

Five Years After the Accident, Whiplash Casualties Still Have Poorer Quality of Life in the Physical Domain than Other Mildly Injured Casualties: Analysis of the ESPARR Cohort

BMC Public Health
January 5, 2016; 16; 13

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This article has 52 references.

The aim of this study was to compare health status and quality of life five years after a road accident between casualties with whiplash versus other injury types.

The study included 167 casualties with “pure” whiplash and 185 casualties with other injury types.

The whiplash injuries were classified following the Quebec classification (grades I and II).

	WAD-I 5 years	WAD-II 5 years	Non Whiplash Injury, 5 years
Dissatisfied with Health	27%	39%	24%
Chronic Pain	22%	41%	
Chronic Neck Pain	22%	34%	7%
Headache	27%	27%	10%
Psychological Sequelae	21%	28%	17%

KEY POINTS FROM THIS ARTICLE:

- 1) “Whiplash is reported to generate both short- and long-term consequences, such as neck pain, headache, dizziness, sensory disorder and reduced neck mobility. These symptoms are often grouped together as “whiplash-associated disorder (WAD).”
- 2) “Whiplash injury and WAD have been widely described in the international literature: in most studies, more than half of whiplash casualties reported non-recovery 1 year after the accident.” **[Important]**
- 3) Whiplash injury is a predictive factor for post-traumatic stress disorder (PTSD). [about 17% at 1 year]

- 4) Unsatisfactory health at 5 years, with deteriorated quality was observed specifically in the whiplash group.
- 5) At 5 years, grade-II whiplash casualties were more dissatisfied with their health (39.4 %) than non-whiplash (24.3 %) or grade-I whiplash casualties (27.0%).
- 6) "Deteriorated quality of life in the physical domain remained 5 years after the accident, specifically in the grade-II whiplash group, pain playing a predominant intermediate role, which may be in line with the hypothesis of neuropathic pain."
- 7) A previous analysis of road-accident casualty subjects "showed that, 1 year after a low-severity road accident, subjects suffering from whiplash had recovered poorly compared to subjects with other minor injuries."
- 8) In the year following the accident, 16.8 % of whiplash casualties presented PTSD (grade I: 17.5 %; grade II: 16.3 %; non-whiplash casualties: 12.4 %).
- 9) "Five years after the accident, whiplash casualties (in particular, grade II) were twice as likely to report pain as non-whiplash casualties (40.7 % vs. 22.2 %)."
- 10) Whiplash casualties suffered from neck pain (grade I, 22.2; grade II, 33.7).
- 11) One in four whiplash casualties suffered from headaches related to the accident (grades I and II, 26.9 %; 10 % for non-whiplash casualties).
- 12) Psychological sequelae were frequent in all three groups (grade I, 20.6 %; grade II, 27.9 %; non-whiplash, 17.3 %).
- 13) Grade-II whiplash casualties were more dissatisfied with their health (39.4 %) than non-whiplash (24.3 %) or grade-I whiplash casualties (27.0 %).
- 14) Whiplash status was related to unsatisfactory overall health, especially for grade-II whiplash (relative increased risk by 48%).
- 15) "Pain was significantly associated with poorer overall quality of life and unsatisfactory health."
- 16) "Results showed that, 5 years after mild road-crash injury, a significant number of patients still showed deteriorated quality of life."
- 17) "Grade-II whiplash subjects were more often dissatisfied with their health in terms of persistence of pain, and this was not explained by psychological history or development of PTSD." **[Important]**

18) Pain, headache and psychological sequelae related to the accident were strongly present in whiplash subjects five years after the accident; whiplash subjects were twice as likely to report pain as non-whiplash subjects (whiplash, 40.7 %; non-whiplash, 22.2 %).

19) Whiplash subjects in the present study most often reported pain located in the neck (29.3 %), compared to less than 5 % of non-whiplash subjects.

20) In this study, 16.8 % of the whiplash group was suffering from PTSD at the one-year follow-up.

21) Studies have found “no association between lodging a claim and the persistence of moderate/severe symptoms for 12 months in whiplash casualties.”
[Important]

22) “Considering that the only significant difference between the two whiplash groups concerned the circumstances of the accident, and notably that psychological conditions were similar, the lack of improvement in the grade-II group, in marked contrast to the grade-I group, which greatly improved, can only be explained by pain, possibly neuropathic, related to a more severe initial neck injury; this could explain the perception of poorer overall health in the grade-II group.” **[Key Point]**

23) “Unsatisfactory health at 5 years, with deteriorated quality of life in the physical domain, was observed specifically in the whiplash group.” “Grade-II whiplash casualties were particularly affected.”

KEY POINTS FROM DAN MURPHY:

- Whiplash injury is different than neck injury from other mechanisms.
- 5 years after being injured with whiplash, over 40% of grade-II subjects are suffering from chronic pain. The evidence suggests that this chronic pain is neuropathic in nature (pain caused by nerve damage).
- This study adds to the evidence showing that whiplashed-injured patients are not all resolved in weeks to months, or even years.