

Issued by THE LABOR AND INDUSTRIAL RELATIONS COMMISSION

TEMPORARY AWARD ALLOWING COMPENSATION  
(Affirming Award and Decision of Administrative Law Judge)

Injury No.: 03-071977

Employee: Mary Canada  
Employer: Western Union Financial Services  
Insurer: Pacific Employers Insurance c/o Sedgwick Claims  
Additional Party: Treasurer of Missouri as Custodian  
of Second Injury Fund (left open)  
Date of Accident: July 30, 2003  
Place and County of Accident: St. Louis County, Missouri

The above-entitled workers' compensation case is submitted to the Labor and Industrial Relations Commission (Commission) for review as provided by section 287.480 RSMo. Having reviewed the evidence and considered the whole record, the Commission finds that the award of the administrative law judge is supported by competent and substantial evidence and was made in accordance with the Missouri Workers' Compensation Act. Pursuant to section 286.090 RSMo, the Commission affirms the award and decision of the administrative law judge dated January 25, 2005. The award and decision of Administrative Law Judge John Howard Percy, as issued, is attached and incorporated by this reference.

The Commission finds that the administrative law judge correctly weighed and evaluated the lay and medical testimony in reaching his conclusions as to the issues presented. *Reese v. Gary & Roger Link, Inc.*, 5 S.W.3d 522 (Mo. App. E.D. 2002), *Sullivan v. Masters Jackson Paving Co.*, 35 S.W.3d 879 (Mo. App. S.D. 2001), *Landman v. Ice Cream Specialties, Inc.*, 107 S.W.3d 240 (Mo. banc 2003).

This award is only temporary or partial, is subject to further order and the proceedings are hereby continued and kept open until a final award can be made. All parties should be aware of the provisions of section 287.510 RSMo.

Given at Jefferson City, State of Missouri, this 24<sup>th</sup> day of August 2005.

LABOR AND INDUSTRIAL RELATIONS COMMISSION

\_\_\_\_\_  
William F. Ringer, Chairman

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Alice A. Bartlett, Member

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John J. Hickey, Member

Attest:

\_\_\_\_\_  
Secretary

**TEMPORARY OR PARTIAL AWARD**

Employee: Mary Canada Injury No. 03-071977  
Dependents: N/A Before the

**Division of Workers'**

Employer: Western Union Financial Services **Compensation**  
Department of Labor and Industrial  
Additional Party: Second Injury Fund (left open) Relations of Missouri  
Jefferson City, Missouri  
Insurer: Pacific Employers Insurance Company  
Hearing Date: August 23 and September 14, 2004 Checked by: JHP

**FINDINGS OF FACT AND RULINGS OF LAW**

1. Are any benefits awarded herein? Yes medical treatment
2. Was the injury or occupational disease compensable under Chapter 287? Yes
3. Was there an accident or incident of occupational disease under the Law? Yes
4. Date of accident or onset of occupational disease: July 30, 2003
5. State location where accident occurred or occupational disease contracted: St. Louis County, Missouri
6. Was above employee in employ of above employer at time of alleged accident or occupational disease? Yes
7. Did employer receive proper notice? Yes
8. Did accident or occupational disease arise out of and in the course of the employment? Yes
9. Was claim for compensation filed within time required by Law? Yes
10. Was employer insured by above insurer? Yes
11. Describe work employee was doing and how accident happened or occupational disease contracted:  
20 years of typing
12. Did accident or occupational disease cause death? No Date of death? N/A
13. Parts of body injured by accident or occupational disease: both wrists
14. Compensation paid to-date for temporary disability: None
15. Value necessary medical aid paid to date by employer/insurer? \$945.85
16. Value necessary medical aid not furnished by employer/insurer? None claimed

Employee: Mary Canada Injury No. 03-071977

17. Employee's average weekly wages: \$877.72
18. Weekly compensation rate: \$585.15 TTD/ \$347.05 PPD
19. Method wages computation: Stipulation

**COMPENSATION PAYABLE**

20. Amount of compensation payable:

Unpaid medical expenses: None

weeks of temporary total disability (or temporary partial disability) None

TOTAL:

Each of said payments to begin and be subject to modification and review as provided by law. This award is only temporary or partial, is subject to further order, and the proceedings are hereby continued and the case kept open until a final award can be made.

