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Active individuals with inadequate B-vitamin intakes may perform worse in high-intensity exercise, in part because of a decreased ability to build and repair muscle. National B-vitamin recommendations may be too low, so athletes with poor or restricted diets should consider use of a multivitamin supplement.

INADEQUATE VITAMIN LEVELS MAY RESULT IN POOR ATHLETIC PERFORMANCE

Active individuals lacking in B-vitamins may perform worse during high-intensity exercise and have less ability to repair and build muscle than individuals with nutrient-rich diets.

The B vitamins, which include thiamin, riboflavin, vitamin B6, vitamin B12, and folate (folic acid), are necessary for the body to convert proteins and sugars into energy. They are also used during the production and repair of cells, including red blood cells.

A team of researchers analyzed the diet and athletic performance of several elite athletes, collegiate athletes, and less competitive individuals. Even a marginal deficiency in B-vitamins negatively impacted markers related to cellular repair, efficiency, and immune function.

Exercise-induced stress, increased loss of nutrients (in sweat, urine and feces), and the additional nutrients needed to repair and maintain higher levels of lean tissue mass can all increase an athlete's B-vitamin requirements.

The researchers noted that current national B-vitamin recommendations for active individuals may be inadequate, and that chronic deficiencies could jeopardize athlete's abilities and long-term health. Athletes and individuals with poor and restricted diets should consider supplementation to ensure adequacy.

< Woolf K, Manore MM. *Int J Sport Nutr Exerc Metab* 2006(16):5. >