

The Brookbush Institute Publishes NEW Glossary Updates: 'Counter-movement Jump' and 'Power'

The Brookbush Institute continues to enhance education with new courses, a modern glossary, an AI Tutor, and a client program generator.

NEW YORK, NY, UNITED STATES, April 17, 2025 /EINPresswire.com/ -- Excerpt from the glossary term: [Counter-movement Jump](#)

- Additional Glossary Term: [Power](#)

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DEFINITION

The Counter-movement Jump (CMJ) is a vertical jump performed with a

preparatory downward movement prior to take-off (the "counter-movement"). It begins with a quick eccentric/pre-stretch phase (rapid squat-like descent and arm backswing), followed by a brief amortization phase (transition), and ends with a forceful concentric phase (upward jump).

This jump pattern utilizes the stretch-shortening cycle (SSC) to enhance power output by

optimizing elastic energy storage, stretch reflex activation, and neuromuscular coordination.



Tracking jump height, peak force, or ground contact time over time can help coaches assess training effectiveness, recovery status, or risk of injury."

Dr. Brent Brookbush, CEO of Brookbush Institute



CMJ -

<https://brookbushinstitute.com/glossary/counter-movement-jump-cmj>

The CMJ is widely used in sports performance testing to assess lower-body power and rate of force development (RFD). It is often contrasted with the squat jump (which begins from a static position) to evaluate an athlete's ability to use the SSC effectively.

FREQUENTLY ASKED QUESTIONS

What is the purpose of the counter-movement in a CMJ?

- The counter-movement enhances jump height by using the stretch-shortening cycle. The pre-stretch results in stored elastic energy in tendons and muscles, and activates the stretch reflex, both of which contribute to a more powerful concentric contraction.

How is the CMJ different from a squat jump?

- A squat jump begins from a static position without a prior descent, eliminating the stretch-shortening cycle. The CMJ includes a dynamic pre-load (eccentric phase), which typically results in higher jump heights and greater peak power output.

What does the CMJ test measure?

- The CMJ is primarily used to assess explosive lower-body power and, indirectly, neuromuscular readiness, fatigue, or asymmetries. It is a common performance metric in strength and conditioning, rehabilitation, and sports science.

What are the phases of the counter-movement jump?

- Eccentric Phase: Rapid descent and arm backswing
- Amortization Phase: Shortest possible pause at the bottom
- Concentric Phase: Explosive upward jump

Can CMJ performance be improved with training...

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