



Title Whiplash – diagnosis and evaluation

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Annually, there are approximately 2000 new cases of whiplash injury due to motor vehicle collisions in Norway. The increasing incidence of whiplash injuries from motor vehicle accidents in Norway and a general lack of certainty and agreement regarding how such injuries should be managed has been the background for this health technology assessment. Uncertainty exists both in the diagnosis and treatment of patients and in the handling of possible insurance and compensation claims.

This report is a systematic review. An English summary is available at www.sintef.no/smm.

SMM Conclusions

- Three to five percent of all persons exposed to a whiplash injury mechanism following a motor vehicle collision develop acute whiplash injury symptoms within 0 to 3 days.
- The most common symptoms of acute whiplash are neck pain and stiffness (80% of the 3% to 5% who develop symptoms) and headache.
- There is no documented evidence to support a causal relationship between type or grade of injury and specific symptoms or symptom constellations.
- A minority of patients (10% of the 3% to 5% who develop symptoms) develop chronic complaints that have a considerable impact on their level of functioning.
- The clinical characteristics related to the development of chronic symptoms are unclear. Objective signs are far from specific and are not robust enough to lead one to common pathophysiological mechanisms for “chronic whiplash syndrome”.
- Evidence-based documentation has not been found to support the contention that chronic complaints following a whiplash injury mechanism are specific or are directly related to the actual injury mechanism.
- We are thus left with an incomplete ‘diagnostic explanation’ for this condition, and thus stress the need for further research in this area. Also needed is greater knowledge of the normal physiology of the neck and the general development of chronic pain.

The report is available in Norwegian at: www.sintef.no/smm.