IF THIS AWARD IS NOT COMPLIED WITH, THE AMOUNT AWARDED HEREIN MAY BE DOUBLED IN THE FINAL AWARD, IF SUCH FINAL AWARD IS IN ACCORDANCE WITH THIS TEMPORARY AWARD.

The compensation awarded to the claimant shall be subject to a lien in the amount of N/A of all payments hereunder in favor of the following attorney for necessary legal services rendered to the claimant:

## FINDINGS OF FACT and RULINGS OF LAW:

Employee:	Mary Canada	Injury No. 03-071977
Dependents:	N/A	Before the
Employer:	Western Union Financial Services	<b>Division of Workers'</b>
Additional Party:	Second Injury Fund (left open)	<b>Compensation</b>
Insurer:	Pacific Employers Insurance Company	Department of Labor and Industrial
		Relations of Missouri
		Jefferson City, Missouri
		Checked by: JHP

A hearing in this proceeding was held on August 23 and September 14, 2004 pursuant to Employee's request for a temporary award as provided in Section 287.510 Mo. Rev. Stat. (2000). The hearing date was advanced on the docket pursuant to Employee's request made under the provisions of Section 287.450. Employee requested medical treatment as provided in Section 287.140. The record was left open for an additional exhibit which was admitted into evidence on October 1, 2004. Both parties submitted proposed awards on October 31, 2004.

### STIPULATIONS

The parties stipulated that on or about July 30, 2003:

1. the employer and employee were operating under and subject to the provisions of the Missouri Workers'

- Compensation Law;
2. the employer's liability was insured by Pacific Employers Insurance Company;
3. the employee's average weekly wage was \$877.72; and
4. the rate of compensation for temporary total disability was \$585.15 and the rate of compensation for permanent partial disability was \$347.05.

The parties further stipulated that:

1. the employer had notice of the alleged repetitive trauma injury/occupational disease and a claim for compensation was filed within the time prescribed by law;
2. no compensation has been paid; and
3. employer has paid medical expenses in the amount of \$945.85.

### **ISSUES**

The issues to be resolved in this proceeding are:

1. whether claimant was exposed to an occupational disease due to repetitive trauma which arose out of and in the course of claimant's employment;
2. if the employee was exposed to an occupational disease by her work-related activities, whether she sustained an injury as a result of the occupational disease exposure; and
3. if the employee sustained a compensable injury, whether she should be provided with any medical treatment for the injury.

### **OCCUPATIONAL DISEASE**

Claimant alleges that she developed bilateral carpal tunnel syndrome as a result of years of hand intensive work activity as a Customer Service Representative and as a Customer Service Representative Instructor for Western Union Financial Services, Employer herein.

An employee's claim for compensation due to an occupational disease is to be determined under Section 287.067 Mo. Rev. Stat. (2000). It defines occupational disease as:

an identifiable disease arising with or without human fault out of and in the course of the employment. Ordinary diseases of life to which the general public is exposed outside of the employment shall not be compensable, except where the diseases follow as an incident of an occupational disease as defined in this section. The disease need not to 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 flowed from that source as a rational consequence. (1993 additions underlined)

Section 287.067.2, which was added in 1993, provides that an occupational disease is compensable "if it is clearly work related and meets the requirements of an injury which is compensable as provided in subsections 2 and 3 of section 287.020. An occupational disease is not compensable merely because work was a triggering or precipitating factor." Subsection 2 of section 287.020 provides that an injury is clearly work related "if work was a substantial factor in the cause of the resulting medical condition or disability."<sup>[1]</sup>

Subsection 3(1) of section 287.020 provides that an injury must arise out of and in the course of the employment and be incidental to and not independent of the employment relationship and that "ordinary, gradual deterioration or progressive degeneration of the body caused by aging" is not compensable unless it "follows as an incident of employment."

