NITRIC OXIDE SUPPLEMENTS

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Nitric oxide (NO), a gas produced naturally in the body, relaxes blood vessels and increases blood flow. Many pre-workout supplements are marketed as NO or nitric oxide boosters, with claims they can improve strength, performance, and endurance. Importantly, dietary supplements do not actually contain NO, because it s a gas. Instead, NO supplements contain amino acids primarily L-arginine and L-citrulline or nitrates, all of which the body uses to make NO.  
  
Supplements intended to increase your body s production of NO purportedly enhance blood flow and the transport of oxygen and nutrients to the muscles. The intended end result is improved performance. Some research results suggest NO-producing supplements might improve times during distance events, delay fatigue, or both, for some people.  
  
Foods with nitrates also are promoted to release NO. Dietary sources of nitrates (NO3) include beets and green, leafy vegetables; watermelon is a good source of L-citrulline. Many athletes and Warfighters now use beetroot juice as a source of NO. A number of research studies have shown that nitrates from beetroot juice might reduce exercise-induced muscle damage and extend the time before exhaustion. However, the results of these studies are mixed, and variables include type of NO producer (amino acids vs. nitrates), dose or serving size, and intensity and duration of exercise.  
  
Because the ingredients in NO supplements can vary greatly, it isn t possible to make a statement about their overall safety. Some dietary supplements marketed as NO boosters contain stimulants or other potentially problematic ingredients (unrelated to the NO effect) that can increase the risk of adverse reactions. However, obtaining NO from real foods such as beets, spinach, watermelon, and the like is a good option. For ratings on the safety and effectiveness of individual NO products, please visit the Natural Medicines database.