

Clinical Update

Folic acid may boost vascular function for female runners

Supplements of folic acid may boost heart function and improve athletic performance in young female runners, says a new study from the US.

(*Clinical Journal of Sport Medicine*, May 2010)

Women who exercise excessively may stop menstruating or develop irregular menses as a consequence. The condition is known as amenorrhea. This may lead to an increase in the risk of heart disease. However, according to new findings published in the *Clinical Journal of Sport Medicine*, the potentially detrimental effects on vascular health may be offset by folic acid fortification.

Scientists from the Medical College of Wisconsin in Milwaukee report that folic acid may improve blood flow-mediated dilation in the arteries, and thereby increased blood flow to the heart.

The findings could be of importance to the estimated three million girls in high school who participate in high level sports, and the 23 million women who run at least six times a week. Statistics indicate that about 44% of these runners have athletic-associated amenorrhea.

Led by Anne Hoch, the researchers recruited 20 female college or recreational runners aged between 18 and 35, who had been regularly running at least 20 miles a week over the previous 12 month period. Half of the women were amenorrheic and the control group were menstruating normally. Initial analysis showed that amenorrheic women had reduced blood vessel dilation similar to postmenopausal women.

Both sets of women were assigned to receive a daily folic acid dose of 10 milligrams for four weeks.

Results showed a normalization of the vascular function in the amenorrheic women after folic acid supplementation. *"The earliest sign of heart disease can be measured by reduced dilation in the brachial artery of the arm in response to blood flow. Reduced vascular dilation can limit oxygen uptake and affect performance,"* said Hoch.

No changes were observed in the control group, said the researchers.

Hoch and her co-workers said that further study is necessary to determine the lowest optimal dose of folic acid for athletic amenorrhea which offers the maximum benefit. They also note that folic acid may not only boost heart health, but may also improve athletic performance for these women.

(Source: www.nutraingredients.com)