

Promotes healthy testosterone production in men

The Ultimate line is about improving lives, one body at a time, by correcting and maintaining metabolism and hormone balance as well as providing stress and immune support. Effective nutrient supplementation can often be the missing piece to optimal health. Our supplements are carefully formulated to provide the Ultimate in abundant energy, metabolism, health, and longevity.

Product summary

Ultimate Testosterone Boost is a synergistic formula specifically designed to address stress and support testosterone production. Each vegetarian capsule features 300 mg of KSM-66, a full-spectrum extract of ashwagandha, an adaptogenic herb traditionally used in Ayurvedic medicine. KSM-66 has been shown to cause significant improvement in testosterone levels as well as other areas related to male health and vitality. Aside from the energy and performance supporting effects of ashwagandha, Ultimate Testosterone Boost also contains the following male health-supporting nutrients: zinc, vitamin D3, B vitamins, chromium, and cordyceps.

Benefits

- Helps promote healthy testosterone production in men
- Ideal for men looking to support physical performance, energy levels, and vitality
- Helps improve athletic performance when combined with regular resistance training
- Helps increase resistance to stress/anxiety in people with a history of chronic stress
- Features essential nutrients for men's health, including zinc, vitamin D3, and B vitamin

Research

Testosterone production begins to decline in men after the age of 30, and while reduced testosterone is often dismissed as part of the normal aging process, this decline in testosterone can affect energy, performance, muscle mass and fat distribution, hair growth, and even emotional and cognitive well-being. (1) Ensuring a good intake of essential nutrients needed for testosterone production can help support male reproductive health, energy metabolism, and hormone health in men, whatever their age.

Zinc is an essential nutrient for protein metabolism, healing, and sexual function. Zinc is also important for the regulation of testosterone levels, with research showing that in older men with marginal zinc deficiency, daily zinc supplementation for six months helps increase serum testosterone. (2) Zinc also non-competitively inhibits 5-alphareductase activity, decreasing the conversion of testosterone to its less desirable metabolite, dihydrotestosterone, which is linked to male pattern baldness and prostate enlargement. (3)

Vitamin D3 is an essential nutrient needed for a range of physiological processes, including supporting bone and immune health. In one study, vitamin D3 was found to increase testosterone levels by 30% in overweight men. (4)

Ashwagandha is a plant in the nightshade family, traditionally used in Ayurvedic medicine. Its active constituents include alkaloids (isopelletierine, anaferine), steroidal lactones (withanolides, withaferins), and saponins. (5) Ashwagandha has demonstrated antioxidant and adaptogenic effects, as well as immunomodulatory effects, and has been associated with an increase in testosterone levels in men. (6,7,8)

Testosterone Boost is formulated with KSM-66 that offers the highest concentration full-spectrum ashwagandha root extract available and is one of the best researched ashwagandha extracts on the market, having demonstrated benefits for stress, and enhancement of energy, endurance, and sexual function in men.

One eight-week, randomized, double-blind, placebo-controlled trial looked at the effects of ashwagandha on men aged 18–50 years old with little experience in resistance training. The 57 men were randomly assigned to receive either a placebo or 300 mg of KSM-66 ashwagandha twice daily and both groups underwent resistance training for eight weeks. The ashwagandha group had significantly greater increases in testosterone level and muscle size and strength after eight weeks, compared to placebo. The men taking ashwagandha also had significantly greater reduction of exercise-induced muscle damage and body fat percentage, compared to placebo. (8)

Piperine is the active alkaloid constituent of black pepper and has been seen to support digestive function and enhance the availability of nutrients including zinc and chromium, which are needed for testosterone production (9). Piperine also has antioxidant activity, helping to protect against systemic oxidative damage, and may even support normal levels of serotonin, an important "feel-good" neurotransmitter. (9,10,11)



60 VEGETARIAN CAPSULES

TESTOSTERONE BOOST

Promotes healthy testosterone production in men

Chromium is an important mineral for blood glucose regulation, and low levels of zinc and chromium have been associated with low testosterone in people with type 2 diabetes. (12) Vitamins B6 and B12 are important for energy metabolism, nerve function, and cardiovascular and cognitive function, and can be depleted by stress, poor diet, and certain medications. (13,14)

3,3'-diindolylmethane (DIM) is a bioactive metabolite found in cruciferous vegetables (such as broccoli) that seem to support normal processes of detoxification, including the proper elimination of hormone metabolites. (15)

Cordyceps has demonstrated antioxidant and immunomodulatory effects and appears to support testosterone levels and athletic performance in men engaged in endurance sports. (16,17)

Ingredients

Each vegetarian capsule contains:

Vitamin D3 (cholecalciferol)	200 IU (5 mcg)
Vitamin B6 (pyridoxine hydrochloride,	
pyridoxal 5'-phosphate)	5 mg
Vitamin B12 (methylcobalamin)	60 mcg
Zinc (monomethionine)	7.5 mg
Chromium (picolinate)	100 mcg
3,3'-Diindolylmethane (DIM)	25 mg
KSM-66 Ashwagandha™ Extract	
(Withania somnifera) (5% withanolides) (root)	300 mg
Organic Cordyceps	
(Ophiocordyceps sinensis) (stroma)	195 mg
BioPerine® Black Pepper Extract (Piper nigrum)	_
(standardization 95% piperine) (fruit)	2.5 mg
	-

Non-medicinal ingredients: Vegetarian capsule (cellulose, purified water), microcrystalline cellulose, vegetable grade magnesium stearate (lubricant), silica.

