

**Chronic neck pain and whiplash: a case-control study of the relationship between acute whiplash injuries and chronic neck pain.**

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FROM ABSTRACT:

The authors undertook a case-control study of chronic neck pain and whiplash injuries in nine states in the United States to determine whether whiplash injuries contributed significantly to the population of individuals with chronic neck and other spine pain.

419 patients and 246 controls were randomly enrolled.

Patients were defined as individuals with chronic neck pain, and controls as those with chronic back pain.

The two groups were surveyed for cause of chronic pain as well as demographic information. The two groups were compared using an exposure-odds ratio.

45% of the patients attributed their pain to a motor vehicle accident.

Based on the results of the present study, it is reasonable to infer that a significant proportion of individuals with chronic neck pain in the general population were originally injured in a motor vehicle accident.

THESE AUTHORS ALSO NOTE:

“What is the contribution of late whiplash to the total pool of individuals with chronic neck pain in the general population?”

These authors also cite references noting:

- 1) A substantial proportion of a chiropractor’s practice consists of patients with chronic neck and back pain.
- 2) In the US, chiropractors are the initial treating physician for one of every three individuals who seek treatment for spine pain.
- 3) Chiropractors provide 40% of all treatment for low back pain.

In this study of 655 chiropractic patients:

- 1) 63% had chronic neck or chronic neck/back pain.
- 2) 37% had chronic low back pain.
- 3) 60% of these patients were women and 40% were men.

"The most frequent named cause of chronic pain among the cases was an acute motor vehicle accident, reported by 44% of all male cases and 45% of all female cases." **[Important]**

"Motor vehicle accidents caused more chronic neck and chronic neck/back pain than any other etiological agent." **[Important]**

"The observed insidious onset of pain with age most probably is due to the effect of degenerative disc and joint disease, which typically begins at 40 years of age and progresses thereafter, and can cause or contribute to chronic spine pain." **[Important]**

29% of women reported that the cause of their chronic low back pain was a motor vehicle accident.

38% of women reported that the cause of their chronic low back pain was of insidious onset.

17% of men reported that the cause of their chronic low back pain was a motor vehicle collision.

"Among men and women combined, motor vehicle accident injuries accounted for 45% of all neck and neck/back pain, and 24% of all low back pain."

"The study results indicate that men with chronic neck, or chronic neck/back pain, are four times more likely to attribute their injury to a motor vehicle crash compared with their counterparts with chronic low back pain."

"Women with chronic neck, or chronic neck/back pain, are twice as likely to attribute their injury to a motor vehicle crash compared with their counterparts with chronic low back pain."

The findings of this study differ from conclusions reached by the 1995 Quebec Task Force on Whiplash-Associated Disorders (published in Spine) which found that "acute motor vehicle accident injuries are unlikely to or do not progress to chronic pain."

## CONCLUSIONS

This study shows that injuries from motor vehicle collisions “contribute significantly to the population of individuals with chronic pain in the neck in the United States.” **[Important]**

Individuals with chronic neck pain or chronic neck/back pain are “more likely to have acquired their pain as a result of a motor vehicle accident in comparison with individuals with chronic back pain alone.”

This study shows that chronic whiplash pain is “considerably more prevalent than previously reported.” **[Important]**

### THE BOTTOM LINE:

The most conservative prevalence of chronic neck pain in the United States is 13.8% of the population.

This study shows that 45% of those with chronic neck pain in the United States is caused by a motor vehicle collision.

This means that 6.2% of the United States population have chronic neck pain.

[300,000,000 (three hundred million) Americans X 0.062 = 18.6 million Americans are living with chronic neck pain caused by a motor vehicle collision.] (The authors of this article used a lower population figure and calculated that 15.5 million Americans have chronic neck pain from motor vehicle collisions.)

### KEY POINTS FROM DAN MURPHY

- 1) A substantial proportion of a chiropractor’s practice consists of patients with chronic neck and back pain.
- 2) In the US, chiropractors are the initial treating physician for one of every three individuals who seek treatment for spine pain.
- 3) Chiropractors provide 40% of all treatments for low back pain.
- 4) Motor vehicle collisions are the cause of 45% of all chronic neck and chronic neck/back pain. **[Important]**
- 5) Motor vehicle collisions cause 24% of all chronic low back pain. **[Important]**
- 6) “Motor vehicle accidents cause more chronic neck and chronic neck/back pain than any other etiological agent.” **[Important]**

- 7) The insidious onset of pain with age most probably is due to degenerative disc and joint disease, which typically begins at 40 years of age and can cause or contribute to chronic spine pain.
- 8) The assertion, of the 1995 Quebec Task Force on Whiplash-Associated Disorders (published in Spine), that acute motor vehicle accident injuries are unlikely to or do not progress to chronic pain appears to be incorrect.
- 9) Injuries from motor vehicle collisions “contribute significantly to the population of individuals with chronic pain in the neck in the United States.”
- 10) Chronic whiplash pain is “considerably more prevalent than previously reported.” **[Important]**
- 11) A minimum of 13.8% of the US population [about 41.4 million] has chronic neck pain.
- 12) Motor vehicle collisions are responsible for 45% of those with chronic neck pain in the US, [about 18.6 million Americans].
- 13) A significant proportion of individuals with chronic neck pain in the general population were originally injured in a motor vehicle accident.