Subsection 3(2) of section 287.020 provides that an injury arises out of and in the course of the employment "only if (a) It is reasonably apparent, upon consideration of all the circumstances, that the employment is a substantial factor in causing the injury; and (b) It can be seen to have followed as a natural incident of the work; and (c) It can be fairly traced to the employment as a proximate cause; and (d) It does not come from a hazard or risk unrelated to the employment to which workers would have been equally exposed outside of and unrelated to the employment in normal nonemployment life[.]"

Much of new subsection 3(2) of section 287.020 was contained in the prior definition of an occupational disease set forth in Section 287.067. Section 287.020.3(2)(b), (c), and (d) were part of the former occupational disease statute. Section 287.020.3(2)(a) is a revision of the prior requirement of a direct causal connection between the conditions under which the work was performed and the occupational disease. Direct causal connection is now defined as "a substantial factor in causing the injury." The Supreme Court held in Kasl v. Bristol Care, Inc., 984 S.W.2d 501 (Mo. 1999) that the foregoing language

overruled the holdings in Wynn v. Navajo Freight Lines, Inc., 654 S.W.2d 87 (Mo. 1983), Bone v. Daniel Hamm Drayage Company, 449 S.W.2d 169 (Mo. 1970), and many other cases which had allowed an injury to be compensable so long as it was "triggered or precipitated" by work. A substantial factor does not have to be the primary or most significant causative factor. Bloss v. Plastic Enterprises, 32 S.W.3d 666, 671 (Mo. App. 2000); Cahall v. Cahall, 963 S.W.2d 368, 372 (Mo. App. 1998). The additional language in section 287.020.3(1) concerning deterioration or degeneration of the body due to aging probably does not overturn any prior court decisions.

Since the 1993 amendments pertaining to occupational diseases have largely readopted the prior statute, caselaw interpreting the prior statute is of some significance. In repetitive motion cases,<sup>[2]</sup> as practically all movements of the human body done during the course of employment are also replicated in nonworking environments and as most occupationally induced diseases also sometimes occur in the public at large, the courts have focused on a particular risk or hazard to which an employee's exposure is greater or different than the public at large. Collins v. Neevel Luggage Manufacturing Co., 481 S.W.2d 548, 552-54 (Mo. App. 1972); Prater v. Thorngate, Ltd., 761 S.W.2d 226, 230 (Mo. App. 1988); Hayes v. Hudson Foods, Inc., 818 S.W.2d 296, 299-300 (Mo. App. 1991). Claimant must present substantial and competent evidence that he or she has contracted an occupationally induced disease rather than an ordinary disease of life. The Courts have stated that the determinative inquiry involves two considerations: "(1) whether there was an exposure to the disease which was greater than or different from that which affects the public generally, and (2) whether there was a recognizable link between the disease and some distinctive feature of the employee's job which is common to all jobs of that sort". Id. at 300; Dawson v. Associated Elec., 885 S.W.2d 712, 716 (Mo. App. 1994); Prater at 230; Jackson v. Risby Pallet and Lumber Co., 736 S.W.2d 575, 578 (Mo. App. 1987); Polavarapu v. General Motors Corp., 897 S.W.2d 63, 65 (Mo. App. 1995); Sellers v. Trans World Airlines, Inc., 752 S.W.2d 413, 415 (Mo. App. 1988).

Claimant must also establish, generally through expert testimony, the probability that the claimed occupational disease was caused by conditions in the work place. Dawson at 716; Selby v. Trans World Airlines, Inc., 831 S.W.2d 221, 223 (Mo. App. 1992); Brundige v. Boehringer, 812 S.W.2d 200, 202 (Mo. App. 1991). Claimant must prove that work was "a substantial factor" in causing "the resulting medical condition or disability." Section 287.020.2. Moreover, "an occupational disease is not compensable merely because work was a triggering or precipitating factor." Section 287.067.2 Mo. Rev. Stat. (1994). The Supreme Court held in Kasl v. Bristol Care, Inc., 984 S.W.2d 501 (Mo. 1999) that the foregoing language overruled the holdings in Wynn v. Navajo Freight Lines, Inc., 654 S.W.2d 87 (Mo. 1983), Bone v. Daniel Hamm Drayage Company, 449 S.W.2d 169 (Mo. 1970), and many other cases which had allowed an injury to be compensable so long as it was "triggered or precipitated" by work. On the other hand, injuries which are triggered or precipitated by work may nevertheless be compensable if the work is found to be the "substantial factor" in causing the injury. Kasl, supra.

