Impaired range of motion of limbs and spine in chronic fatigue syndrome.

OBJECTIVE: To determine whether adolescents and young adults with chronic fatigue syndrome (CFS) have a greater prevalence of impaired range of motion (ROM) of the limbs and spine than healthy control patients.

STUDY DESIGN: Case-control study comparing rates of abnormal ROM in 48 consecutive adolescents and young adults with CFS and 48 healthy control patients matched by sex and joint hypermobility. We examined range of ankle dorsiflexion, passive straight-leg raise, seated slump, upper-limb neurodynamic test, prone knee bend, and prone press-up. Abnormal ROM was defined before the study began. The number of abnormal responses ranged from 0 (normal ROM throughout) to 11 (impaired ROM in all areas tested).

RESULTS: The median number of areas with impaired ROM was greater in patients with CFS at the onset of stretch in the involved limb (5 vs 2, P<.001) and at end-range (2 vs 0, P<.001). Patients with CFS were more likely to have greater than 3 areas of impaired ROM (OR 6.0, 95% CI 2.1-17.3; P<.001) and were more likely to develop abnormal symptomatic responses to the individual tests and to the overall assessment (40% vs 4%; P<.001).

CONCLUSIONS: Impaired ROM is more common in subjects with CFS than in healthy adolescents and young adults matched by sex and joint hypermobility. Adding a longitudinal strain to the nerves and soft tissues provoked symptoms in some subjects with CFS. The causes, functional impact, and optimal treatment of these abnormalities warrant further study.