

Natural Boost

Applications

- Men's Wellness
- Healthy Aging
- Mood Support
- Immune Support



Introduction

NutraMedix Natural Boost is a comprehensive herbal formula designed to help maintain men's wellness and support healthy aging.¹ It is a proprietary blend of hydro-ethanol extracts from **epimedium leaf** (*Epimedium grandiflorum*), **tribulus fruit** (*Tribulus terrestris*), **L-arginine HCl**, **jatropha stem** (*Jatropha macrantha*), **muira puama bark** (*Ptychopetalum olacoides*), **maca root** (*Lepidium meyenii*), **ginkgo leaf** (*Ginkgo biloba*), **eurycoma root** (*Eurycoma longifolia*), **eustephia bark** (*Eustephia coccinea*), and **saffron pistil** (*Crocus sativus*).

Epimedium leaf (*E. grandiflorum*) belongs to the Berberidaceae family and includes flavonoids, polysaccharides, lignans, phenol glycosides, and sesquiterpenes, among others.^{1,2} In traditional Chinese health practices, related *Epimedium* spp. known collectively as *yin yang huo* are used to support kidney yang, which encompasses healthy aging.¹ Today, this support is attributed to the constituent flavonoids and polysaccharides.² Icarin, one of its flavonoids, may help maintain phosphodiesterase 5 (PDE-5) levels and testosterone levels already within the normal range.³

Tribulus fruit (*T. terrestris*), also known as puncture vine, belongs to the Zygophyllaceae family.⁴ It contains steroidal saponins such as spirostanol and furostanol; flavonoids such as quercetin and kaempferol; alkaloids such as tribulusamide

C and tribulusterine; tannins; terpenoids; and polyphenols; among others.^{5,6}

Tribulus fruit may help maintain normal fertility by supporting the central nervous system and the anterior pituitary gland, as well as maintaining gonadal hormones, their receptors, and spermatogenesis, already within the normal range.⁷ It has been used for centuries in both Chinese traditional health practices, where it is known as *ci ji li*, and in traditional Ayurvedic health practices, where it is known as *gokshura*.^{8,5}

L-arginine HCl is an essential amino acid needed for protein synthesis, specifically for nitric oxide synthase (NOS).^{9,10}

Jatropha stem (*J. macrantha*) belongs to the Euphorbiaceae family, and is also known as huanarpo macho.^{11,12} It has been used in traditional Peruvian health practices for both men's and women's wellness.¹³ Its contents include flavonoids, phenolic acids, lignans, coumarins, and terpenes, among others.¹²

Muira Puama bark (*P. olacoides*) belongs to the Olacaceae family and is native to the Amazon region, where it is used in traditional health practices to support healthy aging, maintain brain health, and support healthy stress management.¹⁴ This support is attributed to its alkaloids,¹⁵ including magnoflorine and menispermene; it also includes the triterpenoid lupeol.¹⁶ In traditional use, it is used as an adaptogen to support mental, physical, and sexual wellness regardless of age.¹⁷

Maca root (*L. meyenii*) belongs to the Brassicaceae family and is native to the Peruvian Andes.^{13,18} It is sometimes called Peruvian ginseng and may support healthy aging,^{18,19} attributed to the constituent macamides and glucosinolates, though it is botanically unrelated to true ginseng.¹⁹ Maca root has been used traditionally as an adaptogen to support healthy sexual function and maintain healthy fertility.¹³

Ginkgo leaf (*G. biloba*) belongs to the Ginkgoaceae family and contains flavonoids, terpenoids, and organic acids. It has been used in traditional Chinese health practices, where it is known as *bai guo*, since the 16th century.²⁰

Eurycoma root (*E. longifolia*) belongs to the Simaroubaceae family and its primary constituents include ellagic acid, quercetin, and rutin, as well as quassinoids such as eurycomanone and alkaloids.^{21,22} It has been used in the traditional health practices of Southeast Asian countries to support sexual wellness and healthy stress management.²³

Eustephia bark (*E. coccinea*) belongs to the Amaryllidaceae family and is used in the traditional health practices of Peru.²⁴

Saffron pistil (*C. sativus*) belongs to the Iridaceae family and its main constituents include crocin, picrocrocin and safranal.²⁵ It is used in traditional health practices as well as cooking.²⁶

NutraMedix Natural Boost is made at our U.S. manufacturing facility using a specialized proprietary extraction process that optimizes the constituents of the herbs in their original, unprocessed state to obtain broad-spectrum concentration. Because NutraMedix's extracts are made in our own facility, we control all aspects of quality, including stringent ID testing, microbial testing, and heavy-metal testing. NutraMedix rigorously follows current good manufacturing practices (cGMP), as do our suppliers.

