

# The association between neck disability and jaw disability.

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## Abstract

**Summary** The association between cervical spine disorders (CSD) and temporomandibular disorders (TMD) has been extensively investigated. However, no studies investigating the relationship between the level of jaw disability and neck disability have been published. Therefore, the objective of this study was to determine whether there was a relationship between neck disability measured using the neck disability index (NDI) and jaw disability measured through the jaw function scale (JFS). A sample of 154 subjects who attended the TMD/Orofacial Pain clinic and students and staff at the University of Alberta participated in this study. All subjects were asked to complete the NDI, the JFS, the jaw disability checklist (JDC), and the level of chronic disability of TMD (chronic pain grade disability questionnaire used in the RDC/TMD). Spearman rho test was used to analyse the relationship between neck disability and jaw disability. Multiple regression analysis was used to determine the association between the level of chronic disability of TMD and neck disability. A strong relationship between neck disability and jaw disability was found ( $r = 0.82$ ). A subject with a high level of TMD disability (grade IV) increased by about 19 points on the NDI when compared with a person without TMD disability. These results have implications for clinical practice. If patients with TMD have neck disability in addition to jaw disability, treatment needs to focus on both areas because the improvement of one could have an influence on the other.

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