

Decision of the Appeal Division

Number: 92-0100
Date: January 13, 1992
Panel: Lorna Pawluk
Subject: Carpal Tunnel Syndrome (#2)

The worker appeals a Review Board finding dated July 8, 1991. The issue is whether or not her carpal tunnel syndrome is the result of her employment as a grocery cashier.

The worker has been employed as a cashier for approximately 24 years. On August 14, 1990, she underwent surgery on her right hand for carpal tunnel syndrome. She says that the problem arises from her work.

In 1987, the store where the worker is employed replaced the old cash register with scanning equipment. Before 1986, this worker spent 90 per cent of her time working on the cash register, but after 1986 she spent most of her time in customer service (taking deposit returns, etc.) and as a cashier on a relief basis only. After January 1989, she spent 10-12 hours a week in the office and the rest of her time in customer service; in the fall of 1989 that changed so that she spent 60 per cent of her time as a cashier and the remaining 40 per cent in the office.

The following excerpt from the Review Board's findings describe the worker's job duties:

[The worker] described her duties as a checker, and the Panel accepts that there is a great deal of right wrist motion. She also explained that she often put paper bags inside the plastic bags, for customers that prefer this service, and then lifted the full plastic bag with her right hand, and placed it into the buggy.

She also described her office work, and the Panel understands that she was responsible for counting the morning deposit, which was a relatively small one, and the afternoon deposit which was the major one. On slow days of the week she would be counting out bundles of money containing fifty bills each, which would amount to twenty or twenty-five thousand dollars a day, but on busier days the total could be forty-five thousand dollars, and even more on

special holidays or long weekends. She described and demonstrated the counting technique, which required a flicking of her right wrist while pushing and gripping with her right thumb as she pulled each of the bills out of her left hand.

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According to the testimony adopted by the Review Board panel and the submissions made on the worker's behalf, symptoms in the right hand began to emerge in 1985 or 1986. She was not aware of any left hand symptoms. By the fall of 1989, however, the symptoms increased and by the end of the year she was experiencing pain that began in her thumb and index finger and then travelled up to her arm and neck. She felt a "ripping or burning" sensation in her forearm towards the end of the day and her symptoms frequently woke her during the night.

She first sought medical attention for these problems in May of 1990 and reported the problem to her employer on May 30, 1990.

In a medical report dated June 28, 1990, Dr. M, a specialist in physical medicine and rehabilitation, reported the following:

She is right-handed, and has had intermittently right-hand problems for years, but in the last eight or ten months has got worse for no apparent reason ...

I think she has carpal tunnel syndrome, but on a double crush basis with her fairly prompt thoracic outlet test, worse on the right. Her position is a little bit slumped. I could section the right carpal tunnel ligament, I wouldn't find any fault with that, but I would not be surprised if it didn't completely clear her problems.

On July 25, 1990, Dr. M stated about his patient's condition: "In my opinion, this lady does have a definitive diagnosis, clinically speaking, and her problems are of compensable origin." The carpal tunnel syndrome diagnosis was confirmed by Dr. F in a report dated July 30, 1990:

I agree with Dr. M — I believe this patient has a right carpal tunnel syndrome. In addition to the electrical study the fact that we can reproduce symptoms in the office is clear indication of the carpal tunnel. I believe rather than doing myelogram or any further exhausting study we should do a decompression of the carpal tunnel syndrome and if the patient does not improve perhaps in

that case we may have to look for other causes as well, but in my experience most of these patients get relief after decompression of the carpal tunnel.

A Board medical advisor concluded that the carpal tunnel syndrome in this case was not the consequence of the worker's work activities. Dr. S reported:

Though the work is certainly frequent and repetitive, it is by no means forceful. The condition has come on very gradually over many years. There is nothing unaccustomed in the work activity. There is no vibrating equipment involved. The worker is no longer in the younger age group, being 48 years of age.

In fact, the only element that is even remotely suggestive of an occupational origin is the fact that it seems to be involving only the dominant hand.

But there is no question that the vast majority of the evidence does not point to an occupational origin for her condition.

The claims adjudicator adopted this opinion and on September 12, 1990, wrote to the worker, informing her that the claim had been denied: The condition developed too gradually to be the result of work activities and the work activities were not unaccustomed and did not require sufficient force to give rise to carpal tunnel syndrome. The Review Board upheld the decision of the claims adjudicator. It would not accept the medical opinion of Dr. M and concluded that there was still some question about the diagnosis in this case.

The worker's counsel argued that the Review Board misinterpreted the evidence and should have concluded that scanning activities require the application of force sufficient to cause carpal tunnel syndrome. It was submitted that there was no requirement of forcefulness or unaccustomed work but only that all the activity be repetitive. In support the worker's representative submitted a medical report dated October 2, 1991, from Dr. M, who stated:

Perhaps I should mention to you that in my letter to Dr. H I said that this lady was a cashier and had been for 13 years. In clinical medicine, which is not written for the hair-splitters of the W.C.B., being a cashier in a supermarket says it all. That is far and away the largest group of females that have carpal tunnel syndrome, and indeed members of your union have shown me studies done in Japan I believe, that prove this. It's an accepted phenomenon pretty well around the world in other words.

[The worker] works the till with the right hand, and drags the food across the scanner with her left, and then lifts the bag with sometimes one hand, sometimes with both ...

As for Dr. S's opinion in Memo #11 — this seems to be to meet the criteria of the house rules of the W.C.B. — not the clinical rules of medicine. I get the feeling that these house rules look for a way to let the W.C.B. disclaim responsibility. As I said above, with supermarket cashiers, once you say supermarket cashier in my experience, it's much more likely than not that is the cause of their median nerve involvement.

