

**Chronic low back pain in individuals with chronic neck pain of traumatic and non-traumatic origin  
A population-based study**

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FROM ABSTRACT

It is unclear whether the prevalence of chronic low back pain is higher in chronic whiplash patients than in the general population.

In a population-based study, we evaluated the prevalence of chronic low back pain in individuals with chronic neck pain of traumatic and non-traumatic origin, with special emphasis on whiplash injury.

4,415 subjects aged 25–64 years were randomly selected from a geographically well-defined area in northern Sweden.

The prevalence of chronic low back pain was 16% and the prevalence of chronic neck pain was 17%.

51% of subjects had both back and neck pain.

The prevalence of chronic low back pain in individuals with chronic **non**-traumatic neck pain was 53%.

The prevalence of chronic low back pain in individuals with chronic **traumatic** neck pain was 48%.

Therefore, there was no difference in the prevalence of chronic low back pain between whiplash injury and other types of neck pain.

Interpretation:

Independently of traumatic or nontraumatic origin of the symptoms, the prevalence of chronic low back pain is 3 times higher in individuals with chronic neck pain than in the general population.

THESE AUTHORS ALSO NOTE:

“Chronic low back pain is common in the general population.”

Whiplash injuries account for the majority of cases of cervical spine trauma.

“At the initial assessment after a whiplash injury, a history of low back pain has been reported in 10–50% of the cases.”

In follow-up studies on whiplash patients, low back pain is one of the most common complaints in addition to chronic neck pain.

There is an “association between whiplash patients with persistent neck pain and chronic low back pain.”

This study looked at 4,415 individuals, all below the age of 65 years.

Chronic low back pain was defined as continuous pain lasting more than 6 months.

## RESULTS

16% had chronic low back pain.

17% of women had chronic low back pain.

13.6% of men had chronic low back pain.

Chronic low back pain was more common in women and increased with age.

“The prevalence of chronic low back pain in individuals with chronic non-traumatic neck pain was 53% and 48% in those with chronic neck pain with a history of neck trauma.”

“The prevalence of chronic low back pain was at the same level in those with and without a history of neck trauma.”

## DISCUSSION:

“We found that chronic neck pain per se, irrespective of origin, is accompanied by a high rate of chronic low back pain.”

“Patients with chronic neck pain after different types of injury to the cervical spine had the same rate of chronic low back pain as uninjured cases.”

In this study, “whiplash injury had the same prevalence of chronic low back pain as those without a neck injury.”

“Individuals with persistent regional pain are more prone to report persistent pain elsewhere.”

The theory that chronic “pain at one site of the body may induce pain at other sites seems applicable in these cases, and may explain our findings.”

Chronic symptoms were defined as “persistent daily symptoms lasting more than 6 months.”

“Half of our cases with whiplash injury had chronic neck pain.” **[Important]**

Car accidents account for 85% of neck injuries.

In conclusion, the “prevalence of chronic low back pain is 3 times higher in individuals with chronic neck pain—irrespective of whether it is of traumatic or non-traumatic origin—than in the general population.”

#### KEY POINTS FROM DAN MURPHY

- 1) The prevalence of chronic low back pain in individuals with chronic **non-**traumatic neck pain was 53%.
- 2) The prevalence of chronic low back pain in individuals with chronic **traumatic** neck pain was 48%.
- 3) The prevalence of chronic low back pain between whiplash injury and non-whiplash causes of neck pain is essentially the same. This means that whiplash injury does **not** increase the incidence of chronic low back pain.
- 4) The prevalence of chronic low back pain is 3 times higher in individuals with chronic neck pain than in the general population. This means that any cause of chronic neck pain, including whiplash injury, will triple the incidence of chronic low back pain.
- 5) Car accidents account for 85% of neck injuries.
- 6) 10–50% of whiplash patients will report low back pain.
- 7) In follow-up studies on whiplash patients, chronic low back pain is one of the most common complaints.
- 8) There is an “association between whiplash patients with persistent neck pain and chronic low back pain.”
- 9) Chronic low back pain was more common in women and increased with age.
- 10) Chronic neck pain, irrespective of origin, is accompanied by a high rate of chronic low back pain.
- 11) 50% of those with whiplash injury have chronic neck pain. **[Important]**