Men's Wellness

Healthy Sexual Function

Epimedium leaf (*E. grandiflorum*) contains icariin, a component that has been shown in rat studies to support healthy sexual function through maintaining endothelial nitric oxide synthetase (eNOS) already within the normal range.²⁷

According to in vitro studies, it may also help maintain levels of PDE-5 already within the normal range.²⁸

Tribulus fruit (*T. terrestris*) may help support healthy sexual function, as seen in a 12-week randomized controlled trial.²⁹ The mechanism is thought to be maintenance of nitric oxide synthase (eNOS) already within the normal range and corresponding effects on the corpus cavernosum epithelium.³⁰

L-arginine is an amino acid used in protein synthesis that may help maintain levels of nitric oxide (NO) already within the normal range, supporting normal sexual function.³¹ In two randomized controlled trials with over 100 participants each, L-arginine supplementation helped to maintain healthy sexual function, compared to placebo.^{32,33}

Jatropha stem (*J. macrantha*) may help maintain nitric oxide already within the normal range and support normal sexual function, as seen in rat studies.¹²

Muir Puama bark, in a combination formula taken twice daily for three months, helped support healthy sexual function, according to a standardized scale.³⁴

Eurycoma root (*E. longifolia*) may help support healthy sexual function. In a randomized controlled trial, 45 healthy older men were randomly assigned to one of four groups: control + placebo, control + eurycoma root, exercise + placebo, or exercise + eurycoma root, once daily for six months. While all of the intervention groups experienced support, the exercise + eurycoma root group experienced the best support in maintaining testosterone levels already within the normal range and supporting healthy sexual function.³⁵ Eurycoma root may help maintain PDE-5 enzyme levels as well as aromatase-mediated estrogen levels already within the normal range.^{21,23,4}

Saffron pistil (*C. sativus*) may help maintain normal sexual function, according to a four-week randomized controlled trial with 36 men.³⁶ A meta-analysis of 6 trials found similar evidence.³⁷

Fertility Support

Epimedium leaf (*E. grandiflorum*) may help maintain an epididymal sperm count already within the normal range, compared to control, as found in rat studies.³⁸

Tribulus fruit (*T. terrestris*) may help support healthy male fertility through maintaining spermatogenesis already within the normal range.⁶ In a systematic review of seven human tribulus studies, six studies found tribulus fruit to support normal fertility, helping maintain sperm count, motility, and morphology already within the normal range.³⁹

Maca root (*L. meyenii*) may help maintain sperm concentration already within the normal range and support normal sperm motility, according to a systematic review and meta-analysis of five randomized, controlled trials.⁴⁰ A very small clinical study with nine healthy men taking maca root for four months found that maca helped maintain normal sperm count, sperm motility, and seminal volume, already within the normal range,⁴¹ though a larger double-blind placebo-controlled study with 69 men found evidence for only sperm concentration support.⁴²

Eurycoma root (*E. longifolia*), in a meta-analysis of two studies with a total of 139 participants, was found to support healthy sexual function in some men, though not all.⁴³ The quassinoid eurycomanone may maintain healthy sperm quality already within the normal range.⁴

Hormonal Support

Epimedium leaf (*E. grandiflorum*) may help maintain normal testosterone levels already within the normal range, as found in rat studies.³⁸ While a randomized, single-blind placebo-controlled study showed evidence that tribulus fruit supplementation for six weeks helped maintain testosterone levels already within the normal range,⁴⁴ the evidence is mixed.^{45,46}

L-arginine supplementation, according to a randomized controlled trial with 108 male participants, may help maintain testosterone levels already within the normal range.³²