A single medical opinion will support a finding of compensability even where the causes of the disease are indeterminate. Dawson at 716; Sellers v. Trans World Airlines, Inc., 776 S.W.2d 502, 504 (Mo. App. 1989); Sheehan at 797. The opinion may be based on a doctor's written report alone. Prater v. Thorngate, Ltd., 761 S.W.2d 226, 230 (Mo. App. 1988). "A medical expert's opinion must be supported by facts and reasons proven by competent evidence that will give the opinion sufficient probative force to be substantial evidence." Silman v. Montgomery & Associates, 891 S.W.2d 173, 176 (Mo. App. 1995); Pippin v. St. Joe Minerals Corp., 799 S.W.2d 898, 903 (Mo. App. 1990). Where the opinions of medical experts are in conflict, the fact finding body determines whose opinion is the most credible. Hawkins v. Emerson Electric Co., 676 S.W.2d 872, 877 (Mo. App. 1984). Where there are conflicting medical opinions, the fact finder may reject all or part of one party's expert testimony which it does not consider credible and accept as true the contrary testimony given by the other litigant's expert. George v. Shop 'N Save Warehouse Foods, 855 S.W.2d 460 (Mo. App. 1993); Webber v. Chrysler Corp., 826 S.W.2d 51, 54 (Mo. App. 1992); Hutchinson v. Tri-State Motor Transit Co., 721 S.W.2d 158, 163 (Mo. App. 1986). An administrative law judge may not constitute himself or herself as an expert witness and substitute his or her personal opinion of medical causation of a complicated medical question for the uncontradicted testimony of a qualified medical expert. Wright v. Sports Associated, Inc., 887 S.W.2d 596 (Mo. 1994); Bruflat v. Mister Guy, Inc., 933 S.W.2d 829, 835 (Mo. App. 1996); Eubanks v. Poindexter Mechanical, 901 S.W.2d 246, 249-50 (Mo. App. 1995). However, even uncontradicted medical evidence may be disbelieved. Massey v. Missouri Butcher & Cafe Supply, 890 S.W.2d 761, 763 (Mo. App. 1995); Jones v. Jefferson City School Dist., 801 S.W.2d 486, 490 (Mo. App. 1990).

## **FINDINGS OF FACT**

Based on my observations of claimant's demeanor during her testimony, I find that she is a credible witness and that her testimony is generally credible. Based on the credible testimony of claimant and on the medical records, I make the following findings of fact.

### Descriptions of Work Activities

Mary Jane Canada, claimant herein, began working at Western Union Financial Services in 1982. She was initially employed as a Customer Service Representative where she was responsible for keyboarding information received over the telephone. She performed this job for approximately fourteen years, initially using a CRT machine before the work was transferred to a personal computer.

Eventually, Mrs. Canada was promoted to her current position as a Customer Service Representative Instructor. This job requires preparation and updating of instruction manuals, as well as teaching Customer Service Representatives the functions of their jobs. She works forty hours a week. Fifty percent of her time at work is spent on typing and preparation of manuals; the remaining fifty percent of her time is devoted to her teaching duties. She spends on average two weeks each month typing teaching manuals.

During the two weeks when she types manuals, she types from 6 to 7-1/2 hours per day. She types 50 to 55 words per minute. During this period she has typed approximately 18,000 words per day. During the two weeks when she teaches, Ms. Canada also performs for one to two hours per day of "interrupted typing" needed to complete agendas, reports and attendance sheets. She types 35 words per minute while typing these documents for a total of about 3000 words per day. While actually teaching a class Ms. Canada performs minimal typing

Her job as an instructor has required more typing than the position of Customer Service Representative. The typing performed by a Customer Service Representative is broken up because of the telephone calls and the waiting involved in obtaining information over the telephone.

