra Physics, 733 P.2d 1367, 1370 (Or. 1987). In *Johnson*, the defense presented evidence stating that the claimant's crocheting caused her carpal tunnel syndrome. *Id.* at 1369.

123. See IOWA CODE § 85.3(1) (1995). The statutory elements of occupational injury found in § 85.3(1) do not require the hazard that caused the injury to be more prevalent in the occupation than for the general public.

124. *Frit Indus. v. Langenwalter*, 443 N.W.2d 88, 90 (Iowa Ct. App. 1989). "A disease which follows from a hazard to which an employee has or would have been equally exposed outside of said occupation is not compensable as an occupational disease." *Id.*

125. *Id.* (citing *McSpadden v. Big Ben Coal Co.*, 288 N.W.2d 181, 190 (Iowa 1980)).

126. *Liberty Northwest Ins. Corp. v. Spurgeon*, 820 P.2d 851 (Or. Ct. App. 1991).

127. *Id.*

128. *Id.* at 852.

129. See *McSpadden v. Big Ben Coal Co.*, 288 N.W.2d 181, 188 (Iowa 1980).

130. *Thilges v. Snap-On Tools Corp.*, 528 N.W.2d 614, 618 (Iowa 1995).

131. *McKeever Custom Cabinets v. Smith*, 379 N.W.2d 368 (Iowa 1985).

tion benefits for "aseptic necrosis of the lunate bone—death of the large bone in the wrist from lack of blood supply."¹³² The court adopted a cumulative trauma theory of Smith's injury and then attempted to fix the time of Smith's injury for purpose of the statute of limitations.¹³³ The court quoted Larson stating "Larson cites two rules which have been applied in the gradual injury cases: the injury occurs when pain prevents the employee from continuing work, or when the pain occasions the need for medical attention."¹³⁴ The court stated that it "inclined towards the former" rule and found that a worker is injured in cumulative trauma cases when the worker's injury prevents the worker from continuing work.¹³⁵

The court answered the question of what happens when the worker is injured and is not prevented from working seven years later in *Oscar Mayer Foods Corp. v. Tasler*.¹³⁶ In *Tasler*, the claimant continued to work in spite of her injuries until the plant closed.¹³⁷ In answer to Oscar Mayer's argument that *McKeever* required a claimant to miss work before being eligible for benefits, the court limited *McKeever* to the question of determining the time of injury for the purpose of the statute of limitations.¹³⁸ The court then went on to state that for "the purposes of computing benefits it is appropriate to fix the date of injury as of the time at which the 'disability manifests itself.'"¹³⁹ The court then defined "manifestation" in objective terms as the time when "both the fact of injury and the causal relationship of the injury to the claimant's employment would have become plainly apparent to a reasonable person."¹⁴⁰ The court continued that it rejected an interpretation of "manifestation" for persons with repetitive trauma injuries which would fix the time of the injury as the time when the claimant first became aware of their injury because cumulative trauma claims by their nature can take years before they will develop into compensable workers' compensation claims.¹⁴¹ The court appeared to establish a weighing test for the Commissioner and vested much discretion in the Commissioner in determining the date of injury.¹⁴²

The Iowa Court of Appeals addressed the date of injury in cumulative trauma cases in *Venenga v. John Deere Component Works*.¹⁴³ The court in

132. *Id.* at 370.

133. *Id.* at 374.

134. *Id.* (citing 1B ARTHUR LARSON, THE LAW OF WORKMEN'S COMPENSATION § 39.50, at 7-350.28 (1985)).

135. *Id.* at 374.

136. *Oscar Mayer Foods Corp. v. Tasler*, 482 N.W.2d 824 (Iowa 1992).

137. *Id.* at 828.

138. *Id.* at 829.

139. *Id.*

140. *Id.* (quoting *Bellwood Nursing Home v. Industrial Comm'n*, 505 N.E.2d 1026, 1029 (Ill. 1987)).

141. *Id.*

142. *Id.* at 830. The Court stated that the "Commissioner is entitled to consider a multitude of factors such as absence from work because of inability to perform, the point at which medical care is received, or others, none of which is necessarily dispositive." *Id.*

143. *Venenga v. John Deere Component Works*, 498 N.W.2d 422 (Iowa Ct. App. 1993).

