



IS CREATINE WORTH THE HYPE?



What the Science Really Says About This Popular Supplement

Creatine is everywhere right now. From gym-goers to wellness influencers, it's one of the most talked-about supplements.

But is it only for bodybuilders, or is there more to the story?

Research now shows that creatine's benefits go well beyond muscle strength. One of the most unexpected effects reported by users is an improvement in mood.

This handout breaks down what creatine is, how it works, the science-backed benefits, common myths, and best practices for daily use.

What Is Creatine?

Creatine is a compound naturally found in the body and in animal-based foods like meat and fish. It's produced by the liver, kidneys, and pancreas, and stored mainly in the muscles. Its primary role? Supporting the production of ATP (adenosine triphosphate)—our cells' energy currency.

Because ATP powers everything from movement to memory, creatine's impact goes beyond the gym. And since levels naturally decline with age, supplementation may offer support for cognition, mood, bones, & more.

Proven Benefits of Creatine Supplementation

• Muscle Strength & Mass

Supports strength and helps prevent age-related muscle loss (sarcopenia). Strong muscles also support better metabolic health, blood sugar regulation, and brain function¹.

• Bone Health

When combined with resistance training, creatine may help preserve bone density in older adults¹.

• Brain Function

Improves memory and cognitive clarity, especially under stress like sleep deprivation^{2,3}.



Emerging Benefits (More Studies Needed)

- **Mood Support**

May enhance mood and support depression treatment as an adjunct to conventional care⁴.

- **Knee Osteoarthritis**

Some studies show benefit when used alongside resistance training⁵.

- **Fertility**

Preliminary evidence suggests potential benefit in male and female fertility⁶ (*not studied in pregnancy*).

- **Cardiovascular Health**

May improve arterial stiffness and markers of atherosclerosis in older men⁷.

Common Myths Debunked

Myth #1: Creatine Causes Hair Loss

This myth came from a small study that showed a temporary increase in DHT (a hormone linked to hair loss) in rugby players. However, no hair loss was measured, and DHT levels remained within normal range. No study has shown a direct link between creatine and hair loss.

Myth #2: Creatine Causes Weight Gain and Bloating

Yes, creatine increases water content—but inside your muscles, not under your skin. This can enhance strength, hydration, and appearance⁸.

The 2–5 lb weight gain seen early on is usually from water retention, not fat⁹. Bloating tends to occur at high doses (10–20g/day), not the standard 3–5g/day.

Myth #3: Creatine Damages the Kidneys

Multiple long-term studies show creatine is safe for healthy individuals. Slight increases in creatinine may occur, but this reflects increased muscle metabolism, not kidney damage. Standard doses (3–5g/day) are well-tolerated when hydration is maintained.

How to Take Creatine

- **Standard Dose:** 3–5g/day (no loading phase needed)
- **Timing:** Anytime, consistently. Pre-workout (1.5–2 hours before) is optional
- **With Food:** Taking with carbs may enhance muscle uptake
- **For Travel or Jet Lag:** Temporary increase to 10g/day for cognition support



Recommended Type of Creatine

- Creatine Monohydrate – most studied and effective
- Choose brands that are purity-tested and Prop 65 compliant
- Add-ons like Taurine and D-Ribose may support ATP production which is especially helpful for plant-forward eaters

In Summary

Creatine is more than a gym supplement. It supports strength, energy, brain function, and even mood. Most negative myths don't hold up against scientific evidence.

Who may benefit from creatine?

- Active adults
- Aging populations
- Low meat eaters
- Individuals seeking support for cognition, performance, or mood

Caution for Those Prone to Cold Sores

Creatine is naturally high in glycine, an amino acid that competes with lysine in the body. Because lysine plays a role in suppressing the herpes simplex virus, individuals who are prone to cold sores may experience more frequent outbreaks if lysine levels become depleted. If this applies to you, consider supplementing with lysine-rich foods or a lysine supplement alongside creatine to maintain balance.

Disclaimer

Consult a healthcare provider if you have kidney issues, are pregnant, or have chronic conditions.

Sources

1. [Effects of Creatine and Resistance Training on Bone Health in Postmenopausal Women](#)
2. [Effects of Creatine Supplementation on Brain Function and Health](#)
3. [Single dose creatine improves cognitive performance and induces changes in cerebral high energy phosphates during sleep deprivation](#)
4. [Efficacy and safety profile of oral creatine monohydrate in add-on to cognitive-behavioural therapy in depression: An 8-week pilot, double-blind, randomised, placebo-controlled feasibility and exploratory trial in an under-resourced area](#)
5. [Beneficial effect of creatine supplementation in knee osteoarthritis](#)
6. [Creatine as a Promising Component of Paternal Preconception Diet](#)
7. [Effects of acute creatine supplementation on cardiac and vascular responses in older men; a randomized controlled trial](#)
8. [Creatine monohydrate supplementation on body weight and percent body fat](#)
9. [Acute creatine loading increases fat-free mass, but does not affect blood pressure, plasma creatinine, or CK activity in men and women](#)