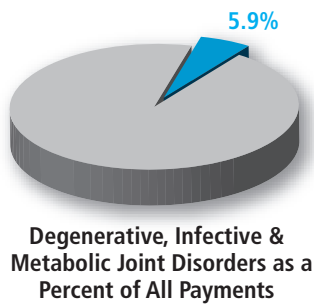
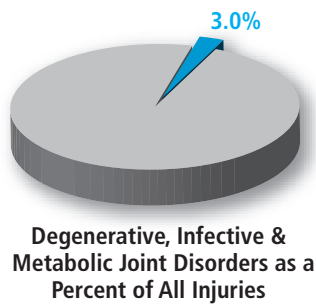




ICIS Injury Series SCORE CARD

Degenerative, Infective & Metabolic Joint Disorder

Top Work Injury Categories



| Injury Category | % Injuries | % of Payments |
|---|--------------|---------------|
| Medical Back Problems w/o Spinal Cord Involvement | 21.7% | 31.1% |
| Shoulder, Arm, Knee, Lower Leg Sprains | 13.4% | 10.0% |
| Spine Disorders w/Spinal Cord or Root Involvement | 2.0% | 8.3% |
| Ruptured Tendon, Tendonitis, Myositis & Bursitis | 5.1% | 6.4% |
| Degenerative, Infective & Metabolic Joint Disorder | 3.0% | 5.9% |
| Carpal Tunnel Syndrome | 1.1% | 2.9% |
| Other Diagnoses of Musculoskeletal Systems | 1.6% | 1.7% |
| Subtotal | 47.9% | 66.4% |

This scorecard focuses on California workers' compensation injuries, in which the primary diagnosis was a degenerative, infective & metabolic joint disorder ("joint pain"). It is the fifth in a series of analyses that will provide data from CWCI's Industry Claims Information System (ICIS) database on 7 of the top work injury categories, which together encompass 1/2 of all job injuries in the state and 2/3 of all claim payments. Joint pain diagnoses represent 3% of all work injuries in California but account for almost 6% of the associated payments.

Injured Worker Profile

2002 – 2005 Claimants

| | Joint Pain | All Claims |
|------------------------------|------------|------------|
| Average Age (Years) | 39.6 | 36.7 |
| Average Tenure (Years) | 4.3 | 3.6 |
| Gender | | |
| Male | 65.0% | 65.3% |
| Female | 35.0% | 34.7% |
| Location of Residence | | |
| Northern California | 44.5% | 41.1% |
| Southern California | 55.5% | 58.9% |

The average age of injured workers with joint pain diagnoses is three years older than the average for all injured workers and their at-injury job tenure is slightly longer. The gender mix among joint pain injuries is similar to that found in the injured population in general, but Northern Californians account for a relatively high percentage of claimants with this type of injury.

Diagnoses

Degenerative, Infective & Metabolic Joint Disorder (AY 2002 – 2005)

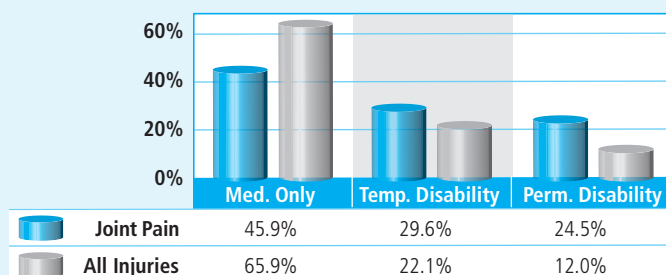
| ICD9 Descriptions | % of Claims | % of Total Paid |
|--|-------------|-----------------|
| Pain in joint, lower leg | 19.6% | 18.4% |
| Pain in joint, shoulder region | 15.2% | 13.1% |
| Pain in joint, forearm | 9.4% | 4.6% |
| Pain in joint, hand | 7.2% | 5.7% |
| Pain in joint, ankle and foot | 6.4% | 5.4% |
| Chondromalacia of patella | 4.5% | 8.3% |
| Pain in joint, upper arm | 3.6% | 2.3% |
| Unspecified internal derangement of knee | 3.1% | 3.4% |
| Pain in joint, pelvic region and thigh | 2.3% | 1.6% |
| Pain in joint | 1.9% | 0.5% |
| Other and unspecified derangement of medial meniscus | 1.3% | 2.4% |
| Osteoarthritis, localized, primary lower leg | 1.3% | 2.1% |
| Other | 24.2% | 32.2% |