Jatropha stem (*J. macrantha*) combined with maca root (*L. meyenii*), according to a study with mice, may help maintain testosterone levels already within the normal range, attributed to the component saponins; human studies are needed.¹³

Eurycoma root (*E. longifolia*), according to a meta-analysis of nine studies, five of which were randomized, controlled trials, may help maintain testosterone levels already within the normal

range.⁴⁷ In a randomized, controlled trial, 32 men were randomly assigned to eurycoma root or a placebo for two weeks. Compared to the placebo, the eurycoma root group experienced significant support for maintaining testosterone levels already within the normal range, though without evidence of support for maintaining luteinizing hormone (LH), follicle-stimulating hormone (FSH), or sex hormone binding globulin (SHBG) already within the normal range.⁴⁸

Healthy Aging

Cardiovascular Support

Tribulus fruit (*T. terrestris*) may help maintain angiotensin-converting enzyme (ACE) already within the normal range,⁴⁹ as well as healthy blood pressure already within the normal range.⁸

L-arginine may be converted to nitric oxide, supporting vasodilation and helping maintain normal blood flow.³¹ It may also help maintain healthy systolic and diastolic blood pressure already within the normal range, according to a review of meta-analyses.⁹ **Ginkgo leaf** (*G. biloba*) may help support cardiovascular health by maintaining insulin sensitivity and a healthy insulin response, already within the normal range.⁵⁰

Saffron pistil (*C. sativus*), according to a meta-analysis of ten studies with 622 participants, may help maintain diastolic blood pressure already within the normal range.⁵¹ It may also, according to a meta-analysis of 9 studies with 595 participants, help maintain waist circumference and fasting blood glucose levels already within the normal range.⁵² Another meta-analysis of 25 randomized, controlled trials also found that saffron pistil may help maintain fasting blood glucose already within the normal range, though the decrease in waist circumference was non-significant.⁵³

Cognitive Support

Muira Puama bark (*P. olacoides*), according to mouse studies, may support memory and cognition by maintaining acetylcholinesterase (AChE) levels already within the normal range, though human studies are needed.^{14,54} Mouse studies have also shown that muira puama bark ethanol extract may help maintain levels of A-beta already within the normal range.⁵⁴

Ginkgo leaf (*G. biloba*), according to one randomized, controlled trial, may help with neurocognitive support by maintaining brain-

derived neurotrophic factor (BDNF) levels already within the normal range.⁵⁵ Another study found that ginkgo may help maintain cerebral blood flow already within the normal range.⁵⁶

Bone Support

Eurycoma root (*E. longifolia*) may help support healthy bone density, maintaining bone calcium levels already within the normal range during healthy aging.²³ The constituent eurypeptides may help maintain DHEA already within the normal range, which may help maintain sex hormones such as testosterone already within the normal range.²³

Other Support

Mood and Sleep Support

Saffron pistil (*C. sativus*), according to a meta-analysis of 9 randomized trials, may help maintain a healthy mood.⁵⁷ According to a meta-analysis of 21 randomized trials, saffron pistil may help maintain both mood and also sleep already within the normal range.⁵⁸ Other meta-analyses suggest that saffron pistil may help support healthy sleep duration and normal sleep quality.^{59,60}

Immune Support

Eurycoma root (*E. longifolia*), according to a four-week randomized, controlled trial with 126 middle-aged adults, may help maintain total, naïve, and CD4⁺ T cell numbers already within the normal range.⁶¹

Safety and Cautions

Epimedium leaf (*E. grandiflorum*) is generally well tolerated,⁶² and animal studies have not shown toxicity.² Side effects may include dizziness, dry mouth, or thirst.⁶² Theoretically, it may increase the risk of bleeding when taken with anticoagulant or antiplatelet medications.⁶²

Tribulus fruit (*T. terrestris*) is generally well tolerated.⁶³ Tribulus fruit should be avoided in pregnancy as it has affected fetal development in animal studies. It may increase the levels and adverse effects of pharmaceutical lithium when taken concurrently.⁶³

L-arginine is generally well tolerated, though may cause insomnia or gastrointestinal effects. While there are no known direct interactions with

drugs, theoretically, L-arginine may have additive effects with antihypertensives, anticoagulants, antidiuretics, testosterone, and sildenafil.¹⁰

Jatropha stem (*J. macrantha*) has a long history of use in traditional Peruvian health practices and is generally well tolerated.¹² There are no currently known interactions with pharmaceuticals.

