SOUTH DAKOTA DEPARTMENT OF LABOR & REGULATION
DIVISION OF LABOR AND MANAGEMENT
Pierre, South Dakota

VIVENCIA VOORHEES, **HF No. 162, 2011/12**

Claimant,

v. **DECISION**

RAVEN INDUSTRIES, INC.,

Employer,

and

DAKOTA TRUCK UNDERWRITERS,

Insurer.

This is a workers' compensation proceeding before the South Dakota Department of Labor, pursuant to SDCL 62-7-12 and ARSD 47:03:01. A. Russell Janklow and Jami J. Bishop, of Janklow Law Firm, Prof. L.L.C., represent Claimant Vivencia Voorhees (Claimant). Michael S. McKnight, of Boyce, Greenfield, Pashby & Welk, L.L.P., represents the Employer, Raven Industries Inc., and the Insurer, Dakota Truck Underwriters (Employer / Insurer). A Hearing in the above matter was held on February 13, 2013 in Huron, South Dakota. By stipulation and pursuant to the Prehearing Order, the sole issue to be presented is causation of injury. The parties submitted post-hearing briefs to the Department. All pleadings, affidavits, evidence, and arguments were taken into consideration by the Department.

ISSUES:

Is Claimant's employment with Employer a major contributing cause of Claimant's medical condition, bilateral carpal tunnel syndrome, for which surgery and medical care was required?

FACTS:

1. At the time of hearing, Claimant is a 58 year old female. She was born in the Philippines. She was diagnosed with diabetes mellitus in 1988.

2. Claimant graduated from high school in 1975 and worked as a midwife for the Philippine Department of Health until she moved to the United States in 1998.

3. Claimant worked in a nursing home in Huron for a few years before starting work as a seamstress.

4. Claimant did not have any pain or problems with her wrist and hands at this time.

5. Claimant started working for Aerostar in 2003, sewing parachutes. She was laid off from 2004 to 2005, but returned to working for Aerostar as a full-time seamstress.

6. In the years of 2007-2009, Claimant worked 10 hours per day, five or six days per week.

7. Claimant's main job consisted of sewing parachutes. She would machine sew sections of fabric together using a type of cloth tape. These sections would join to form a large parachute.

8. A video of the sewing process was taken by Employer and Insurer. Claimant inserted a large section of tape into the sewing machine. She then lined up the two pieces of fabric with the tape in between and guided the fabric through the machine.

9. Claimant's job consisted of fine finger and hand movements of slight pinching, and gripping. She also moved her hands and arms over the fabric, pushing the fabric through the machine.

10. The video shows that the sewing machine has a slight vibration when it is turned on and while Claimant is maneuvering or guiding the pieces of fabric to line up straight through the sewing feeder.

11. There were two different sewing lines in the process. One involved a short piece of tape and the other was long. Claimant's most recent job duties involved the long pieces of tape and the long seams.

12. The fabric pieces are not small pieces. The video shows Claimant pulling fabric pieces from her lap and onto the machine and table. These pieces are a number of yards long and wide and relatively light and thin.

13. In 2009, Claimant's supervisor trained Claimant as an inspector.

14. As an inspector, Claimant's job was to inspect each seam to see that it was properly sewn. Claimant would pinch the fabric seam and move her pinched fingers over the seam and pull the seam through her pinched fingers and hand.

15. Claimant demonstrated this process during her testimony on the stand. According to the witnesses, the wrist and hand movements were hard pinching, grasping, and hard pulling of the fabric.

16. The process of inspecting was also demonstrated by other witnesses.

17. Claimant was a credible witness.

18. Claimant's co-workers also presented credible testimony.

19. The co-workers also testified to the type of work that Claimant did. They confirmed Claimant's testimony regarding the movement of her hands and arms while performing her work tasks.

20. The co-workers testified that Claimant was a very hard worker. They noticed when Claimant had problems with her hands.

21. In 2009, about the time that Claimant started to work as an inspector, Claimant noticed that her hands would become numb. Claimant filed an incident report in April 2009 regarding her hands becoming numb.

22. On one occasion, Claimant's hands were so numb that she did not realize she had pricked her fingers and was bleeding. The bleeding had to be pointed out to Claimant by her co-worker.

23. Claimant met with Employer's local plant ergonomist who recommended that Claimant wear specific gloves for her wrist pain.

24. The gloves given to her by Employer were a type of fingerless compression gloves. The wrist part of the glove worked to compress the wrist and keep the hand and wrist in a specific position.

25. When Claimant wore the gloves, she did not experience much pain. When she took off the gloves to wash her hands or at the end of the shift, Claimant's hands would hurt more.

26. Also in April, 2009, Employer instructed Claimant on ergonomic stretches for her hands and wrists. She was instructed to use Aleve ™, a nonprescription pain reliever, and to use hot and cold packs on her wrists to relieve her pain.

