Exercise Withdrawal Causes Mood Change Within Days

By Anne Harding

NEW YORK (Reuters Health) - People who exercise regularly start feeling depressed and fatigued after just one week of forced inactivity, a new study shows.

Those who were in the best shape experienced the greatest loss in fitness when they stopped exercising, and also showed the worst negative mood symptoms.

Ali A. Berlin of the Uniformed Services University of the Health Sciences in Bethesda, Maryland says she's not sure that the results would apply to a person who was skipping workouts of their own accord, perhaps to do something fun. "I think future research is needed to really answer that question."

Sedentary people are more likely to be depressed, while a number of studies have suggested that symptoms of depression like fatigue, tension and irritability can develop in a fit person who stops exercising, Berlin and her colleagues note in the March-April issue of Psychosomatic Medicine.

To get a clear picture of how exercise withdrawal might affect mood, the team looked at 40 men and women who normally exercised at least three times weekly for at least 30 minutes. Half were instructed to stop exercising for two weeks, while the other half continued with their regular routine.

At one and two weeks, Berlin and her team evaluated participants for somatic (i.e., body-related) symptoms of depression such as fatigue, poor appetite, difficulty sleeping and low energy, as well as mental symptoms such as irritability, sadness and self-criticalness.

By one week, Berlin and her team found, the individuals who stopped exercising reported more fatigue and other somatic symptoms than those who had kept working out. At the second week, the non-exercisers reported more mental symptoms as well.

While there was no statistically significant loss of fitness on average, the researchers did find that the people who were the most fit -- as measured by their VO2max, which represents the body's ability to use oxygen efficiently -- showed the greatest loss in fitness. And those who experienced the greatest drop in fitness showed the sharpest drop in mood.

Berlin and her colleagues theorize that exercise helps preserve mood by shifting the body's nervous system balance away from the sympathetic nervous system, which is responsible for triggering the "fight or flight response," toward the parasympathetic nervous system, which quiets the body. "Exercise can affect this balance, it basically lets you calm down more efficiently," she explained.

Halting exercise, Berlin and her team propose, causes the balance to shift back toward the sympathetic system. "If you're body's revved up all the time, obviously you're going to start to feel tired," she added.

Berlin and her colleagues are now analyzing additional information from the current study to explore their hypothesis.

SOURCE: Psychosomatic Medicine, March-April 2006.



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