

Ashwagandha

Boosts Muscle Strength, Recovery



THEORY:

Ashwagandha

(*Withania somnifera* Dunal), has been used for millennia for a range of health benefits via effects on the nervous system, endocrine system, cardiopulmonary system and energy production system. Traditional Ayurveda also advocates the use of ashwagandha for “bala” or “strength.” Could ashwagandha function as an ergogenic aid, supporting physical performance parameters related to muscle strength, muscle recovery and body composition?



PARAMETERS:

In an eight-week, randomized, prospective, placebo-controlled, double-blind study, 57 men (ages 18 to 50 years old) with little experience in resistance training were randomized into treatment (n=29) and placebo (n=28) groups. Subjects received 300 mg of ashwagandha root extract (as KSM-66 Ashwagandha) twice daily or a starch placebo. Following baseline measurements, subjects underwent resistance training for eight weeks and were measured at study's end. Primary efficacy of muscle strength was evaluated using the 1-RM load for the bench press and leg extension exercises; secondary efficacy of muscle recovery was evaluated using serum muscle creatine kinase (CK) levels.



OUTCOME:

Compared to the placebo subjects, **men receiving ashwagandha** had:

Significantly **greater increases** in



Muscle strength on bench press and leg extension exercise



Muscle size at the arms and chest

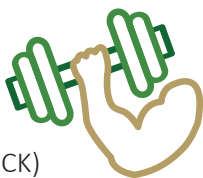


Testosterone levels (96.2 ng/dL compared to 18.0 ng/dL, p=0.004)

Significantly **greater decreases** in



Exercise-induced muscle damage (p=0.03 difference in stabilization of serum CK)



Body fat percentage



3.5% to **1.5%** compared to placebo

Further, there were **no adverse effects** reported by any participants.



Researchers concluded: “Ashwagandha supplementation is associated with significant increases in muscle mass and strength,” making it a useful adjunct to a resistance training program, as it may impact both muscle development and muscle recovery.



IMPACT:

Many athletes—both amateur and professional— are looking for ways to gain an edge in their performance. In fact, a recent study found the vast majority of competitive male athletes use dietary supplements and other ergogenic aids.¹ However, there are valid concerns about potential adulteration with banned substances, which is leading to research into potential natural performance enhancers that do not cross the line.² With ashwagandha's long history of safe and efficacious use, additional research could further support its potential as an ergogenic substance.

1. *J Strength Condition Res.* 2013;27(6):1609-17. DOI: 10.1519/JSC.0b013e318271272a
2. Food & Nutrition Magazine. May 5, 2014. Foodandnutrition.org

Source: Wankhede S et al. “Examining the effect of *Withania somnifera* supplementation on muscle strength and recovery: a randomized controlled trial.” *JISSN.* 2015;12:43. DOI: 10.1186/s12970-015-0104-9.