Degenerative, infective, & metabolic joint disorders are most often related to pain in one of several joints including the lower leg, shoulder, forearm, hand, ankle or foot. The top 6 diagnoses account for 62% of joint pain injuries and nearly 56% of the joint pain claim dollars.

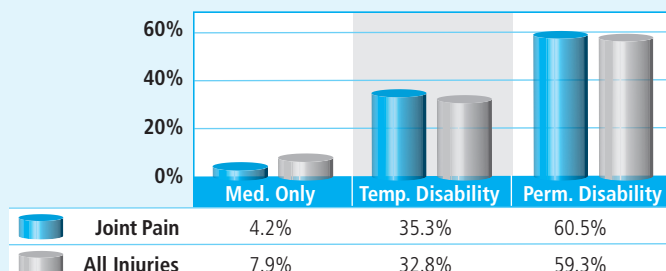
Claim and Payment Distribution by Claim Type

Joint Pain vs. All Injuries (AY 2002 – 2005)

Percent of Claims



Percent of Payments



More than 54% of joint pain injuries result in lost time (TD and/or PD) vs. 34% of all injuries. About 1 in 4 joint pain claims ends up with a permanent disability – twice the proportion noted for all injuries. Although a high percentage of joint pain claims result in a permanent disability, PD cases account for 60% of total benefits paid on joint pain claims -- the same proportion noted for all claims -- suggesting that joint pain injuries result in relatively low PD awards.

Distribution by Industry Sector

Degenerative, Infective & Metabolic Joint Disorder

| Industry Sector | % of Joint Pain Injuries by Sector | Joint Pain as % of Injuries in Sector |
|------------------------------------|------------------------------------|---------------------------------------|
| Construction | 18.5% | 3.0% |
| Manufacturing | 13.7% | 2.3% |
| Professional and Clerical Services | 13.4% | 3.5% |
| Mercantile | 12.0% | 2.8% |
| Agriculture | 7.8% | 3.2% |
| Restaurants | 4.6% | 2.6% |
| Hospitals | 3.1% | 3.8% |
| Parcel Delivery Companies | 2.9% | 3.2% |
| Trucking | 1.8% | 3.3% |
| Nursing Homes | 1.2% | 2.5% |
| Other Industry | 21.0% | 3.2% |
| TOTAL | 100.0% | 3.0% |

More than 1/2 of joint pain injuries come from the construction, manufacturing, professional, clerical and mercantile sectors. Overall, joint pain diagnoses account for about 3% of all claims and their prevalence within various industry sectors ranges from 2.3% of all injuries in manufacturing to 3.8% of all injuries in hospitals.



ICIS Injury Series SCORE CARD

Degenerative, Infective & Metabolic Joint Disorder

Average Benefits by Injured Worker County of Residence

Joint Pain vs. All Claims (Select Counties AY 2002 - 2005)