27. Claimant's hand pain did not decrease over time but increased. Claimant's symptoms became worse. Claimant started dropping items and the strength of her grip decreased.

28. On November 3, 2011, Claimant filed an incident report with Employer and Insurer.

29. On November 4, 2011, Claimant sought treatment with board-certified physician, Dr. Carl Huff at the Huron Medical Center.

30. Dr. Huff diagnosed Claimant with carpal tunnel syndrome (CTS) and prescribed conservative treatment: wrist immobilizers, pain medication, and restricted her to light duty at work.

31. After Claimant called Dr. Huff, the restricted work duty order was changed back to regular duty. Claimant did not want to jeopardize her job or miss any work.

32. Claimant returned to Dr. Huff on November 17, 2011 as the symptoms had not dissipated and her condition had not improved.

33. Dr. Huff wrote in his patient notes, "[follow-up] bilateral carpal tunnel syndrome. She has classic presentation. Gradual onset over more than 6 [months] and [associated] [with] repetitious work. Her hands go dead at night. She has intermittent tingling through the day. She has noted weakness, tends to drop things, lacks dexterity. We have had her on NSAIDS and wrist immobilizers [with] no improvement. I did not order an EMG since her [symptoms] and [physical examination] are so classic. Anyway, 15% of patients [with] clinical CTS have a [normal] EMG. There is no question in this patient's case."

34. Dr. Huff recommended a bilateral carpal tunnel release.

35. A Risk Factor Analysis was performed on November 28, 2011 by Stan Kulzer, Occupational Therapist Registered and Certified Ergonomic Evaluation Specialist. He is employed by Insurer as a loss control and ergonomic specialist and performs this type of evaluation on a regular basis for Insurer. Raven Industries and Aerostar have been clients of Mr. Kulzer and RAS since 1990.

36. Mr. Kulzer's analysis was that Claimant's CTS was caused by non-occupational risk factors instead of occupational.

37. The non-occupational risk factors are that Claimant is a female of a certain age with diabetes.

38. Mr. Kulzer video recorded Claimant's work sewing the panels together. He did not video tape nor observe Claimant inspecting the parachutes. On the stand he described the inspecting process as "maximum pinch and a real hard pull."

39. After observing Claimant, he totaled the number of awkward or dangerous positions that Claimant put her hands and wrists into, while sewing. He input that number onto a scoring table. This scoring table then helps to calculate whether Claimant's work and wrist positions were a risk factor for her CTS. There were 12 awkward left wrist positions and one (1) awkward right wrist position in an 8.5 minute period.

40. Mr. Kulzer did not mention any vibration of the sewing machine in his report.

41. Mr. Kulzer's calculations in his final report regarding the number of awkward wrist and hand movements per minute were wrong. These numbers did not affect the final outcome of his report or his opinion.

42. On December 21, 2011, Employer and Insurer denied the preapproval for payment request made by Dr. Huff for a bilateral carpal tunnel release and EMG studies as they had not yet completed an investigation into Claimant's case.

43. On January 4, 2012, Employer and Insurer denied Claimant's request for coverage based upon the opinion of Dr. William Call, a board certified orthopaedic, fellowship-trained, tertiary sub-specialty hand and upper extremity surgeon. Dr. Call's opinions were provided to a reasonable degree of medical certainty.

44. The reasons given by Employer and Insurer for denying the coverage is that Claimant's condition "is idiopathic and developmental, which is the case in the majority of carpal tunnel syndrome in women of your age."

45. On December 21, 2011, Dr. William Call performed a records review of Claimant's case. According to his report, he looked at 15 pages of records and did not physically examine nor speak with Claimant.

46. Dr. Call reviewed the video of Claimant working, taken by Stan Kulzer. He also deferred to Mr. Kulzer's opinion in regards to risk factors at her job and Mr. Kulzer's opinion regarding Claimant's condition.

47. Dr. Call wrote, "In the past there was a popular speculation that work activities had something to do with carpal tunnel syndrome with respect to causation, prolongation, or contribution. There was never any hard science to back this up. Recently this has been definitely disproved."

48. Dr. Call bases his opinion upon a "scientific article" in the April 2008 Journal of Hand Surgery regarding the causation of CTS, entitled *The Quality and Strength of Evidence for Etiology: Example of Carpal Tunnel Syndrome*. "The purpose of the investigation was to evaluate the quality and strength of scientific evidence supporting an etiologic relationship between a disease and a proposed risk factor using a scoring system based on the Bradford Hill criteria for causal association."

49. The article and related study essentially studied how other scientists and professionals conducted studies regarding the causation of CTS.

50. Dr. Call believes the article concludes that work or repetitive activities are not causally related to the development of CTS. The article notes that diagnosing CTS based solely on subjective evidence is "pseudoscientific because it can not be verified."