Also, regarding the forceful aspect — this is not one of the criteria in most of the literature that I have reviewed.

Also submitted on behalf of the worker was an excerpt from *Cumulative trauma disorders: A manual for musculoskeletal diseases of the upper limbs* dealing with factors affecting force. Included in the list are: type of job, properties of the object being manipulated; size, shape and weight of the object; and surface friction.

For assistance in the adjudication of this claim, the panel sought additional medical evidence. On December 12, 1991, the following questions were put to Dr. N, the acting director and senior medical advisor, Occupational Health Department of the W.C.B.:

1. What is the role of force in the development of carpal tunnel syndrome? Is force a necessary prerequisite in all cases to development of the syndrome?
2. How do you define "force"?
3. Is this worker's right carpal tunnel syndrome the result of her work as a cashier?

Dr. N concluded that there was a relationship between the worker's occupational activity as a grocery cashier and the development of her carpal tunnel syndrome. He noted that the onset of symptoms coincided with her duties as cashier and that her symptoms worsened with a change in the nature of her work. He was also persuaded to his position by the fact that her work activities required actions of variable force and by the unilateral development of the syndrome in her dominant hand.

Concerning the role of "force" in development of the syndrome, Dr. N found that it was not essential in all cases. Specifically, he concluded:

Force is not an absolute prerequisite in all cases to the development of carpal tunnel syndrome. As related above, the risk factors for the development of a carpal tunnel syndrome which are occupationally related are several and force is only one factor to be considered. Repetitious use of the wrist involved would certainly be considered a prerequisite to establishing an occupational relationship for carpal tunnel syndrome. This is present in this case. Force is also an important factor to consider such that all other things being equal, for workers involved in frequently repetitious activities, one minimally forceful and one quite forceful, the latter worker would, in general, be at a greater risk for the development of a carpal tunnel syndrome. However, one must consider that there are individual variations in all cases.

Dr. N also pointed out that it is difficult to establish a hard and fast standard for force:

Force is difficult to define with any precision. There is obviously a continuum from minimally forceful to very forceful work activities with a gray zone in between of moderately forceful activities. One would consider the force required to move papers or make digital entries into an electronic keyboard as requiring minimal force whereas the force required to manipulate a sledge hammer would be quite forceful. One might consider the frequent lifting or carrying of less than 5 kilos to be light work whereas the frequent lifting of between 15 to 25 kilos to require moderate to heavy force.

This appeal is allowed. The evidence convinces me of a causal link between the work activity and her carpal tunnel syndrome.

Carpal tunnel syndrome is a repetitive stress injury which develops as a consequence of compression of the median nerve in the wrist. It arises in conjunction with certain physical conditions such as pregnancy or diabetes or as a result of certain repetitive hand motions and flexion activities. It is clear from the literature submitted by the union on behalf of the worker that carpal tunnel syndrome does arise in grocery checkers (Scott Barnhart and Linda Rosenstock, "Carpal Tunnel Syndrome in Grocery Checkers: A Cluster of Work-Related Illness" *The Western Journal of Medicine* (July, 1987) 39). However, general observations concerning the prevalence of a condition are of limited assistance in determining causation in a particular case. Whereas the general observations depict conditions for groups, individual determination of cause depends on specific circumstances that are not dependent upon membership in the larger group. Thus, the fact that grocery store checkers are prone to carpal tunnel syndrome is of limited assistance in determining causation of this worker's wrist problem. This

limitation was noted by the union in its submissions which provided general industry information for background purposes only.

Dr. M goes into some detail about carpal tunnel syndrome and the worker's job duties, but concentrates primarily upon prevalence of the condition in persons who work as grocery cashiers and does not concentrate on the specifics of the condition in this worker; therefore, my decision is based on the analysis of Dr. N in his December 16, 1991 memo which clearly links the worker's job activities with the development of her symptoms. I also find Dr. N's comments on "force" to be very useful and I adopt his comments in total. I also note that his comments support submissions made on the worker's behalf that forcefulness is an important factor in the development of carpal tunnel syndrome but not always as important as repetitiveness. (See Barbara A. Silverstein, Lawrence J. Fine and Thomas J. Armstrong, "Occupational Factors and Carpal Tunnel Syndrome," *American Journal of Industrial Medicine* (1987) 11:343-358.)

Finally, I prefer the comments of Dr. N to those made by Dr. S who did not find the worker's activities forceful and thus capable of producing carpal tunnel syndrome. In particular, I disagree with Dr. S's view that this worker did not engage in forceful activity. At a minimum, much of her daily work required a range of force, from light to medium. This fulfilled the requirements set out by Dr. N, and those set out by Dr. S as well.

Dr. S was also concerned that because the worker had been performing these activities for a number of years, the requirement of unaccustomed activity was not present. Even if the work must be unaccustomed — and I specifically decline to address this issue — I disagree with Dr. S's characterization of the actions as customary. I find they are unaccustomed. A few months prior to the worsening of symptoms, the worker had resumed her cashiering activities but on a much more frequent basis. Prior to that, she had been involved with the cashiering responsibilities on a fairly limited basis and thus the move to the scanner was new or unaccustomed. Finally, I note that the question of "unaccustomed activity" is not a medical issue so that it may be resolved without reference to a medical opinion.

To summarize, the evidence establishes a causal link between the worker's activities as a grocery clerk, in particular her duties as a cashier using the grocery scanner. I find that this activity is not only repetitive, but it is forceful as well. Without specifically dealing with the question of whether the activity must be unaccustomed, I conclude that the scanning activity was unaccustomed in the sense that the worker had been previously involved with other aspects of the grocery business and had done relief cashiering only. This combined with no evidence of a non-work cause and the medical opinions on file convinces me to allow the appeal.

Editors' note: This decision has been edited for publication.