ActivPower IRX

HUMAN KNOWLEDGE BASE • INGREDIENT SCIENCE

Creatine Monohydrate for Human Energy, Cognition & Healthy Aging

A well-studied nutrient central to cellular energy (ATP), studied to support performance, cognition, and healthy aging.

IRx-ZEUS® | COGNEX® | ATP · Phosphocreatine | Cellular Energy

What Is Creatine?

Creatine is a naturally occurring compound produced by the body and found in foods such as meat and fish. About 95% of the body's creatine is stored in skeletal muscle, with smaller amounts in the brain, heart, and other tissues. Within cells it helps regenerate **adenosine triphosphate (ATP)**, the body's primary energy currency. Creatine monohydrate is included in **IRx-ZEUS®** and **COGNEX®** for humans because of its well-established role in supporting the body's natural energy systems.

Cellular & Mitochondrial Energy

Creatine functions as part of the phosphocreatine energy system, which rapidly replenishes ATP when energy demands increase. Researchers increasingly recognize creatine as an energy buffer that may support cellular bioenergetics and mitochondrial function — so it is now considered an important nutrient for healthy energy metabolism across tissues, including muscle and brain, rather than solely a sports-nutrition ingredient.

Creatine & Cognitive Function

The brain is one of the body's most energy-demanding organs. Because creatine participates in ATP regeneration, researchers have investigated whether increasing brain creatine stores supports cognitive performance.

- Systematic reviews and meta-analyses suggest creatine may support aspects of cognition — particularly memory, attention, and mental performance under increased demand (aging, sleep deprivation, intense mental effort).
- Results remain mixed, and additional high-quality research is still needed.

Emerging evidence suggests that maintaining healthy brain energy metabolism may be a primary mechanism through which creatine supports cognitive wellness.

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Healthy Aging & Physical Function

As individuals age, maintaining muscle mass, strength, physical function, and cognitive vitality becomes increasingly important. Research shows creatine supplementation, particularly combined with regular physical activity, may help support healthy muscle function and physical performance in older adults, with some studies suggesting potential cognitive benefits during aging. Maintaining efficient cellular energy production is widely recognized as an important component of healthy aging.

Safety & Scientific Consensus

The International Society of Sports Nutrition (ISSN) has concluded that creatine monohydrate is safe, effective, and well-supported by decades of research when used appropriately, and it is generally recognized as the most researched and validated form of creatine available.

The ActivPower Perspective

ActivPower includes creatine monohydrate in IRx-ZEUS® and COGNEX® as part of broader formulations designed to support energy metabolism, physical performance, and cognitive wellness — grounded in creatine's fundamental role in ATP regeneration and healthy cellular energy production throughout life.

FEATURED IN

IRx-ZEUS® & COGNEX® for Humans

Power Your Possible™

Selected References — Human Literature

1. Kreider RB, et al. International Society of Sports Nutrition position stand: safety and efficacy of creatine supplementation in exercise, sport, and medicine. *J Int Soc Sports Nutr.*
2. Prokopidis K, et al. Creatine and cognition in aging: a systematic review of evidence in older adults. *Nutr Rev.*
3. Bakian A, et al. The effects of creatine supplementation on cognitive performance: a systematic review and meta-analysis. *BMC Med.*
4. Effects of creatine supplementation on cognitive function in adults: systematic review and meta-analysis. *Front Nutr.*
5. Creatine as a mitochondrial theranostic in predictive, preventive and personalized medicine. (review)
6. Heads up for creatine supplementation and brain health. *Sports Med.*

DISCLAIMER

This article is provided solely for educational and informational purposes and summarizes selected scientific literature concerning creatine monohydrate as a nutritional ingredient in humans. Nothing herein is intended to diagnose, treat, cure, mitigate, or prevent any disease, injury, arthritis, inflammatory disorder, or medical condition in humans.

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