Mrs. Canada initially began to note problems with her hands while serving as a Customer Service Representative. Specifically, she noted that her hands fell asleep; she also experienced weakness and pain in her hands. Over the years, the problem worsened to the point that now she experiences constant pain and her hands fall asleep regularly. Her symptoms worsen with any type of gripping activities.

#### Prior Employment

Prior to working at Western Union Financial Services, Ms. Canada worked for Danny Muechler as his secretary. Her duties were to answer telephones and make appointments. She did not have any physical problems or sustain any injuries during that employment.

Ms. Canada was next employed as a receptionist at Saxson Business Products. Again, she did not sustain any injuries or experience any physical problems performing that job.

Ms. Canada spends about two to three hours per week horseback riding and gardening.

Mrs. Canada is currently taking medication for high blood pressure and ulcerative colitis. She has no difficulties as a result of these conditions.

#### Medical Treatment

Mrs. Canada initially sought treatment from Dr. Dwayne Helton, her primary care physician on March 14, 2003. She told him her hands were falling asleep and that she was having difficulty gripping objects, in particular the steering wheel of her automobile. Her symptoms began years earlier, but worsened during the preceding several months. He recommended the wearing of hand splints. Dr. Helton reexamined Ms. Canada on July 31, 2003. She reported that her hand pain had worsened. He recommended that she be examined by a hand surgeon. (Claimant's Exhibit B)

While Mrs. Canada had experienced similar problems in the past, those problems had previously responded well to treatment with wrist braces and no follow-up care was necessary. Because of the possibility of missed time from work and the costs associated with possible surgery, Mrs. Canada reported the injury to her supervisor on July 30, 2003. After a written incident report was filled out by her supervisor, Employer sent Ms. Canada to Concentra Medical Centers.

Dr. Sheikh M. Zahid examined claimant on August 1, 2003. She told him that had been experiencing paresthesias in her hands with nocturnal symptoms for the prior several years. She had been using splints for the prior 2 to 3 months. Neurometrix nerve studies were consistent with mild bilateral median neuropathy at the wrist. He diagnosed claimant with carpal tunnel syndrome and recommended that she perform home exercises and continue to wear the splints. Dr. Rudolph Catanzaro examined claimant on September 4, 2003. He noted that claimant had not experienced any improvement with conservative therapy. He recommended that she be examined by a hand surgeon. (Claimant's Exhibit D)

Dr. R. Evan Crandall, a plastic surgeon, examined Ms. Canada on September 10, 2003. She told Dr. Crandall that she had been having problems with her hands for 10 years. She was experiencing aching, decreased grip strength, numbness and tingling in her thumb, index, and long fingers. She told him that her symptoms were waking her at night. She stated that she tried splints during the prior 4 to 5 months and was taking Aleve. On examination she positive Phalen's tests and negative Tinel's signs. Dr. Crandall reviewed the Concentra records and recommended that she undergo a nerve conduction study by a neurologist. (Employer/Insurer's Exhibit 1, depo ex 2)

Claimant sought medical treatment from Dr. Fallon H. Maylack, an orthopedic surgeon, who examined her on February 9, 2004. She told him that she had been a full-time typist for 14 years, that she developed carpal tunnel syndrome during this period and was treated with splints and that since 1998 she has worked as an instructor with more limited typing duties. She told him that her carpal tunnel syndrome had worsened over time. On examination Dr. Maylack noted that she had positive Phalen's test and positive Tinel's signs in both wrists. He recommended surgery.