Muir Puama bark (*P. olacoides*) is generally well tolerated. In one mouse study, it had additive effects with diazepam.⁶⁴ While there are no known adverse effects or drug interactions in humans,¹⁶ it is worth noting that molecular docking studies have shown that eight compounds in muir puama bark may bind to estrogen receptors, resulting in selective estrogen receptor modulation⁶⁵ and caution may be warranted in those with hormone-sensitive conditions.

Maca root (*L. meyenii*) is generally well tolerated and has been used for centuries to support sexual function. No adverse events have been reported in clinical trials,^{19,66} and there are no known interactions in humans,⁶⁶ though it appeared to have synergistic effects with tadalafil in a rat study.¹⁹

Ginkgo leaf (*G. biloba*) is generally well tolerated, though it may cause dizziness, headache, or gastrointestinal symptoms. It may decrease the effects of anticonvulsants and may increase the effects of anticoagulant or antiplatelet drugs, or of warfarin.⁶⁷

Eurycoma root (*E. longifolia*) is generally well tolerated and shows little inhibition of CYP isoenzymes, making CYP-related interactions unlikely.²³ Due to potential effects on testosterone levels, it should be avoided in those with prostate cancer.²³ It may reduce the levels and effectiveness of propranolol.^{23,68}

Eustephia bark (*E. coccinea*) is generally well tolerated and showed low toxicity in both water and ethanol extracts, though more information is needed.²⁴

Saffron pistil (*C. sativus*) is generally well tolerated, though may cause gastrointestinal effects. There are no specifically known drug interactions. Theoretically, it may have additive effects with antidiabetics, antihypertensives, and antidepressants.²⁶

Safety is not documented in breastfeeding or pregnant women, or in children under age 3, due to insufficient safety research.

*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to treat, cure, or prevent any diseases.