Recommended adult dose: 1 capsule 2 times daily with food, a few hours before or after taking other medications, or as directed by a health care practitioner. Consult a health care practitioner for use beyond 12 weeks.

Caution: Consult a health care practitioner prior to use if you are taking any other medications or natural health products, as black pepper/piperine may alter their effectiveness. Consumption with alcohol, other drugs or natural health products with sedative properties is not recommended. Consult a health care practitioner prior to use if you have a kidney disorder and/or diabetes, if you have liver disorder or symptoms of low estrogen (such as joint pain, mood changes, changes in libido, hot flashes, night sweats, vaginal dryness, or irregular menstruations), or if you are attempting to conceive. Discontinue use and consult a health care practitioner if you develop liver-related symptoms (e.g., yellowing of the eyes and/or skin, dark urine, abdominal pain, jaundice) or symptoms of low estrogen. Consult a health care practitioner if symptoms persist or worsen, or if you have benign prostate hypertrophy and/or prostate cancer. Do not use if you are pregnant or breastfeeding. Keep out of reach of children.

This product does not contain artificial preservatives, colours, or sweeteners; no sugar, wheat, gluten, yeast, soy, egg, fish, shellfish, salt, tree nuts, or GMOs. Suitable for vegetarians.







References

- 1. Van den Beld, A.W., de Jong, F.H., Grobbee, D.E., et al. (2000). Measures of bioavailable serum testosterone and estradiol and their relationships with muscle strength, bone density, and body composition in elderly men. J Clin Endocrinol Metab, 85(9), 3276-82.
- 2. Prasad, A.S., Mantzoros, C.S., Beck, F.W., et al. (1996). Zinc status and serum testosterone levels of healthy adults. Nutrition, 12(5), 344-8.
- 3. Leake, A., Chisholm, G. D., Habib, F. K. (1984). The effect of zinc on the 5-alpha-reduction of testosterone by the hyperplastic human prostate gland. J Steroid Biochem, 20(2), 651-5.
- 4. Pilz, S., Frisch, S., Koertke, H., et al. (2011). Effect of vitamin D supplementation on testosterone levels in men. Horm Metab Res, 43(3), 223-5.
- 5. Bhattacharya, S.K., Satyan, K.S., Ghosal, S. (1997). Antioxidant activity of glycowithanolides from Withania somnifera. Indian J Exp Biol, 35, 236-9.
- 6. Narinderpal, K., Junaid, N., Raman, B. (2013). A review on pharmacological profile of Withania somnifera (Ashwagandha). Research and Reviews: Journal of Botanical Sciences, 2(4), 6-14.
- 7. Upton, R., ed. (2000). Ashwagandha root (Withania somnifera): analytical, quality control, and therapeutic monograph. Santa Cruz, CA: American Herbal Pharmacopoeia, 1-25.
- 8. Wankhede, S., Langade, D., Joshi, K., et al. (2015). Examining the effect of Withania somnifera supplementation on muscle strength and recovery: a randomized controlled trial. *J Int Soc Sports Nutr, 12*(1), 43.
- 9. Srinivasan, K. (2007). Black pepper and its pungent principle-piperine: a review of diverse physiological effects. Crit Rev Food Sci Nutr, 47(8), 735-48.
- 10. Meghwal, M., Goswami, T.K. (2013). Piper nigrum and piperine: an update. Phytother Res, 27(8), 1121-30.
- 11. Bahramsoltani, R., Farzaei, M.H., Farahani, et al. (2015). Phytochemical constituents as future antidepressants: a comprehensive review. Rev Neurosci, 26(6), 699-719.
- 12. Ubajaka, C.F., Meludu, S.C., Dioka, C.E., et al. (2015). Evaluation of male sex hormones and trace elements in male type 2 diabetic patients attending Nnamdi Azikiwe University Teaching Hospital Diabetic Clinics. Niger J Med, 24(2), 162-8.
- National Institutes of Health. Office of Dietary Supplements. Vitamin B6 Fact Sheet for Health Professionals. Accessed February 28, 2018. Retrieved from https://ods. od.nih.gov/factsheets/ VitaminB6-HealthProfessional/
 National Institutes of Health. Office of Dietary Supplements. Vitamin B12 Fact Sheet for Health Professionals. Accessed February 28, 2018. Retrieved from https://ods. od.nih.gov/factsheets/
- VitaminB12-HealthProfessional/

 15. Gee, J.R., Saltzstein, D.R., Messing, et al. (2016). Phase Ib placebo-controlled, tissue biomarker trial of diindolylmethane (BR-DIMNG) in patients with prostate cancer who are undergoing
- prostatectomy. Eur J Cancer Prev, 25(4), 312-20.
- 16. Rossi, P., Buonocore, D., Altobelli, E., et al. (2014). Improving training condition assessment in endurance cyclists: effects of ganoderma lucidum and ophiocordyceps sinensis dietary supplementation. Evid Based Complement Alternat Med, 2014:979613.
- 17. Yue, K., Ye, M., Zhou, Z., et al. (2013). The genus cordyceps: a chemical and pharmacological review. J Pharm Pharmacol, 65(4), 474-93.

