



Carpal Tunnel Syndrome in Oregon, 1991-1995

Research & Analysis Section

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Carpal tunnel syndrome (CTS) is an occupational illness that affects the hand and wrist. CTS can begin suddenly or gradually and is usually caused by repetitive motion. CTS can also occur by forceful exertions, awkward positions and angulation of the wrists to perform tasks, excessive vibration from power tools, and cold temperatures. This condition or syndrome, has become the focus of much attention in the work place over the past decade.

The claims discussed in this report have been accepted as disabling by a workers' compensation insurer. The number of accepted disabling CTS claims has remained fairly stable for the past five years (see Table 1). After decreasing in 1991 and 1992, there was a 3.1 percent increase in 1993 followed by an 8.2 percent increase in 1994. However, the number decreased 6.2 percent in 1995.

Table 1. Accepted disabling claims for carpal tunnel syndrome, Oregon, 1991-1995

Year accepted	Number of CTS claims	Percent change over previous year	Percent of illness claims*	Percent of total claims
1991	1,150	-6.2%	32.5%	3.7%
1992	1,106	-3.8%	30.7%	3.6%
1993	1,140	3.1%	31.5%	3.7%
1994	1,234	8.2%	32.0%	3.9%
1995	1,157	-6.2%	30.6%	3.8%

*Because of the conversion in 1995 to a new coding system, the total number of illness claims changed. As a result, the percent of illness claims differs from the previous publication.

Industry and occupation

In 1995, manufacturing industries reported the greatest number of accepted disabling CTS claims, 384 (33.2 percent of all CTS claims). About 20.6 percent of the manufacturing CTS claims were from the wood products industry, primarily the producers of millwork, veneer, and plywood (45 claims) and sawmills and planing mills (34 claims). Service industries had 200 claims (17.3 percent of all CTS claims), of which 71 (35.5 percent) were from the health services industry. Retail trade industries had 212 claims (18.3 percent), just under 64 percent of which were from grocery stores (57 claims), eating and drinking places (41 claims), and department stores (37 claims).

Table 2 shows CTS claims rates per 1,000 workers for the major industry divisions. Overall, about 1 of every 1,000 Oregon workers had an accepted CTS claim in 1995. In the manufacturing industries, nearly two of every 1,000 workers had a CTS claim.

Operatives, except transport, was the occupational category with the greatest number of 1995 claims: 253 (21.9 percent of all CTS claims). The other occupations with large numbers of accepted CTS claims were technical and administrative support occupations with 200 claims (17.3 percent), non-farm laborers with 158 claims (13.7 percent), and service occupations with 132 claims (11.4 percent).

The main cause of CTS cases in 1995 was due to repetitive bodily motion. Repetitive motion cases accounted for 974 (84.2 percent of all CTS claims) accepted in 1995. The person themselves was coded as the source with 986 claims (85.2 percent) because the worker's repetitive bodily motions usually cause the illness.

Table 2. Claims rates for CTS cases accepted as disabling, Oregon, 1995

	CTS claims	Employment (1,000s)	% of CTS claims	CTS % of all claims*	Claims rate/1000
Total	1,157	1,431.8	100.0	3.8	0.81
Agriculture	16	57.8	1.4	1.4	0.28
Mining	2	1.7	0.2	3.2	1.18
Construction	77	67.8	6.7	2.5	1.14
Manufacturing	384	227.6	33.2	5.5	1.69
Transport, pub util	65	67.3	5.6	2.2	0.97
Wholesale	50	90.2	4.3	2.9	0.55
Retail	212	268.5	18.3	3.8	0.79
Fin, ins & real est	40	87.2	3.5	6.9	0.46
Services	200	356.4	17.3	3.5	0.56
Government	110	207.3	9.5	4.0	0.53
State	35	63.4	3.0	5.0	0.55
Local	75	143.9	6.5	3.6	0.52

Note: Due to rounding, percents may not equal 100.0. Table excludes one claim with an unreported industry code.

**All claims* means accepted disabling claims for 1995.



Secondary source, a new coding category, was added in 1995. The secondary source of injury or illness identifies the object, substance, or person that generated the source of injury or illness or that contributed to the event or exposure. In 1995, tools, instruments, and equipment accounted for 193 (16.7 percent) CTS claims. This means a worker received CTS from repetitively working with a tool, instrument or equipment.

Sex, age and tenure

Women accounted for 642 claims (55.5 percent of all CTS claims), while men had 515 (44.5 percent). This differs from the overall pattern of 1995 Oregon claims, in which women accounted for just 32 percent of the year's total.

Over half of the workers diagnosed with CTS, 625 (54 percent of all CTS claims), were between the ages of 36 and 45. The youngest claimant with CTS was 17 and the oldest worker was 74 years old. Of CTS claimants for whom length of tenure was known, 28.9 percent (297 claims) were employed with a firm one year or less and

18.9 percent had worked for their employer between 6 and 10 years at the time of diagnosis or onset of their illness.

Oregon employers should be aware of the problem of carpal tunnel syndrome and evaluate whether repetitive motion is a concern in their workplace. The Consultative Services Section of the OR-OSHA Division of the Department of Consumer and Business Services has professional staff available to assist employers in evaluating their workplace to prevent situations which might result in carpal tunnel syndrome. For assistance, please call OR-OSHA at (503) 378-3272 (V/TTY).

Table 3. Claims costs for CTS cases closed, Oregon, 1995

Accepted disabling claim type	Average medical costs	Average time loss costs	Average days lost	Average PPD costs	Average total costs
CTS claims	\$5,118	\$3,909	84	\$1,858	\$10,886
All claims	\$4,806	\$3,383	68	\$1,691	\$ 9,880

Note: PPD is permanent partial disability

Source: Oregon Department of Consumer & Business Services, Research & Analysis Section

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