References

- ¹Tan, H.L., Chan, K.G., et al. (2016). *Frontiers in Pharmacology*, 7, 191.
- ²Ma, H., He, X., et al. (2011). *Journal of Ethnopharmacology*, 134(3), 519–541.
- ³Niu, Y., Lin, G., et al. (2022). *Translational Andrology and Urology*, 11(7), 1007–1022.
- ⁴Abarikwu, S.O., Onuah, C.L., et al. (2020). *Andrologia*, 52(3), e13509.
- ⁵Ștefănescu, R., Tero-Vescan, A., et al. (2020). *Biomolecules*, 10(5), 752.
- ⁶Zhu, W., Du, Y., et al. (2017). *Chemistry Central Journal*, 11(1), 60.
- ⁷Sirotkin, A.V., & Kolesárová, A. (2021). *Physiological Research*, 70(Suppl4), S657–S667.
- ⁸Chhatre, S., Nesari, T., et al. (2014). *Pharmacognosy Reviews*, 8(15), 45–51.
- ⁹McRae, M.P. (2016). *Journal of Chiropractic Medicine*, 15(3), 184–189.
- ¹⁰Natural Medicines. (2021). L-Arginine [monograph]. <http://naturalmedicines.therapeuticresearch.com>
- ¹¹Apaza T.L., Antognoni, F., et al. (2021). *Natural Product Research*, 35(24), 5843–5847.
- ¹²Tinco-Jayo, J.A., Aguilar-Felices, E.J., et al. (2021). *Molecules*, 27(1), 115.
- ¹³Oshima, M., Gu, Y., et al. (2003). *The Journal of Veterinary Medical Science*, 65(10), 1145–1146.
- ¹⁴da Silva, A.L., Silva Martins, B.D., et al. (2009). *Psychopharmacology*, 202(1–3), 165–172.
- ¹⁵Tian, X., Guo, S., et al. (2018). *Natural Product Research*, 32(3), 354–357.
- ¹⁶Natural Medicines. (2020). Muira Puama [monograph]. <http://naturalmedicines.therapeuticresearch.com>
- ¹⁷Piato, A.L., Rizon, L.P., et al. (2009). *Phytotherapy Research*, 23(4), 519–524.
- ¹⁸Shin, B.C., Lee, M.S., et al. (2010). *BMC Complementary and Alternative Medicine*, 10, 44.
- ¹⁹Beharry, S., & Heinrich, M. (2018). *Journal of Ethnopharmacology*, 211, 126–170.
- ²⁰Eastland Herb. (2018). Eastland Herb - Chinese Herbal Medicine: Materia medica and formula & strategies (4.3). [mobile app]. <https://apps.apple.com/us/app/eastland-herb-chinese-medicine/id737380894>.
- ²¹Ganapathy, A., Hari Priya, V.M., et al. (2021). *Journal of Ethnopharmacology*, 267, 113536.
- ²²George, A., & Henkel, R. (2014). *Andrologia*, 46(7), 708–721.
- ²³Rehman, S.U., Choe, K., et al. (2016). *Molecules*, 21(3), 331.
- ²⁴Bussmann, R.W., & Glenn, A. (2010). *Journal of Ethnobiology and Ethnomedicine*, 6, 30.
- ²⁵Khazdair, M.R., Boskabady, M.H., et al. (2015). *Avicenna Journal of Phyto-medicine*, 5(5), 376–391.
- ²⁶Natural Medicines. (2022). Saffron [monograph]. <http://naturalmedicines.therapeuticresearch.com>
- ²⁷Liu, Q.W., Yang, Z.H., et al. (2021). *Andrology*, 9(1), 342–351.
- ²⁸Chau, Y., Li, F.S., et al. (2019). *PLoS One*, 14(9), e0222803.
- ²⁹Kamenov, Z., Fileva, S., et al. (2017). *Maturitas*, 99, 20–26.
- ³⁰Do, J., Choi, S., et al. (2013). *Korean Journal of Urology*, 54, 183–188.
- ³¹Maccallini, C., & Amoroso, R. (2022). *Molecules*, 27(20), 6820.
- ³²El Taieb, M., Hegazy, E., et al. (2019). *The Journal of Sexual Medicine*, 16(9), 1390–1397.
- ³³Abu El-Hamd, M., & Hegazy, E.M. (2020). *Andrologia*, 52(7), e13640.
- ³⁴Nguyen, S., Rajfer, J., et al. (2018). *Translational Andrology and Urology*, 7(2), 266–273.
- ³⁵Leitão, A.E., Vieira, M., et al. (2021). *Maturitas*, 145, 78–85.
- ³⁶Modabbernia, A., Sohrabi, H., et al. (2012). *Psychopharmacology*, 223(4), 381–388.
- ³⁷Maleki-Saghooni, N., Mirzaei, K., et al. (2018). *Avicenna Journal of Phytomedicine*, 8(3), 198–209.
- ³⁸Chen, M., Hao, J., et al. (2014). *Molecules*, 19(7), 9502–9514.
- ³⁹Sanagoo, S., Sadeghzadeh Oskouei, B., et al. (2019). *Complementary Therapies in Medicine*, 42, 95–103.
- ⁴⁰Lee, H.W., Lee, M.S., et al. (2022). *Frontiers in Pharmacology*, 13, 934740.