On May 25, 2004 Dr. Daniel Phillips performed a nerve conduction study and an EMG on claimant's upper extremities. The findings were consistent with moderate, right worse than left, sensory motor carpal tunnel syndrome. He indicated that the study was not impressive for cervical radiculopathy or generalized upper extremity peripheral neuropathy. He indicated that his findings were more severe than the prior Neurometrix study. (Claimant's Exhibit C)

Dr. Crandall reviewed the nerve conduction study performed by Dr. Phillips. He recommended surgery. (Employer/Insurer's Exhibit 2, depo ex 3)

### Ergonomic Evidence

Ms. Jennifer Christy, an industrial engineer, testified at the hearing on behalf of the employer/insurer. She testified that she has been a self-employed consultant since the beginning of 2004, performing job task analyses, as well as making recommendations regarding the necessary modifications for improving safety and efficiency. Prior to becoming self employed, Ms. Christy worked as an ergonomic specialist at Barnes Jewish Corporate Health Services between 2002 and 2004, performing essentially the same functions. Her other experience, subsequent to graduating with a Bachelor of Science in Industrial and Management Systems Engineering from Western Virginia University in 2001, was working as a process reliability engineer at CCL Custom Manufacturing. Her responsibilities at that job involved analyzing and monitoring production performance and identifying methods to reduce material losses or improve output.

Ms. Christy explained that Barnes Jewish Corporate Health Services received a telephone call from Western Union Financial Services requesting an ergonomic analysis of two positions. Eileen Gibson, Director of Human Resources at Employer, advised to talk to two people, one with a quick collect/customer service specialty and one with a credit card validation specialty.

Ms. Christy spent approximately three to four hours at Western Union Financial Services and subsequently prepared two reports.

Ms Christy testified that she collected the data for her reports on Friday, March 12, 2004. The two individuals she studied were both Customer Service Representatives, and the data they provided was not independently verified. In addition to using the information provided by these individuals, Ms. Christy counted the number of the keystrokes performed by each individual. Using this information she calculated an average keystroke exposure rate of 4,405 per hour and a maximum keystroke exposure rate of 5,272 per hour. (Employer/Insurer's Exhibit 4) Assuming typing for 7-1/2 hours yields total keystrokes of 33,038 and 39,540 per day.

Ms. Christy next compared these findings with three purportedly ergonomic accepted standards. She had no independent knowledge of how these standards were determined and offered the reference materials she reviewed as evidence. Using the criteria established by the Threshold Limit Value (TLV) for Hand Activity Level, Asa Kilbom and American National Standards Institute, she concluded that a Customer Service Representative would not have a sufficient exposure rate to suggest a potential for development of musculoskeletal disorders. (Employer/Insurer's Exhibit 5)

On cross-examination, Ms. Christy agreed that she could not say to any degree of professional certainty that the job Ms. Canada performed was safe. She testified that she had not spoken to Ms. Canada in the course of preparing her reports. She further stated that she did not speak to a Customer Service Representative instructor at any point. She agreed that an instructor job, which could require typing up to eight hours a day without interruptions from phone calls, could be significantly different from the job of a Customer Service Representative or a Customer Service Representative Supervisor.

## Medical Opinions

Dr. Fallon Maylack testified by deposition on behalf of the employee on July 6, 2004. Dr. Maylack is a board certified orthopedic surgeon.

Dr. Maylack noted a history of typing leading up to and beyond Ms. Canada becoming a Customer Service Representative Instructor with a progressive worsening of her bilateral carpal tunnel syndrome.

Dr. Maylack concluded that Ms. Canada developed bilateral carpal tunnel syndrome and that her typing was a substantial factor in causing these conditions. He further concluded that having failed nonsurgical management, she was in need of surgery to correct her condition.

Dr. Maylack agreed on cross-examination that he did not watch a tape or visit the site of the employee's work. He further stated that he reviewed the ergonomic keystroke analysis for the Customer Service Representative and for the Customer Service Representative Supervisor prior to his deposition, but that this information was not available to him before he prepared his report. After reviewing the report, Dr. Maylack opined that he would not change his conclusions regarding this case.

