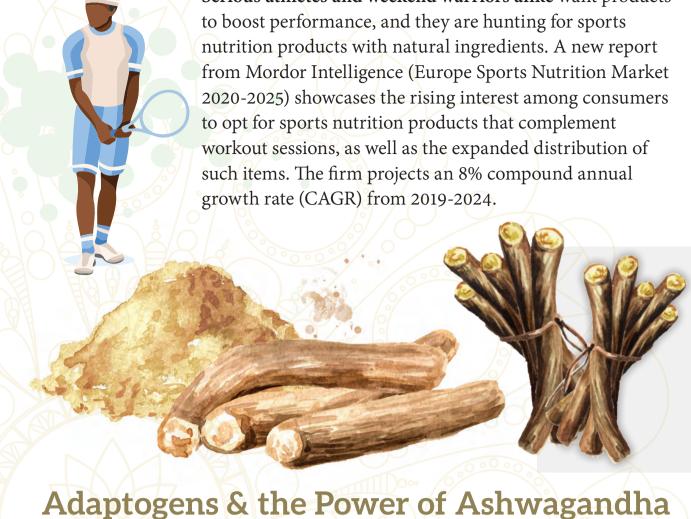


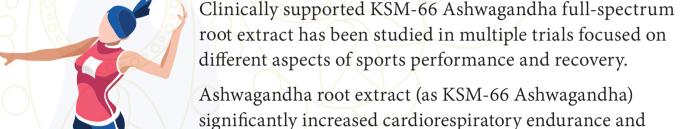
Targeting the expanding EU sports market Serious athletes and weekend warriors alike want products



These multi-tasking herbs help the body adjust to stress and achieve balance. Russian scientists began researching adaptogens in the early 1960s for their

potential to, among other things, empower Olympic athletes. A Russian toxicologist coined the term "adaptogen." [HerbalGram. 2011;90.] Ashwagandha (Withania somnifera) is a small woody shrub that grows in India and a few parts of the Mediterranean and Africa. One of the oldest known

adaptogens, its power lies in its roots. Ashwagandha is one of the more complex herbs with many phytochemical constituents in it, and is valued for its ability to increase vitality, energy, endurance and stamina, suggesting it can enhance physical performance. Ashwagandha for Physical Performance — **Tradition Meets Clinical Research**



improved VO2 max—an indication of the amount of oxygen

in physical health

general well-being scores.

the body can use during exercise—in a randomised,

placebo-controlled study. Healthy adults (n=50) consumed 300 mg of ashwagandha twice daily for 12 weeks, and were assessed on performance and quality of life (QOL) measures. £ 21.67 increase in VO2 max at 8 weeks and increase in QOL measures including social relationships and 14.7% increase 13.58 % increase at 12 weeks

[Ayu. 2015;36:63-8. DOI: 10.4103/0974-8520.169002] Similar results were reported in an 8-week prospective, randomised, double-blind, placebo-controlled 2019 study. Healthy adults (n=50) received a placebo or a 300 mg capsule of ashwagandha (as KSM-66) twice daily. Researchers assessed VO2 max, quality recovery scores and antioxidant levels; participants also completed

extract enhances the cardiorespiratory endurance

"The findings suggest that Ashwagandha root

and improves QOL in healthy athletic adults."

the Daily Analysis of Life Demands for Athletes (DALDA) questionnaire and Recovery-Stress Questionnaire for Athletes (RESTQ). p<0.0001 Significant improvement of 16.40% Significant improvement was also reported for DALDA and RESTQ was observed in VO2 max at 8 weeks.

> scores scores

performance parameters related to muscle strength, muscle recovery and body

prospective, double-blind, placebo-controlled clinical trial included healthy men (n=57) with little experience in resistance training receiving placebo or 300 mg

Supplementation improved muscle strength and size through resistance training by

increasing testosterone levels in the body by more than 15%, boosting strength by:

composition, while also increasing testosterone levels. One randomized,

RESTQ assessment yielded significant decreases in:

quality of life in healthy athletic adults." [Journal of Ethnopharmacology. 2021; 272:113929. DOI: 10.1016/j.jep.2021.113929]

General stress

scores

"Ashwagandha root extract can successfully

ashwagandha (KSM-66) twice per day for eight weeks.

a resistance training program."

[JISSN. 2015;12:43. DOI:10.1186/s12970-015-0104-9]

Fatigue

Ashwagandha may also function as an ergogenic aid, supporting physical

Lack of energy



Fitness/injury

related scores

in the upper body in the lower body

Significant decreases were reported in exercise-induced muscle damage (p=0.03) and body fat percentage (reduction of 3.5%).

strength and ... may be useful in conjunction with

Ashwagandha supplementation is associated

with significant increases in muscle mass and

week, randomised, double-blind, placebo-controlled study included 80 subjects—40 men and 40 women—equally divided into placebo and supplementation groups. The study assessed the impact of 300 mg ashwagandha (KSM-66) twice daily on muscle strength, recovery and size; cardiorespiratory endurance; body fat; immune and inflammatory markers; endurance; and testosterone levels. Ashwagandha supplementation Further, significant decreases produced significant increases (p<0.05) (p<0.05) were realized among men

and women for:

Body fat **1** percentage

Serum creatine kinase levels improving muscle recovery

Levels of inflammatory markers IL-6 and TNF-alpha

Researchers have extended their investigations into the ability of ashwagandha to positive affect muscle strength and recovery in both men and women. An eight-

and CD8 immune cells Notably, ashwagandha's positive function as an adaptogen was seen in the significant increases in levels of serum total and serum free testosterone in male participants receiving ashwagandha, but not in female participants in the treatment group.

for male and female participants in:

press and leg extension

Counts of CD3, CD4

[2020 Unpublished data under peer review]

Thigh, arm and

VO2 max levels

chest muscle size

Muscle strength for bench

"Results demonstrate a significant improvement in muscle strength, cardiorespiratory endurance,

The highest concentration, most The most clinically studied ashwagandha on the market bioavailable, full spectrum ashwagandha root extract on the market *Certified:*

KSM-66 Ashwagandha is:

muscle mass, body fat reduction, immunity and

overall quality of life for both the genders for

Ashwagandha supplementation group."



