Venenga decided that more was needed for manifestation of injury in cumulative trauma cases than the "knowledge of the injury or the receipt of medical care."¹⁴⁴ The court required that the employee must realize his injury will have an impact upon his employment.¹⁴⁵ If *Venenga* is harmonized with *Tasler* and *McKeever*, it would appear to grant the Commissioner one more factor to consider when determining the time that the injury occurred.¹⁴⁶

The method of determining the date of injury in carpal tunnel cumulative trauma cases in Iowa seems to be unclear.¹⁴⁷ First, *Tasler* seems to leave different methods for determining the time of the cumulative injury depending on which question the court is trying to answer. Arguably, the court's language saves the essential holding of *McKeever*.¹⁴⁸ This would mean that the statute of limitations on cumulative trauma cases in which the claimant had never left work because of the injury would never start to run.¹⁴⁹ This result would frustrate the legislature's intent for enacting a statute of limitations in the workers' compensation statute—employers should have some time when they know that claims will be time barred.

Next, *Tasler* seems to place the responsibility for the determination of when an injury "manifests itself," for the purposes of determining benefits, into the hands of the Commissioner who is to use a weighing test to make the determination.¹⁵⁰ This test provides the Commissioner with the flexibility that the Commissioner needs in the varied fact situations which arise in cumulative trauma cases¹⁵¹ but does not provide concrete standards for both claimants and employers to use to predict when they need to protect their rights.

Hopefully, the Iowa Supreme Court will continue with a policy which vests some discretion with the Commissioner in the future. A policy determination by the court to do so would be in line with its determination that it

144. *Id.* at 425.

145. *Id.*

146. See *Postell v. Davis Transport Inc.*, No. 1002267, Iowa Indus. Comm'n (Nov. 7, 1995) (using *McKeever*—date when claimant can no longer work, *Tasler*—fact of injury and causal connection would have been apparent to a reasonable person, and *Venenga*—claimant knew the injury impacted his employment, in concert to determine that the date that the claimant's doctor removed him from work was the date of injury).

147. See Brief for Appellee at 29, *George A. Hormel & Co. v. Jordan*, No. 96-603 (Iowa filed Sept. 30, 1996).

148. See *supra*, text accompanying note 9. The Commissioner treats *McKeever* as determinative in statute of limitations cases. See *Chia v. Pirelli-Armstrong Rubber Co.*, No. 1015200 Iowa Indus. Comm'n (Feb. 29, 1996) ("For time limitation purposes, the compensable injury is held to occur when because of pain or physical disability, the claimant can no longer work.").

149. See Brief for Appellant at 7, *George A. Hormel & Co. v. Jordan*, No. 96-603 (Iowa filed Sept. 30, 1996) (If *McKeever* were applied, the claimant would not yet have an injury for statute of limitations purposes even though the claimant had been diagnosed with an injury and received medical treatment for it.)

150. See text accompanying note 10.

151. *Chia v. Pirelli-Armstrong Rubber Co.*, No. 1015200 Iowa Indus. Comm'n (Feb. 29, 1996).

liberally construes the workers' compensation statute.¹⁵² The court continuing to vest discretion in the Commissioner would also allow the Commissioner to do justice in individual cases which could prevent harsh results due to the fact that the workers' compensation system is the exclusive remedy for the injured worker.¹⁵³

B. Compensation for the Carpal Tunnel Injury

An employee who receives a carpal tunnel injury arising out of and within the course of employment is entitled to medical benefits.¹⁵⁴ "The employer is required by Section 85.27 [of the Iowa Code] to furnish reasonable surgical, medical, dental, osteopathic, chiropractic, podiatric, physical rehabilitation, nursing, ambulance, hospital services and supplies and one set of permanent prosthetic devices."¹⁵⁵ The injured employee must prove that the medical expense is an "instrumentality of health care" in order to obtain reimbursement for the expense.¹⁵⁶

It is likely that the benefits awarded to an employee with carpal tunnel syndrome for permanent disability benefits will be based upon the schedule¹⁵⁷ unless the employee can prove she has an injury in conjunction with the carpal tunnel which involves injury to the body as a whole.¹⁵⁸ When a worker has a loss of a body part listed in Iowa Code section 85.34(2), the worker receives compensation based upon the section 85.34(2) schedule for the functional loss of a member.¹⁵⁹ The schedule sets the number of weeks the worker receives compensation for the functional loss of a scheduled member.¹⁶⁰ "If the functional loss to the member is not a total functional loss, the

152. *Oscar Mayer Foods v. Tasler*, 483 N.W.2d 824, 829 (Iowa 1992).

