

Plant-Based Nitrates: Good for Your Neurons, Too

Your muscles use a fair amount of oxygen. But they're no match for your brain. That's why newer studies on vegetable nitrates for blood flow support are looking beyond athletic performance and evaluating brain health benefits.



For AMPED™ NOx users ~ that's good news ~ nitrate-rich beverages like beet juice have now been shown to help support brain cognition. The product is now not only one that helps you train harder and longer, but it also helps you focus and improve decision making.

HOW NITRATES WORK IN YOUR BRAIN

Your brain comprises merely two to three percent of your total body weight yet consumes 20 to 25 percent of your body's oxygen supply. To keep up with the brain's neural activity, nitric oxide is produced and supported by nitrates you get in your diet. Through supplementation with dietary nitrates, studies suggest greater support for transport of glucose, oxygen, and other nutrients to protect brain cells and promote signaling (1-4).

Nitrates can also help protect against blood vessel stiffness that can impair blood flow (5). Any impairment in cerebral blood flow, for example, can interfere with oxygen consumption and the brain's electrical signaling network. These consequences explain why blood vessel stiffness, specifically in the brain, is associated with cognitive decline (6).

Studies evaluating use of nitrate-rich juices are found to combat this brain blood vessel stiffness through support of nitric oxide.

In a study, researchers investigated the effect of beet juice in healthy young adults to explore this effect on cerebral blood flow (7). Using a crossover design, participants were randomly assigned to receive either a placebo control of orange juice or beet juice drinking two hours before the intervention.

The study included 10 healthy young women who engaged at two levels of submaximal exercise, 40 percent and 80 percent of their peak exercise intensities. The study used exercise to place more stress on the larger artery structures in the brain to better gauge arterial flexibility.

Following the supplementation of beet juice, nitric oxide levels increased and arterial stiffness decreased 20 to 25 percent in the young women regardless of level of aerobic exercise.

This study demonstrated reductions in cerebral artery stiffness in young healthy individuals. It also provided evidence that nitrate supplementation can benefit a broad age range.

The results are also suggestive of a mechanism for improvement in cognitive function with dietary nitrate supplementation. Vegetable-based nitrates clearly aren't just for exercising muscles anymore.

References

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