

## Health Bulletin: Can Creatine Train Your Mind and Your Body?

Jerry F. Benzl, M.D.  
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For athletic performance, creatine supplementation has a long history of popular use and with good reason—it is supported by strong evidence (Kerksick et al., 2026). It now turns out that what is good for our muscles can also be good for our neurons. This makes sense for a few reasons.

The way creatine helps support physical training is mainly by acting as a supplemental energy boost at the cellular level. It helps maintain and rapidly regenerate ATP levels, particularly during periods of high energy demand such as intense physical activity. (Wyss & Kaddurah-Daouk, 2000; Mooney & Bhadha, 2026). Based on some research creatine helps brain cells survive under stress—across many different types of injury—likely by stabilizing cellular energy systems (Beal, 2011). There is also evidence that problems with brain energy metabolism may play a role in conditions like depression, and creatine has been studied as a potential way to help address this (Kious et al., 2019).

If we consider major depression, large population data suggest that higher dietary creatine intake is associated with lower rates of depression, with a consistent dose-response relationship. However, this is observational evidence and does not establish causation, as other dietary and lifestyle factors may also contribute (Bakian et al., 2020). Further supporting this idea, in a randomized, double-blind, placebo-controlled trial in women with major depressive disorder, it was found that creatine augmentation led to faster and greater improvement in symptoms, though the small sample size means the findings are preliminary (Lyo et al., 2012). While some interesting evidence suggests creatine may accelerate antidepressant response when added to SSRI medications, this effect is, to date, based largely on a single trial and more confirmation is needed (Jeryous Fares et al., 2026).

Creatine may also modestly affect certain aspects of cognition. For example, a small randomized, double-blind, placebo-controlled trial in patients with bipolar depression found that creatine supplementation improved verbal fluency, though no significant effects were seen on most other cognitive measures and the sample size was small (Toniolo et al., 2017). A systematic review of randomized controlled trials found that creatine supplementation may improve

short-term memory and reasoning in healthy individuals, though effects on other cognitive domains were inconsistent (Avgerinos et al., 2018). In a meta-analysis of randomized controlled trials, it was found that creatine may improve memory, attention speed, and processing speed in adults, but notably there was little to no effect on overall cognition or executive function (Xu et al., 2024). Currently, the strength of evidence that creatine generally improves brain function is limited by small study sizes, inconsistent findings, and differences in study design, populations, and cognitive testing methods. As such, current findings should be interpreted as preliminary rather than definitive.

Should creatine be part of treatment for mental health? As always, the cost of a treatment, be that in actual money or potential side effects, should be measured against the potential benefits. In the case of creatine, it is generally inexpensive and well tolerated, with early evidence suggesting modest benefits as an adjunct to standard treatments, though the overall data remain limited and not yet definitive; importantly, rare cases of hypomania or mania have been reported, particularly in individuals with bipolar disorder, warranting caution (Jeryous Fares et al., 2026). Creatine is generally safe for kidney function in healthy individuals, though it can increase blood creatinine levels and should be used cautiously in those with pre-existing kidney disease. All in, creatine should at least help gains in the gym!

### References

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