Dr. Maylack testified that he disagreed with Dr. Crandall's opinions regarding carpal tunnel syndrome. Dr. Maylack explained that determining causation in carpal tunnel cases requires more than examining keystrokes per minute. Instead, a determination that includes consideration of wrist positions and equipment used is essential. Dr. Maylack was unclear as to the validity of the standards relied on in the ergonomic analysis, and again stated his belief that carpal tunnel syndrome cannot be analyzed by simply using keystroke analysis. He explained that while the exact amount of repetition is relevant, the science surrounding carpal tunnel syndrome is still comparatively early, and hard and fast thresholds applicable to every person are not appropriate at this time. He reiterated his conclusion that Mrs. Canada did not have other risk factors for carpal tunnel syndrome and that her employment with Western Union Financial Services was a substantial factor in the cause of her carpal tunnel syndrome.

Dr. Evan Crandall testified by deposition on behalf of the employer on April 21, 2004 and August 18, 2004. He is a board certified plastic surgeon.

Dr. Crandall testified that it was his understanding that Mrs. Canada had worked as an instructor over the last six years and would occasionally prepare some documents from manuals.

At the time of his April 21, 2004 deposition, Dr. Crandall did not believe that the physical activity of an instructor was sufficient to be a substantial factor in causing carpal tunnel syndrome. He indicated that her previous job responsibilities as a Customer Service Representative might be a risk factor, but he would require an ergonomic analysis to determine if the volume of typing was sufficient.

On cross-examination, Dr. Crandall testified that the likelihood of an instructor performing significant levels of typing was one in a million. It was his understanding that Ms. Canada was not performing any typing in her current job. In fact he believed that generally Ms. Canada spends forty hours a week doing strictly instructional work and no typing or repetitive activities other than some occasional work on manuals.

He further agreed that if Ms. Canada testified at a hearing that she prepared manuals for approximately two weeks out of each month and that this required typing approximately eight hours of typing a day, his opinions could change. He stated that if a person typed eight hours a day, two weeks per month and the other two weeks did not do any typing it would almost reach the criteria OSHA would consider as hand intensive for typists - four hours of continuous typing per day. He stated that he had personally not seen a person typing manuals reach that level but would need a keystroke analysis or a count of the keystrokes.

Dr. Crandall was provided with a recorded statement given by employee to an insurance adjuster and with a description of Ms. Canada's job duties prepared by an unknown person. Based on all of this information, he reiterated that he did not feel that her work was a substantial factor in causing her carpal tunnel syndrome.

Prior to his second deposition, Dr. Crandall was provided with Ms. Christy's ergonomics studies as well as the nerve conduction studies performed by Dr. Phillips. Relying on the ergonomic studies, Dr. Crandall testified that 2,600 keystrokes per hour is an extremely low rate of typing and would have no physical impact on muscles or tendons and would not be able to cause a disease. He stated that 60,000 keystrokes in a day or approximately thirty words a minute for four hours a day

would be minimum criteria under OSHA standards that could result in carpal tunnel syndrome.

Dr. Crandall further testified that he believed that Ms. Canada's work as an Instructor for the last six years was less repetitive than the work which she performed as a Customer Service Representative or a Customer Service Representative supervisor during the prior 14 years. It was his belief that if her position as an Instructor were analyzed that she would have fewer keystrokes than those contained in the studies. Dr. Crandall stated that he had never conducted an ergonomic study and was unaware of who performed these particular studies. He believed the studies were performed by the Milliken Hand Institute and was unaware of whether the ergonomic expert spoke with Ms. Canada before reaching the reported conclusions. He agreed he had not spoken to Ms. Canada following the initial evaluation and therefore was unaware of any differences between her employment and the employment described in the ergonomic studies.

Dr. Crandall again stated that he did not believe her work was a substantial factor in causing her carpal tunnel syndrome.

### **Additional Findings**

While I have no reason to dispute the keystroke counts by Ms. Christy, I was not persuaded that the thresholds which she cited in Employer/Insurer's Exhibit 5 have been generally accepted by the medical community. Dr. Maylack pointed out that the science is young in this area.

