

## **Orthostatic Intolerance in Adolescent Chronic Fatigue Syndrome**

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**Objectives.** To demonstrate the association between orthostatic intolerance and the chronic fatigue syndrome (CFS) in adolescents and to delineate the form that orthostatic intolerance takes in these children.

**Study Design.** We investigated the heart rate and blood pressure (BP) responses to head-up tilt (HUT) in 26 adolescents aged 11 to 19 years with CFS compared with responses in adolescents referred for the evaluation of simple faint and to responses in 13 normal healthy control children of similar age.

**Results.** A total of 4/13 of the controls and 18/26 simple faint patients experienced typical faints with an abrupt decrease in BP and heart rate associated with loss of consciousness. One CFS patient had a normal HUT. A total of 25/26 CFS patients experienced severe orthostatic symptoms associated with syncope in 7/25, orthostatic tachycardia with hypotension in 15/25, and orthostatic tachycardia without significant hypotension in 3/25. Acrocyanosis, cool extremities, and edema indicated venous pooling in 18/25. None of the control or simple faint patients experienced comparable acral or tachycardic findings.

**Conclusions.** We conclude that chronic fatigue syndrome is highly related to orthostatic intolerance in adolescents. The orthostatic intolerance of CFS often has heart rate and BP responses similar to responses in the syndrome of orthostatic tachycardia suggesting that a partial autonomic defect may contribute to symptomatology in these patients. **Key words:** orthostatic intolerance, chronic fatigue, adolescent.