153. *See Hawkins v. Bleakely*, 243 U.S. 210, 213 (1917) (The workers' compensation system establishes a system of compensation for workers injured in the course of their employment in lieu of other liability.).

154. *Hedberg & Vonderhaar*, *supra* note 19, at 824; IOWA CODE § 85.27 (1995).

155. *Hedberg & Vonderhaar*, *supra* note 19, at 824.

156. *See Stephenson v. Furnas Elec. Co.*, 522 N.W.2d 828 (Iowa 1994). In *Stephenson*, the injured employee attempted to have the insurance company pay for a hot tub. *Id.* at 832. The court found that it was not error for the Commissioner to deny compensation for the hot tub stating: "A request for such an item, more often used as a luxury item than as an instrumentality of health care, is quite apt to be viewed with skepticism. . . . The insurer had no advance opportunity to contest the purchase, explore its real necessity, or inquire into comparative costs." *Id.*

157. The schedule is the listing of body parts found in IOWA CODE § 85.34(2) which provides the number of weeks of compensation allowed for the loss of a particular body part.

158. *See Mortimer v. Fruehauf Corp.*, 502 N.W.2d 12 (Iowa 1993). In *Mortimer*, the claimant received a scheduled injury when a work accident amputated a portion of one of his feet. *Id.* at 13. The claimant claimed that this amputation aggravated a pre-existing psychological problem. *Id.* The court held that a "psychological condition caused or aggravated by a scheduled injury [was] compensable as an unscheduled injury." *Id.* at 16.

159. *Hedberg & Vonderhaar*, *supra* note 19, at 827.

160. *Id.*

weekly payments are made for the number of weeks that the percentage of the functional loss bears to the total functional loss of such member."¹⁶¹

The main effect of placing carpal tunnel syndrome within the category of a scheduled injury is that the worker with carpal tunnel receives compensation based upon functional disability rather than industrial disability.¹⁶² Industrial disability "measures the extent . . . the injury impairs the employee's earning capacity."¹⁶³ Functional disability limits benefits by only considering "the impairment of the employee's bodily function."¹⁶⁴ Note that when an employee suffers an injury both to a scheduled member and to a part of the body not included in the schedule, the resulting injury is compensated on the basis of an unscheduled injury.¹⁶⁵

VI. CONCLUSION

Iowa's treatment of carpal tunnel syndrome as an occupational injury rather than an occupational disease sets the tone for the resolution of a number of issues. Iowa's treatment of carpal tunnel claims represents a continuation of the philosophy that was the impetus for workers' compensation when the system first developed. The decision provides some certainty to the employee by settling some issues such as the date of injury for both statute of limitations and limitations of actions purposes. By providing certainty in these areas, litigation and transaction costs are reduced. On the other hand, there seems to be a tradeoff in the decision much like the tradeoff that the workers' compensation system represents in comparison to the tort system. While the law in Iowa now makes the recovery of benefits more certain in the workers' compensation case, those damages are limited to compensation for the functional loss of a scheduled member.

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161. *Id.* Iowa law provides for benefits for 190 weeks for the loss of a hand. IOWA CODE § 85.34(2)(1) (1995). Compensation is set at an amount that is equal to 80% of the employee's average weekly spendable earnings, but not more than 184% of the statewide average weekly wage as determined by the Department of Employment Services. *Id.* § 85.34(2).

162. *See* *Miller v. Lauridsen Foods, Inc.*, 525 N.W.2d 417, 420 (Iowa 1994). "Scheduled disability is evaluated on a functional basis; unscheduled disability is determined industrially." *Id.*

163. *Id.* "[I]ndustrial disability measure[s] the loss of earning capacity rather than mere physical or mental impairment, the commissioner must consider the employee's functional impairment, age, education, work experience, and adaptability to retraining, to the extent any of these factors affect the employee's prospects for relocation in the job market." *Collins v. Department of Human Services*, 529 N.W.2d 627, 629 (Iowa Ct. App. 1995).

164. *Id.*

165. *Id.*