

# Ashwagandha for Cardiorespiratory Endurance



## THEORY:

Ashwagandha is a **known adaptogen**, valued for its ability to increase vitality, energy, endurance and stamina, suggesting it could enhance physical performance. The question is whether a high concentration root extract of ashwagandha could enhance cardiorespiratory endurance and improve quality of life (QOL) in healthy athletic adults.



## PARAMETERS:

A **prospective, double-blind**, randomized, placebo-controlled trial at Hyderabad Spine Clinics, Secunderabad, India. A total of 50 healthy adults aged between 20 and 45 years and normal body mass index (BMI) received 300 mg twice daily of ashwagandha (as KSM-66) or placebo for 12 weeks. Efficacy was evaluated by conducting a 20-minute Shuttle Run Test at baseline, week 8 and week 12, with a look at oxygen consumption at peak physical exertion ( $VO_2\text{max}$ ); and quality of life assessed by a self-reported World Health Organization-QOL questionnaire.



## OUTCOME:

Over the course of the study and at conclusion, in adults taking ashwagandha:

$VO_2\text{max}$  increased by **4.91%** ↑ at **eight weeks**, and by **5.67%** at **12 weeks**



**Quality of life (QOL)** measures were positively affected, with social relationships up

**9.46%** ↑

from baseline and subdomains physical health

↑ **7.6%** from baseline.



**Environmental impact** on QOL also increased significantly by the end of the study



**No changes** were seen in vital parameters such as **pulse rate, blood pressure or respiration at rest**



**All changes were statistically significant** compared to placebo.



**Researchers concluded:** “High-concentration full-spectrum Ashwagandha root extract improves an individual’s resistance toward stress and thereby improves self-assessed quality of life.”



## IMPACT:



As adults look to get more yield from their workouts, improving  $VO_2\text{max}$ —or the amount of oxygen the body can use during exercise—supports muscle efficiency and performance.<sup>1</sup> Further, quality of life measures are critical to ensuring exercise enhances both physical and psychological measures.<sup>2</sup> Ayurvedic formulas known as *Rasayana*—such as ashwagandha—have been used as a remedy for general weakness and to improve vitality and stamina; however, research was needed to prove clinical efficacy. The study results suggest ashwagandha (as KSM-66) enhances both cardiorespiratory endurance and quality of life in healthy, athletic adults.

1. Helgerud J et al. *Med Sci Sports Exerc.* 2001;33(11):1925-31.
2. Santos D, Ana Lucia P. *J Physical Edu Sport.* 2015;15(2).

Source: Choudhary B, Shetty A, Langade DG. “Efficacy of Ashwagandha (*Withania somnifera* [L.] Dunal) in improving cardiorespiratory endurance in healthy athletic adults.” *Ayu.* 2015;36:63-8. DOI: 10.4103/0974-8520.169002