51. The study does not give a probability or a percentage of those people with CTS that was caused or was not caused by work activities. During hearing, Dr. Huff pointed out this flaw when asked to give his opinion of the results of the study. The article talks about the different studies associated with CTS and the research techniques, but not whether the research results would have been different had other research techniques been used.

52. Dr. Huff went on to explain that the result of the above research paper is not a quantitative analysis of whether CTS is caused by work activities, only whether the prior research was valid.

53. It is Dr. Huff's opinion, with a reasonable degree of medical certainty, that Claimant's bilateral carpal tunnel syndrome is a work-related condition. He noted on Claimant's medical record on February 2, 2012, "this is a work related condition. The patient does have diabetes mellitus; this has, perhaps been a compromising factor but her work activity is the actual cause of the compressive neuropathy. She is perhaps more susceptible but, nevertheless, absent the work activity this would not have occurred."

54. Dr. Huff testified that CTS is generally found in diabetics who have neuropathies in their extremities. In this case, Claimant had no neuropathies in her legs or feet. Furthermore, he testified that if Claimant's CTS was caused by the diabetes, surgery would help her symptoms initially, but the CTS would more than likely return after surgery.

55. On May 18, 2012, Dr. Huff sent a note to "whom it may concern" stating, "The repetitive work activities of the patient are a major contributing factor to her carpal tunnel condition and her need for surgery."

56. Claimant continued to work during this time. Her pain continued and worsened as well.

57. On July 17, 2012, Dr. Huff performed a bilateral carpal tunnel release on Claimant. He noted and testified that he found the condition consistent with work activities. He testified that the median nerve was mechanically impinged as the appearance was flattened. In a letter to Claimant and her attorney, he wrote, "This latter fact is additional proof that the numbness and weakness of her hands was directly related to mechanical pressure on the nerve and aggravated by work activity."

58. Dr. Huff testified how diabetics develop CTS. He explained that the nerves may be impinged by the tendons and ligaments that are glycosylated or covered with glucose which in turn causes inflammation of the tendons and reduces the room available for the medial nerve in the carpal tunnel.

59. Glycosylation of the tendons and ligaments is not something that Dr. Huff can or could observe during surgery.

60. On a follow-up visit on August 6, 2012, Dr. Huff examined Claimant and noted: "[t]he patient is doing really well, she has good relief of her preoperative symptoms. This would tend to confirm that she had compressive neuropathy as opposed to diabetic neuropathy which makes it more likely work related."

61. On September 21, 2012, Employer and Insurer requested that Dr. Michael Genoff, a hand surgeon practicing with CNOS in North Sioux City, SD, perform an independent medical examination of Claimant. This examination took place prior to Claimant returning to full duty work for Employer.

62. Dr. Genoff gave his opinion, with a reasonable degree of medical certainty, that Claimant's work was not "the major contributing cause." His dictation went on to say, "With a history of diabetes mellitus as well as the patient's age and history of smoking, I believe these factors play a greater role in the cause of her carpal tunnel syndrome."

63. Dr. Genoff also deferred to Mr. Kulzer's opinion regarding risk factors at work.

64. After surgery, Claimant has returned to only sewing and not inspecting and her symptoms have not returned.

ANALYSIS & DECISION:

The South Dakota Supreme Court has made clear the burden of proof for Claimant to show causation in a workers compensation case. They wrote:

> To prevail on a workers compensation claim, a claimant must establish a causal connection between [her] injury and [her] employment. That is, the injury must have its origin in the hazard to which the employment exposed the employee while doing [her] work. *Rawls v. Coleman-Frizzell, Inc.*, 2002 SD 130, 20, 653 NW2d 247, 252 (citation omitted) (alteration in Rawls). Employees need not prove that their employment activity was the proximate, direct, or sole cause of their injury, only that the injury arose out of and in the course of employment. SDCL 62-1-1(7). And, an injury is not compensable unless the employment or employment related activities are a major contributing cause of the condition complained of[.] SDCL 62-1-1(7)(a); *Caldwell v. John Morrell & Co.*, 489 NW2d 353, 358 (SD 1992) (citations omitted).

Vollmer v. Wal-Mart Store, Inc., 2007 SD 25,¶13, 729 NW 2d 377, 382 (footnote omitted).

"The claimant must prove the essential facts by a preponderance of the evidence." *Caldwell v. John Morrell & Co*., 489 NW2d 353, 358 (SD 1992). Claimant must prove that her work-related injury, reported to Employer in April 2009 and again on November 3, 2011, continues to be the major contributing cause of her continued bilateral upper extremity overuse syndrome and carpal tunnel syndrome. Claimant must show by a preponderance of the evidence that her current condition arose out of and in the course of her employment with Employer.