| County | % of Joint Pain | % of All Claims | Avg. Paid Per Claim | | Avg. Paid As % of Statewide Avg. | |
|------------------|-----------------|-----------------|---------------------|----------------|----------------------------------|-------------|
| | | | Joint pain | All Claims | Joint pain | All Claims |
| Los Angeles | 17.1% | 21.8% | \$23,439 | \$11,025 | 127% | 119% |
| San Diego | 7.0% | 8.0% | \$21,840 | \$8,417 | 118% | 91% |
| Riverside | 5.7% | 5.0% | \$19,457 | \$10,320 | 105% | 112% |
| San Bernardino | 5.5% | 5.5% | \$19,515 | \$9,872 | 105% | 107% |
| Orange | 5.3% | 6.2% | \$20,825 | \$10,575 | 113% | 114% |
| Fresno | 3.8% | 3.8% | \$17,843 | \$6,916 | 96% | 75% |
| Sacramento | 3.6% | 4.2% | \$17,455 | \$7,856 | 94% | 85% |
| Ventura | 3.3% | 2.4% | \$21,452 | \$11,197 | 116% | 121% |
| Alameda | 3.2% | 3.8% | \$19,743 | \$10,231 | 107% | 111% |
| Stanislaus | 2.8% | 2.3% | \$17,816 | \$7,654 | 96% | 83% |
| Santa Clara | 2.8% | 3.8% | \$18,922 | \$9,275 | 102% | 100% |
| San Francisco | 1.8% | 1.7% | \$13,419 | \$7,653 | 73% | 83% |
| Other Counties | 48.1% | 31.5% | \$15,040 | \$8,081 | 80% | 87% |
| Statewide | 100.0% | 100.0% | \$18,498 | \$9,253 | 100% | 100% |

More than 1 in 5 injured workers in California as well as 1 in 6 joint pain claimants live in Los Angeles County, where claim costs are among the highest in the state -119% of the statewide average for all claims, 127% of the statewide average for joint pain.

Several counties show a different relative cost among joint pain claims when compared to all claims. For example, average benefit payments to San Diego County residents with joint pain claims are 118% of the statewide average, whereas average payments to San Diego County residents for all work injury claims are only 91% of the statewide average.

PPO/MPN Utilization

% of Visits to Preferred Providers By Type of Service
Joint pain vs. All Injuries (AY 2002 - 2005)

| Type of Service | | PPO | | | MPN |
|---------------------------|--------------|-------|-------|-------|-------|
| | | 2002 | 2003 | 2004 | 2005 |
| E&M | Joint Pain | 51.9% | 48.4% | 53.0% | 69.4% |
| | All Injuries | 56.7% | 56.0% | 61.6% | 74.0% |
| Surgery | Joint Pain | 40.2% | 40.2% | 41.6% | 59.6% |
| | All Injuries | 51.7% | 52.6% | 55.7% | 69.5% |
| Radiology | Joint Pain | 38.9% | 37.8% | 35.9% | 49.1% |
| | All Injuries | 45.9% | 45.9% | 47.2% | 58.5% |
| Medicine Section | Joint Pain | 28.4% | 28.8% | 31.5% | 61.7% |
| | All Injuries | 39.9% | 40.0% | 49.3% | 70.1% |
| Physical Therapy | Joint Pain | 21.6% | 21.9% | 28.5% | 33.6% |
| | All Injuries | 23.3% | 23.5% | 36.7% | 50.3% |
| Chiropractic Manipulation | Joint Pain | 7.4% | 5.7% | 7.2% | 24.6% |
| | All Injuries | 8.1% | 7.9% | 11.2% | 32.0% |
| Total Visits | Joint Pain | 30.1% | 29.1% | 37.7% | 50.1% |
| | All Injuries | 32.1% | 32.6% | 47.6% | 63.2% |

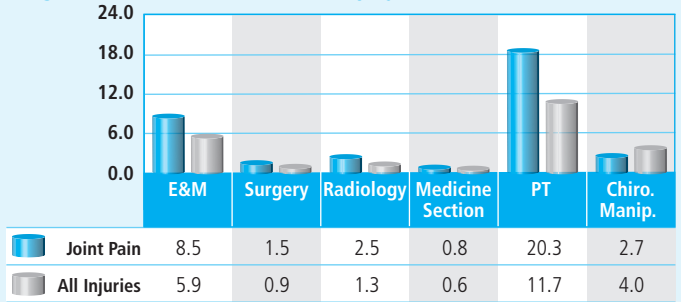
The use of preferred providers to treat injured workers has increased significantly since reform implementation. Overall utilization of preferred providers in California workers' compensation almost doubled from 32% of all visits for AY 2002 injuries to 63% of all visits for AY 2005 injuries. During the same period, preferred provider use for joint pain problems rose less dramatically from 30% to 51%.

