

DUOLIFE

Maca

Food supplement

DUOLIFE Maca is a food supplement **from the Pure Formula line** containing the maca root extract in a concentrated dose. It is enclosed in capsules made of HPMC, an organic cellulose derivative, with delayed release time.

Maca helps maintain optimal sexual functions and supports fertility in both women and men. Moreover, it helps alleviate the symptoms of menopause and premenstrual syndrome (PMS) in females. Maca root extract also supports cognitive functions, memory, and concentration. It also helps maintain emotional balance.



Simple, targeted composition



Product with comprehensible purpose



Convenient form of use



Naturally sourced ingredients

When to use DUOLIFE Maca?

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DUOLIFE Maca food supplement is intended for use as support for optimal body functions in the case of:

- ▶ people wishing to maintain optimal sexual functions;
- ▶ women complaining of problems associated with the premenstrual syndrome (PMS);
- ▶ active people and athletes;
- ▶ people wishing to support the functioning of muscles and performance during physical activity;
- ▶ wishing to maintain correct body weight;
- ▶ people suffering from concentration and memory problems;
- ▶ women during menopause, helping to alleviate its symptoms (mood swings, hot flashes);
- ▶ people wishing to support the functioning of the vascular system.

How does maca found in the DUOLIFE Maca food supplement work?

DUOLIFE Maca is a food supplement based on high-quality naturally sourced ingredients - maca root extract and acacia fibre.

Maca found in **DUOLIFE Maca** supports:

- ▶ sexual functions and fertility;
- ▶ proper memory functions;
- ▶ optimal cognitive processes;
- ▶ concentration;
- ▶ the process of muscle mass building;
- ▶ performance during physical activity;
- ▶ body weight control;
- ▶ antioxidative mechanisms;

- ▶ the reduction of inflammations in the body;
- ▶ functions of the cardiovascular system;
- ▶ the maintenance of emotional balance.

i **Instructions for use:** 2 capsules a day, with a meal. Do not exceed the recommended daily dose. The product should not be a substitute for a varied diet. A balanced diet and healthy lifestyle are essential for the proper functioning of the body.

i **It is beneficial to combine the DUOLIFE Maca food supplement with:**

DUOLIFE Day, Shape Code® Protein Shake, Shape Code® Slim Shake, DUOLIFE Collagen, DUOLIFE Collagen Powder, DUOLIFE My Mind, DUOLIFE Chlorofil, FIZZY EASY ENERGY COMPLEX, DUOLIFE Schisandra berry, DUOLIFE Ashwagandha, DUOLIFE Ginseng

Precautions

- ▶ Do not use if you are hypersensitive to any of the ingredients of the product.
- ▶ Do not use in children.
- ▶ Do not use in pregnant or breastfeeding women.
- ▶ If you have a chronic condition or are taking medication, consult your doctor before using the product.

i **Ingredients – content in a daily dose (2 capsules):** maca root (*Lepidium meyenii*) extract 10:1 (300 mg), acacia fibre. Coating ingredient: hydroxypropyl methylcellulose (HPMC).

Discover the ingredients of DUOLIFE Maca food supplement

Maca (*Lepidium meyenii*) root extract 10:1

Maca, also known as Peruvian ginseng, is a tuberous plant grown in the Andean plateaus of Peru. Health promoting effects of the maca root are determined by the presence of biologically active substances: polyphenols (flavonoids, anthocyanins), tannins, saponins, prostaglandins, alkaloids, sterols (β -sitosterol, campesterol, stigmasterol) and amides of polyunsaturated fatty acids (macaens and macamides). Maca root is also an excellent source of protein, fibre and many vitamins and minerals, including vitamin C, copper and iron. In addition, it also contains more than 20 amino acids – including all eight essential amino acids (leucine, isoleucine, valine, lysine, threonine, methionine, phenylalanine and tryptophan).

