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Aerobic Exercise May Reduce Excessive Cocaine Use

Aerobic exercise may protect against binge-like patterns of cocaine use, suggests a new study. Rats allowed access to running wheels self-administered less cocaine than did rats that were not.

The research was presented at Neuroscience 2010, the annual meeting of the Society for Neuroscience, held in San Diego.

"Our findings represent the first demonstration that exercise reduces binge-like patterns of cocaine intake," said senior author Mark A. Smith, PhD, of Davidson College. "This adds to a growing number of studies reporting that physical activity may have beneficial effects on maladaptive patterns of druguse," he said.

Drug addiction is often characterized by episodes of brief but excessive drug intake, during which individuals exhibit compulsive patterns of drug use. Such "binges" are associated with negative outcomes, including criminal activity, visits to hospital emergency rooms, and high-risk sexual behavior. Interventions that reduce either the duration or severity of these binges could therefore have a significant impact on public health.

"Although randomized clinical trials examining aerobic exercise have not yet been conducted, recent studies report that individuals who participate in exercise-related activities during a formal treatment program maintain higher abstinence rates," Smith said. "Our findings also support the expanded use of exercise-based interventions in drug addiction treatment."

Editor's Note: This article is not intended to provide medical advice, diagnosis or treatment.