Having reviewed all of the evidence, I find the opinions of Dr. Maylack more persuasive than the opinions of Dr. Crandall. Dr. Maylack took into account the fact that for many years employee typed without a foam pad in front of her keyboard and with her wrists in awkward positions due to equipment and chairs not being at the proper heights. He opined that carpal tunnel syndrome is more complicated than strictly keystroke counts. He stated that it involves chair position, table height, wrist protection, wrist support and other factors. He stated that the science is still very early with respect to counting keystrokes and that he did not believe that a hard and fast threshold should be applicable to all persons.

I previously found that during the last 6 years Ms. Canada has been typing 18,000 words per day (about 90,000 keystrokes) during two weeks of the month when she is preparing manuals and that she has been typing 3000 words per day (at least 15,000 keystrokes) during the remaining two weeks of the month when she is involved with teaching. Dr. Crandall stated that this amount of typing for half of the month may cause him to change his opinion on causation.

Based on the credible opinions of Dr. Maylack, I find that claimant's 14 years of typing while a Customer Service Representative and 6 years of typing while a Customer Service Representative Instructor for Western Union Financial Services were together a substantial factor in causing her bilateral carpal tunnel syndrome.

### **ADDITIONAL MEDICAL CARE**

Employee is requesting an award of medical care, including surgery, for her bilateral carpal tunnel syndrome.

Section 287.140 Mo. Rev. Stat. (2000) requires that the employer/insurer provide "such medical, surgical, chiropractic, and hospital treatment ... as may reasonably be required ... to cure and relieve [the employee] from the effects of the injury." The employee must prove beyond speculation and by competent and substantial evidence that his or her work-related injury is in need of treatment. Williams v. A.B. Chance Co., 676 S.W.2d 1 (Mo. App. 1984). Conclusive evidence is not required. It is sufficient if claimant shows by reasonable probability that he or she is in need of additional medical treatment. Downing v. Willamette Industries, Inc., 895 S.W.2d 650, 655 (Mo. App. 1995); Sifferman v. Sears, Roebuck and Co., 906 S.W.2d 823, 828 (Mo. App. 1995). "Probable means founded on reason and experience which inclines the mind to believe but leaves room to doubt." Tate v. Southwestern Bell Telephone Co., 715 S.W.2d 326, 329 (Mo. App. 1986); Sifferman at 828. Section 287.140.1 does not require that the medical evidence identify particular procedures or treatments to be performed or administered. Talley v. Runny Meade Estates, Ltd., 831 S.W.2d 692, 695 (Mo. App. 1992); Bradshaw v. Brown Shoe Co., 660 S.W.2d 390, 394 (Mo. App. 1983). The employer/insurer may be ordered to provide medical and hospital treatment to cure and relieve the employee from the effects of the injury even though some of such treatment may also give relief from pain caused by a preexisting condition. Hall v. Spot Martin, 304 S.W.2d 844, 854-55 (Mo. 1957).

### **Medical Opinions**

Both Drs. Maylack and Crandall recommended that claimant undergo bilateral carpal tunnel surgery. Dr. Crandall stated that an individual with carpal tunnel syndrome that rises to a level requiring surgery rarely experiences relief without surgical intervention.

**Additional Findings**

As both physician agree that claimant's bilateral carpal tunnel syndrome requires surgical treatment, Employer/Insurer are hereby ordered to provide Ms. Canada with such medical and surgical treatment as may be required to cure and relieve claimant of her work-related bilateral carpal tunnel syndrome.

Date: \_\_\_\_\_ Made by: \_\_\_\_\_

JOHN HOWARD PERCY

*Administrative Law Judge  
Division of Workers' Compensation*

A true copy: Attest:

\_\_\_\_\_  
Patricia "Pat" Secrest

*Director*

*Division of Workers' Compensation*

[1] Subsection 2 of Section 287.020 repeats the exclusion of injuries where work was merely a triggering or precipitating factor.

[2] The 1993 addition of section 287.067.7, which modifies the last exposure rule with respect to occupational diseases due to repetitive motion, could be construed as a legislative recognition that injuries caused by repetitive activities may be viewed as due to an occupational disease.