The increased use of networks coincided with the 2005 introduction of Medical Provider Networks (MPNs) which featured medical control for the life of the claim, a significant change from the pre-reform 30-day medical control window. It is notable, however, that for physical therapy and chiropractic manipulation, the increase in the network utilization rate was significantly less for joint pain injuries than for all injuries.

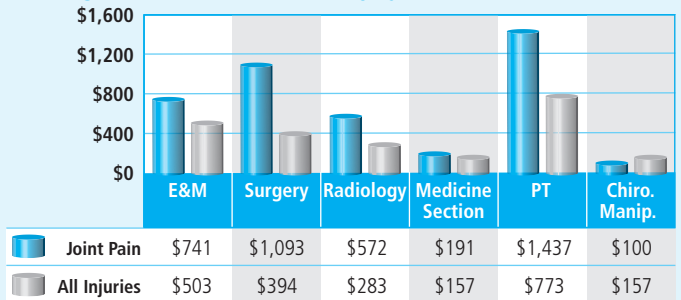
Medical Development at 24 Months

Joint Pain vs. All Injuries (AY 2002 - 2003)

Avg. of Visits at 24 Months Post Injury - Selected OMFS Sections



Avg. Paid at 24 Months Post Injury - Selected OMFS Sections

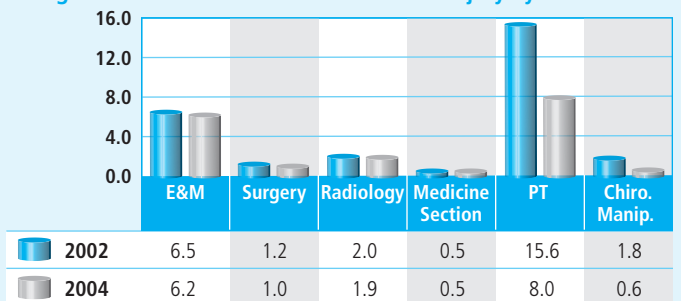


Using AY 2002 and 2003 claims, CWCI calculated the average number of visits and payments in 6 fee schedule sections for all claims and for joint pain injuries at 24 months. Averages included medical only and indemnity claims and were not limited to those that involved a specific type of care. Joint pain treatment plans rely heavily on diagnostic radiology, physical therapy and surgical intervention, so average amounts paid for these services at 2 years are significantly higher for joint pain than for all injuries. The average number of visits and average amounts paid for evaluation and management and medicine section services also are higher for joint pain claims.

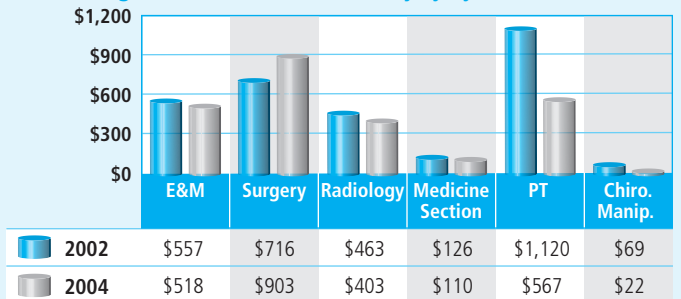
Medical Utilization & Payments: Pre- vs. Post-Reform

Joint Pain Claims - Pre-Reform (AY 2002) vs. Post-Reform (AY 2004)

Average Number of Visits at 12 Months Post Injury by OMFS Section



Average Paid at 12 Months Post Injury by OMFS Section



A comparison of AY 2002 and 2004 data at 12 months post injury shows that following reform implementation, medical utilization for joint pain injuries declined across 5 of the 6 types of services; while the use of medicine section services was unchanged. PT and chiropractic manipulation had the most notable reductions. The average number of first-year PT visits fell 49%, reducing the average amount paid for PT from \$1,120 to \$567, while the average number of first-year chiropractic manipulation visits declined 67%, cutting the average amount paid for these services from \$69 to \$22.



