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## Factors related to work participation among manual workers after hand injuries: one year follow up cohort study

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**Introduction**: The hand is an active and exposed structural organ of the upper extremity. Hand injuries (HI) are thus common, and may result in physical and functional disability that limits participation in a wide range of activities, including work.

**Objectives:** The purpose of the present cohort study was to determine which factors effect on time to return to work (TRTW) 12 months after HI among manual workers.

**Methods**: Study participants included 178 adult males recruited from occupational therapy clinics. Baseline medical and injury information was obtained from medical records including objective hand evaluation and structured questionnaires. To establish a predictive model, 16 independent variables were evaluated using multiple Cox regressions analysis.

**Results:** At the end of one year study, 75.3% participants returned to work, most of them during the first six month after the injury. The median TRTW was 94 days. In the final model, level of self-efficacy, legal counsel, ethnicity, job requirements, National Insurance Institute work disability benefit claim, pain, the severity of the injury, emotional response to trauma and level of self-reporting of physical function and symptoms were significantly associated with TRTW.

**Conclusions**: We recommend emphasizing the temporal and phase-specificity aspect in the rehabilitation process, focusing during the first months on the physical capability of the hand and after that on pain management and the psychosocial aspects. Further studies are recommended in order to examine the effect of rehabilitation programs on RTW.