The parties' case must be fully supported by the medical evidence and testimony. "The evidence necessary to support an award must not be speculative, but rather must 'be precise and well supported.'" *Horn v. Dakota Pork*, 2006 SD 5, ¶14, 709 NW2d 38, 42. "[T]he testimony of medical professionals is crucial in establishing that a claimant's injury is causally related "to the injury complained of 'because the field is one is which [laypersons] ordinarily are unqualified to express an opinion.' Indeed, SDCL 62-1-1(7) requires 'medical evidence.'" *Vollmer* at 382 (internal citations omitted).

Employer and Insurer had their loss control and ergonomic specialist, Stan Kulzer, OTR, inspect Claimant's work station. He observed her sewing, which was the main task she did just prior to

when she initially reported pain in her hands, in April 2009. He did not observe her inspecting the seams, the job for which she was trained on and was working just prior to her report in April 2009. Claimant continued to inspect seams in the years following the initial report and was doing so when she made her first report of injury on November 3, 2011.

Mr. Kulzer's report indicated that because Claimant was a diabetic female of a certain age, and that her sewing tasks did not indicate awkward or unsafe positioning of her hands, that Claimant's CTS was caused from non-occupational reasons. Claimant was being trained to inspect seams when she first started to have pain in her hands. Inspecting seams was not her full-time job, but it was the job she was doing when she felt pain. Furthermore, Claimant continued to inspect seams until the time she filed a first report of injury. At that time, Claimant was mostly inspecting seams and did little sewing. "Expert testimony is entitled to no more weight than the facts upon which it is predicated." *Darling v. West River Masonry, Inc.*, 2010 S.D. 4, ¶13, 777 N.W.2d 363, 367 (citing *Schneider v. S.D. Dep't of Transp.*, 2001 S.D. 70, ¶16, 628 N.W.2d 725, 730). The facts compiled by Mr. Kulzer, as not as accurate as they could have been. Therefore, the weight given to those facts is less than the more accurate facts given in live testimony.

The doctors for Employer and Insurer, Dr. Genoff and Dr. Call, gave much reliance to Mr. Kulzer's report. Dr. Call said that work activities play no role in developing CTS; an opinion that even Dr. Genoff and Mr. Kulzer would not agree upon. Dr. Genoff testified that Claimant's work was not "the major contributing cause" of her CTS. Mr. Kulzer testified that work activities can cause CTS, but not in this case. Dr. Call's opinion is less persuasive than the other experts, as he is of the opinion that work activities never cause CTS, an opinion that is unconvincing and more importantly, unsubstantiated by the research presented.

Dr. Genoff's opinion is less persuasive than Dr. Huff's because he holds Claimant to a higher standard than the law requires. Dr. Genoff testified that Claimant's work was not "the" major contributing cause of her CTS. This standard used by Dr. Genoff is not the standard the South Dakota courts and law use. In South Dakota, Claimant only need prove that something was "a" major contributing cause of her injury or condition. *Brown v. Douglas School District*, 2002 SD 92, ¶25. "A claimant does not need to prove that the work injury was 'the' major contributing cause, only that it was 'a' major contributing cause, pursuant to SDCL 62-1-1(7)." *Orth v. Stoeber*, 2006 S.D. 99, ¶42 (internal quotations omitted).

Dr. Huff's opinion is based upon his treatment of Claimant and his study of CTS. Dr. Huff is board certified in orthopedic surgery, independent medical examination, and occupational medicine. He testified that a diabetic female of a certain age may be more likely to develop CTS, but that her work was a direct and major contributing cause of her CTS. Claimant did not develop CTS until she started inspecting seams and then it progressed until she saw Dr. Huff. By that time, it was Dr. Huff's opinion that Claimant needed surgery and that a major contributing cause of her CTS was the tasks she performed for 7 to 10 hours per day while working for Employer. His opinion, because it holds Claimant to a correct standard, and it is sound based upon the research presented, is the most persuasive.

Claimant's work for Employer was a major contributing cause of her bilateral carpal tunnel syndrome and need for surgery and treatment. Claimant has met her burden of proving causation by a preponderance of the evidence presented.

Counsel for Claimant shall submit proposed Findings of Fact and Conclusions of Law and an Order consistent with this Decision, within 20 days of the receipt of this Decision. Employer/Insurer shall have an additional 20 days from the date of receipt of Claimant's proposed Findings of Fact and Conclusions of Law to submit objections. The parties may stipulate to a waiver of formal Findings of Fact and Conclusions of Law. If they do so, counsel for Claimant shall submit such stipulation together with an Order consistent with this Decision.

Dated June 25, 2013.

SOUTH DAKOTA DEPARTMENT OF LABOR AND REGULATION

/s/
Catherine Duenwald
Administrative Law Judge