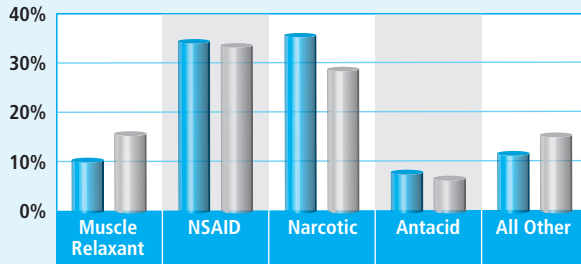
ICIS Injury Series SCORE CARD

Degenerative, Infective & Metabolic Joint Disorder

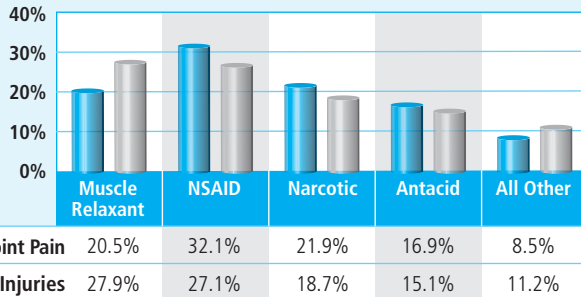
Prescription Drugs

Joint Pain vs. All Injuries (2005)

Distribution of Prescriptions by Drug Category



Distribution of Paid Dollars by Drug Category



Narcotics are heavily used to treat joint pain injuries (nearly 36% of the prescribed drugs vs. about 29% of all work injury prescriptions); while muscle relaxants represent only 10% of joint pain medications vs. 15.6% of all workers' comp prescriptions. Non-steroidal anti-inflammatory drugs consume nearly 1/3 of the joint pain prescription dollars, followed by narcotics (about 22%). Muscle relaxants, which account for more workers' compensation prescription dollars than any other drug category, rank third in terms of drug payments for joint pain claims.

Prescription Drugs by Volume and Payment

Joint Pain vs. All Claims (2005)

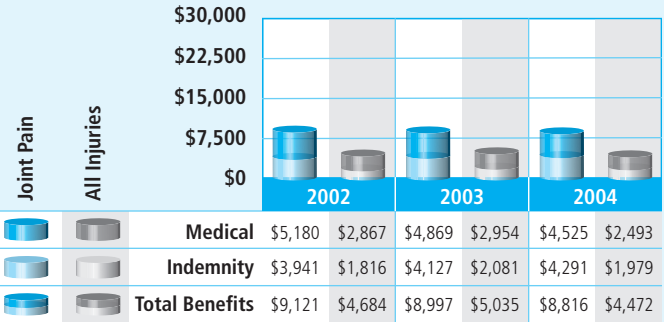
| Drug Grouping | Drug Class | % of Total Prescriptions | | % of Total Paid | |
|--------------------------|----------------------|---------------------------|--------------|---------------------------|--------------|
| | | Inflamed Muscles & Joints | All Claims | Inflamed Muscles & Joints | All Claims |
| Hydrocodone | Narcotic | 18.1% | 13.3% | 9.0% | 7.4% |
| Ibuprofen | NSAID | 9.5% | 10.9% | 3.1% | 3.6% |
| Naproxen | NSAID | 7.7% | 6.9% | 7.2% | 6.7% |
| Ranitidine | Antacid | 5.5% | 4.7% | 11.0% | 11.1% |
| Carisoprodol | Muscle Relax | 5.1% | 7.1% | 12.1% | 17.8% |
| Propoxy | Narcotic | 4.3% | 3.7% | 2.2% | 2.3% |
| Tramadol | Narcotic | 3.1% | 2.7% | 2.7% | 2.9% |
| Piroxicam | NSAID | 2.3% | 1.8% | 3.3% | 3.2% |
| Cyclobenzaprine | Muscle Relax | 2.0% | 3.2% | 1.3% | 2.1% |
| Acetaminophen w/ Codeine | Narcotic | 1.6% | 1.7% | 0.7% | 0.7% |
| Celebrex | NSAID | 1.6% | 0.8% | 2.6% | 1.3% |
| Diclofenac | NSAID | 1.5% | 1.2% | 1.5% | 1.4% |
| Etodolac | NSAID | 1.2% | 1.5% | 1.7% | 2.2% |
| Cephalexin | Antibiotic | 1.2% | 1.9% | 1.1% | 2.1% |
| Banalg Liniment | Pain Relief Ointment | 1.2% | 1.9% | 0.2% | 0.5% |
| Top 15 | | 66.1% | 63.2% | 59.7% | 65.4% |

