

Cold intolerance of the hand measured by the CISS questionnaire in a normative study population. Ruijs AC, Jaquet JB, Daanen HA, Hovius SE. J Hand Surg Br. 2006 Oct;31(5):533-6. Epub 2006 Jun 30.

## **Abstract**

Cold intolerance has been recognized as one of the most disabling sequelae of upper extremity trauma, especially when neurovascular structures are involved. In this study, we aimed to describe cold intolerance in a normative study population, validate the Cold Intolerance Symptom Severity (CISS) questionnaire and define the threshold for abnormal cold intolerance. One hundred and eight volunteers participated in our study. In addition to the CISS score, information about age, gender and previous surgery or trauma to the upper extremity was obtained. There were no volunteers with previous peripheral nerve injury and subjects with a history of Raynaud's disease, upper extremity injury or surgery were excluded (n=40). The CISS scores of the study population (n=68) averaged 12.9 (SD 8.2). Age and gender were not correlated with CISS score. The upper 95% confidence interval of the CISS scores for healthy subjects is about 30. We suggest this value as a threshold for pathological cold intolerance.