

# Interventions For Preventing Injuries In The Construction Industry - A Systematic Cochrane Review

**Marika Lehtola**

Finnish Institute of Occupational Health, Cochrane Occupational Health Field, Finland

Occupation injuries among construction workers are one of the major factors that lead to occupational disability. Various interventions to prevent occupational injuries have been proposed and studied, but the effectiveness of the different interventions on occupational injuries remains unclear. Several attempts have been made to summarise the effectiveness of safety interventions in reviews, but these reviews are either outdated or focused just on the prevention of one event, for example falling from roofs or on one injury type. This is why Cochrane Occupational Health Field (COHF) wanted to apply Cochrane methodology on this important topic and make a Cochrane review that summarizes systematically the most current scientific evidence on the effectiveness of interventions to prevent all types of occupational injuries in construction work.

A systematic search was conducted of the literature on preventing occupational injuries among workers at construction sites. Then the quality of the found studies was assessed and their results combined.

Five interrupted time series studies were found and included in the review. Three studies evaluated the effect of legislation, one of a safety campaign, and one of a drug-free workplace program on fatal or non-fatal injuries compared to no drug-free workplace program. Limited evidence was found that legislation is not effective to prevent non-fatal and fatal injuries in the construction industry. However, limited evidence was found that a safety campaign as well as a drug free workplace program is effective in reducing non-fatal injuries in the construction industry.

Therefore, announcing legislation alone is not effective to reduce fatal and non fatal injuries in the construction industry. Additional strategies are necessary that actually increase the compliance of employers and workers to the safety measures as prescribed by legislation. Continuing interventions among management and construction workers, like a targeted safety campaign or a drug-free workplace program, seem effective for reducing injuries in the longer term.

It is also concluded that a high internal validity and a correct statistical analysis are feasible for studies with interrupted time series over several years. Therefore the interrupted time series design should be applied more often to evaluate the effectiveness of safety interventions on fatal and non-fatal injuries among construction workers