Generic drugs were grouped with their brand equivalents to identify the most commonly prescribed drugs and associated payments. The narcotic Hydrocodone topped the list of most prescribed drugs for joint pain and for all injuries, followed by the NSAID Ibuprofen, though in both groups the muscle relaxant Carisoprodol consumed the most prescription drug dollars.

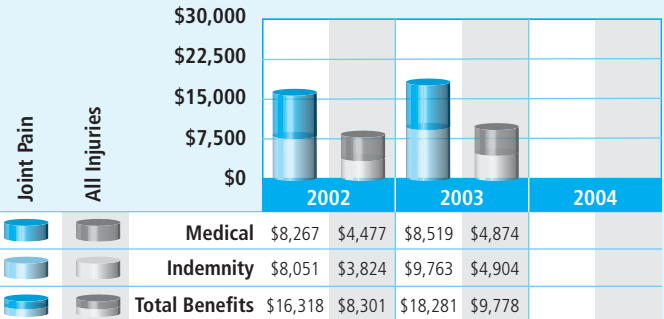
Loss Development

Joint Pain vs. All Injuries

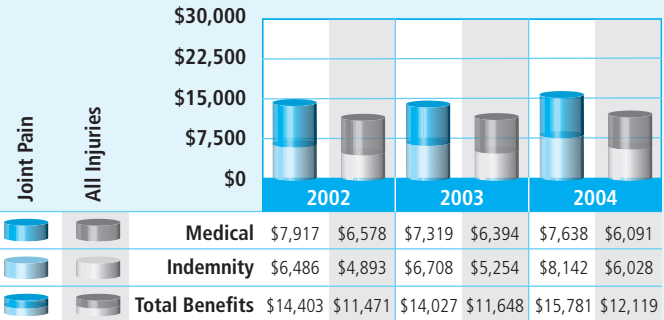
All Claims 12 Months Post Injury



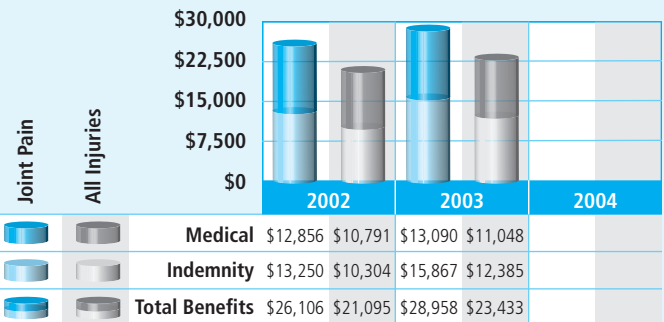
All Claims 24 Months Post Injury



Indemnity Claims 12 Months Post Injury



Indemnity Claims 24 Months Post Injury



Joint pain injuries are relatively expensive. Average benefit costs for all joint pain claims and joint pain indemnity claims were above those noted for all injuries across all study years at both 12 and 24 months post injury. Among AY 2003 claims, average loss costs for joint pain claims at 24 months post injury were nearly 24% higher than the average for all claims.