- ⁴¹Gonzales, G.F., Cordova, A., et al. (2001). *Asian Journal of Andrology*, 3(4), 301–303.
- ⁴²Alcalde, A.M., & Rabasa, J. (2020). *Andrologia*, 52(10), e13755.
- ⁴³Kotirum, S., Ismail, S.B., et al. (2015). *Complementary Therapies in Medicine*, 23(5), 693–698.
- ⁴⁴Fernández-Lázaro, D., Mielgo-Ayuso, J., et al. (2021). *Nutrients*, 13(11), 3969.
- ⁴⁵Santos, H.O., Howell, S., et al. (2019). *Journal of Ethnopharmacology*, 235, 392–405.
- ⁴⁶Kovac, J.R., Pan, M., et al. (2016). *American Journal of Men's Health*, 10(6), NP109–NP117.
- ⁴⁷Leisegang, K., Finelli, R., et al. (2022). *Medicina*, 58(8), 1047.
- ⁴⁸Chan, K.Q., Stewart, C., et al. (2021). *Andrologia*, 53(4), e14001.
- ⁴⁹Kamrani Rad, S.Z., Javadi, B., et al. (2019). *Avicenna Journal of Phytomedicine*, 9(4), 291–309.
- ⁵⁰Siegel, G., Ermilov, E., et al. (2014). *Atherosclerosis*, 237(2), 584–588.
- ⁵¹Pourmasoumi, M., Hadi, A., et al. (2019). *Pharmacological Research*, 139, 348–359.
- ⁵²Rahmani, J., Bazmi, E., et al. (2020). *Complementary Therapies in Medicine*, 49, 102298.
- ⁵³Tahmasbi, F., Araj-Khodaei, M., et al. (2022). *Phytotherapy Research*, 36(9), 3394–3414.
- ⁵⁴Figueiró, M., Ilha, J., et al. (2011). *Phytomedicine*, 18(4), 327–333.
- ⁵⁵Sadowska-Krępa, E., Kłapcińska, B., et al. (2017). *Nutrients*, 9(8), 803.
- ⁵⁶Mashayekh, A., Pham, D.L., et al. (2011). *Neuroradiology*, 53(3), 185–191.
- ⁵⁷Tóth, B., Hegyi, P., et al. (2019). *Planta Medica*, 85(1), 24–31.
- ⁵⁸Ghaderi, A., Asbaghi, O., et al. (2020). *Complementary Therapies in Medicine*, 48, 102250.
- ⁵⁹Lian, J., Zhong, Y., et al. (2022). *Sleep Medicine*, 92, 24–33.
- ⁶⁰Munirah, M.P., Norhayati, M.N., et al. (2022). *International Journal of Environmental Research and Public Health*, 19(18), 11658.
- ⁶¹George, A., Suzuki, N., et al. (2016). *Phytotherapy Research*, 30(4), 627–635.
- ⁶²Natural Medicines. (2021). Horny Goat Weed [monograph]. <http://naturalmedicines.therapeuticresearch.com>
- ⁶³Natural Medicines. (2022). Tribulus [monograph]. <http://naturalmedicines.therapeuticresearch.com>
- ⁶⁴Brunetti, P., Lo Faro, A.F., et al. (2020). *Pharmaceuticals*, 13(10), 309.
- ⁶⁵Powers, C.N., & Setzer, W.N. (2015). *In Silico Pharmacology*, 3, 4.
- ⁶⁶Natural Medicines. (2022). Maca [monograph]. <http://naturalmedicines.therapeuticresearch.com>
- ⁶⁷Natural Medicines. (2022). Ginkgo [monograph]. <http://naturalmedicines.therapeuticresearch.com>
- ⁶⁸Natural Medicines. (2022). Eurycoma Longifolia [monograph]. <http://naturalmedicines.therapeuticresearch.com>

NutraMedix.

KEEP OUT OF REACH OF CHILDREN

STORAGE: Keep tightly closed in a dry place at room temperature. (59–86°F or 15–30°C)

SHAKE WELL BEFORE EACH USE:
Take 30 drops twice daily. Can be taken under the tongue or in 2–4 oz. (60–120 mL) of water. Do not use if pregnant or nursing. Stop use if adverse reactions develop.

NutraMedix.
Jupiter, Florida 33458 USA
www.nutramedix.com
561-745-2917

NATURAL BOOST
FOR MEN

Dietary Supplement
2 oz. (60 mL)

Supplement Facts

Serving Size: 30 drops
Servings Per Container: 40

Amount Per Serving	% DV
Proprietary Blend	1.5mL*
Epimedium leaf extract, Tribulus fruit extract, L-Arginine HCl, <i>Jatropha macrantha</i> stem extract, Muira Puama bark extract, Maca root extract, Ginkgo leaf extract, <i>Eurycoma longifolia</i> root extract, <i>Eustaphia coccinea</i> bark extract, Saffron pistil extract.	

*Daily Value not established

Other ingredients: mineral water, ethanol (20–24%)

Lot # **V304865**

Exp. **7 28650 05808 9**