

## **Influence of exhaustive treadmill exercise on cognitive functioning in chronic fatigue syndrome.**

LaManca JJ, Sisto SA, DeLuca J, Johnson SK, Lange G, Pareja J, Cook S, Natelson BH. (1998) Chronic Fatigue Syndrome Cooperative Research Center, University of Medicine and Dentistry of New Jersey-New Jersey Medical School, Newark, USA.

The purpose of this study was to determine the effect of exhaustive exercise on cognitive performance of patients with chronic fatigue syndrome (CFS) and sedentary healthy controls (CON). Subjects were 19 women with CFS and 20 CON. A test battery consisting of 4 cognitive tests (CTB) was given pre-, immediately post-, and 24 hours post-treadmill exercise to exhaustion. No differences were seen on the CTB pre-exercise. CFS patients improved at a slower rate than CON on the Symbol Digit Modalities Test (SDMT), Stroop Word Test (SWT), and Stroop Color Test (SCT). When compared with CON, a lower number of correct responses was seen for the CFS immediately postexercise on the SDMT (61 +/- 3 vs 66 +/- 2), SWT (137 +/- 6 vs 146 +/- 6), and SCT (99 +/- 4 vs 107 +/- 3), and 24 hours postexercise on the SDMT (64 +/- 3 vs 69 +/- 2), SWT (134 +/- 7 vs 148 +/- 5), and SCT (101 +/- 4 vs 106 +/- 3). We conclude that after physically demanding exercise, CFS subjects demonstrated impaired cognitive processing compared with healthy individuals.

PMID: 9790484 [PubMed - indexed for MEDLINE]