Payments on joint pain claims show a similar pattern of claim development compared with all claims. For example, at 24 months post injury, payments for AY 2003 joint pain indemnity claims climbed to \$28,958 (+ 106%) from the 12-month payment level. In comparison, average payments for indemnity claims for all injuries rose 101% between 12 and 24 months post injury. Among the AY 2003 claims, indemnity payments were the biggest cost driver in the second year following the injury, accounting for 61% of the overall increase in joint pain claims and 60% among all injury claims.



Nature of Injury

Claim Distributions for Joint Pain vs. Other Injuries & All Injuries (AY 2002 - 2005 Claims)

| Nature of Injury | Percent of Claims | | |
|---------------------------------|-------------------|-------------------------|--------------|
| | Joint Pain | Other Types of Injuries | All Injuries |
| Strain | 33.7% | 29.4% | 29.5% |
| All Other Cumulative Injuries | 18.7% | 11.6% | 11.8% |
| All Other, NOC | 12.5% | 8.4% | 8.5% |
| Sprain | 9.4% | 6.2% | 6.3% |
| Contusion | 8.1% | 8.2% | 8.2% |
| Fracture | 3.7% | 3.3% | 3.4% |
| Multiple Physical Injuries Only | 3.2% | 2.7% | 2.7% |
| Inflammation | 2.6% | 1.6% | 1.6% |
| Laceration | 2.6% | 13.7% | 13.4% |
| Dislocation | 1.2% | 0.3% | 0.3% |
| All Other | 4.3% | 14.6% | 14.3% |

"Strains," which are often cumulative injuries occurring over time, are the number one nature of injury category, accounting for 1/3 of joint pain injuries and almost 30% of all work injuries. In addition, nearly 1 in 5 joint pain injuries are listed as "other cumulative injuries," compared to 1 in 9 work injuries overall. A relatively high percentage of joint pain injuries also fall into the sprain, fracture, multiple physical injury, inflammation or dislocation "nature of injury" categories.

Cause of Injury

Claim Distributions for Joint Pain vs. Other Injuries & All Injuries (AY 2002 - 2005 Claims)

| Cause of Injury | Percent of Claims | | |
|--|-------------------|-------------------------|--------------|
| | Joint Pain | Other Types of Injuries | All Injuries |
| Strain/Injury: NOC | 14.1% | 8.5% | 8.7% |
| Fall/Slip: Miscellaneous | 8.7% | 5.1% | 5.2% |
| Misc. Causes: Other Injury (not otherwise classified) | 8.3% | 6.2% | 6.3% |
| Strain/Injury: Lifting | 7.6% | 12.2% | 12.1% |
| Fall/Slip: On Same Level | 5.4% | 3.1% | 3.1% |
| Misc. Causes: Cumulative Injury (not otherwise classified) | 5.4% | 2.7% | 2.8% |
| Repetitive Motion (Carpal Tunnel Syndrome) | 5.3% | 2.8% | 2.8% |
| Strain/Injury: Pushing or Pulling | 4.1% | 3.6% | 3.7% |
| Strain/Injury: Twisting | 3.5% | 1.6% | 1.6% |
| Fall/Slip: From Different Level | 3.1% | 2.0% | 2.0% |
| All Other | 34.5% | 52.2% | 51.7% |

Joint pain injuries have a wide range of causes. Strains are the most frequently cited cause of joint pain, listed in 29% of the cases (these include strains associated with lifting, pushing pulling or twisting). Falls and slips (including "on the same level," "from a different level," and "miscellaneous") cause another 17% of the joint pain injuries, while miscellaneous causes (including "cumulative injury" and "other injury") are cited as the cause of nearly 14% of all work-related joint pain injuries.

Time Lags

Date of Injury to Employer Notice, Carrier Notice & First Treatment Joint Pain vs. All Injuries (AY 2002 vs. 2004)

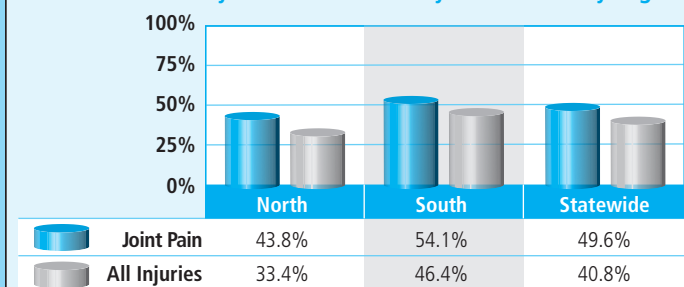
| | | Median # of Days | |
|--------------------------------|------------|------------------|------|
| | | 2002 | 2004 |
| Employer Notification | Joint Pain | 0.0 | 0.0 |
| | All Claims | 0.0 | 0.0 |
| Carrier Notification | Joint Pain | 7.0 | 7.0 |
| | All Claims | 7.0 | 6.0 |
| Time to First Treatment | Joint Pain | 15.0 | 12.0 |
| | All Claims | 3.0 | 2.0 |

To gauge how long it takes for a claim to unfold, and how this has changed recently, CWCI compared the median number of days from the injury date to employer notice, carrier notice, and initial treatment for joint pain and all claims from AY 2002 and 2004. A median is the midpoint in a series of numbers -- half the data values fall above the median, half fall below. In both years, the median time to employer notice was 0 days for joint pain and for all claims, reflecting same-day notice, but the median time to carrier notice was 7 days for both AY 2002 and AY 2004 joint pain claims. Though, the median time to first treatment for joint pain improved from 15 to 12 days, that is still 10 days longer than the median for all claims, reflecting the subjective nature and prevalence of cumulative traumas among joint pain injuries.

Attorney Involvement

Joint Pain vs. All Injuries (AY 2002 - 2005 Claims)

Percent of Indemnity Claims with Attorney Involvement by Region

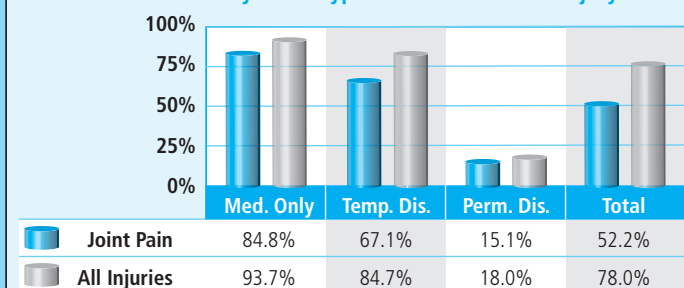


Statewide, attorneys are involved in 1/2 of all joint pain indemnity claims vs. 41% of all indemnity claims. The litigation rate in joint pain claims is significantly higher than the overall litigation rate in both Northern and Southern California.

Claim Closure Rates

Joint Pain vs. All Injuries (AY 2002 - 2003)

Closure Rates by Claim Type at 24 Months Post Injury



At 24 months, the overall claim closure rate of 52.2% for joint pain injuries is well below the 78.0% closure rate for all work injury claims. This is due in part to differences in the mix of claims by claim type, as joint pain claims are much more likely to involve lost time (TD and PD) and take longer to close. Notably, at 2-years post injury, the claim closure rate for joint pain injuries is lower for med-only, TD, and PD cases.

ICIS Injury Scorecards are based on Industry Claims Information System data, compiled and maintained by the California Workers' Compensation Institute, 1111 Broadway, Suite 2350, Oakland CA 94607, (510) 251-9470. Additional injury scorecard data is posted in the ICIS section of the Institute's website (www.cwci.org).

About CWCI: The California Workers' Compensation Institute, incorporated in 1964, is a private, non-profit organization of insurers and self-insured employers conducting and communicating research and analyses to improve the California workers' compensation system.