Maca is a plant with **adaptogenic properties**¹. The term “adaptogen” refers to a substance that enables the body to respond to physical, chemical and biological stressors by increasing the body’s non-specific response to a particular type of stressor. This means that an adaptogen increases the body’s ability to adapt to changing environmental conditions.

Numerous studies conducted to date indicate the maca root as a raw ingredient that **supports sexual functions** in both women and men. It was also noted that it contributes to **boosting libido in females**, especially those post menopause². Maca also helps **maintain the balance of female sex hormones** – primarily oestrogen. This hormone is responsible for balancing the female reproductive system. Hormonal imbalance may be a cause underlying numerous troublesome symptoms, such as flatulence, acne, irregular menstruation, mood swings or weight gain. Too high or too low oestrogen level might also cause ovulation disorders and thus have significant **impact on fertility**³⁻⁵. Moreover, by maintaining optimal sex hormone level, maca helps perimenopausal women. Supplementation with maca root may help **alleviate the symptoms accompanying menopause** such as night sweats, hot flushes, mood swings⁶⁻⁸. Men are also eager to reach for maca root extract. Studies confirm that this raw ingredient may help maintain **optimal sexual functions, boost libido and support fertility, also in men**. Preclinical and clinical trials suggest the raw ingredient boosts sperm parameters – sperm count and motility⁹⁻¹¹. It is believed that the alkaloids found in the maca root, as well as wholesome protein rich in essential aminoacids, including arginin, have the greatest impact on this. Athletes can also reach for maca root extract. Maca root is rich in sterols and aminoacids that can **help build muscle**, while high protein content allows to replenish the body’s energy supply which supports **the maintenance of the body’s energy and stamina** during physical exercise. Polysaccharides found in the maca root support the fight against generalised hypoxia and

help remove metabolic waste produced by the body. Due to its properties boosting energy and stamina maca has become a popular raw ingredients in the diet of athletes (particularly among bodybuilders). It can also be helpful during **the process of reducing adipose tissue** and general body weight in those participating in sports or on a weight loss diet^{12,13}.

Maca root is also considered a natural medium helping neutralise harmful free radicals, thus boosting protection against cell damage. Maca owes its antioxidative properties to antioxidants found in its root, among others phenols, glucosinolates, alkalamides and polysaccharides^{14,15}. These substances also help delay brain ageing, supporting, as a consequence, **memory, concentration, cognitive functions, and helps protect neurons**¹⁶⁻¹⁸. Maca root, fighting the effects of free radicals, contributes also to **the reduction of inflammation in the body**. Finally, maca root extract may also support **the health of the skeletal system**, maintaining the optimal level of bone density⁶ and the **circulatory system**, by helping lower blood pressure⁸.

The DUOLIFE Maca food supplement also contains acacia fibre, which synergistically supports the action of the main ingredient - maca root extract.

Acacia fibre

Acacia fibre found in the DUOLIFE Maca food supplement is a natural bulking agent with valuable properties. Acacia fibre is sourced from acacia trees growing in Africa; it belongs to the soluble fibre fraction and supports the health-oriented effect of kudzu. Moreover, fibre belongs to the so-called prebiotics that stimulate the development of natural intestinal microflora; it fosters optimal functions of the gastrointestinal tract, supports intestinal peristalsis by helping ensure regular bowel movements and prevent flatulence and chronic constipation¹⁹, as well as supporting body weight management. It also helps to maintain optimal blood cholesterol levels²⁰.

What makes DUOLIFE Maca so special?

- ▶ **Simple, targeted composition** – based on the main active ingredient **with known properties and a concentrated dose**.
- ▶ **Product with comprehensible purpose** – featuring health statements on the label, which makes it easier to recommend the product.
- ▶ **Naturally sourced ingredients**.
- ▶ **No artificial fillers, preservatives or unnecessary additives**.
- ▶ **Convenient form of use** – capsules **made of organic cellulose derivative (HPMC; hypromellose; hydroxypropyl methylcellulose)** with delayed release time, supporting the protection of active ingredients against the acidic pH of the gastric juice.
- ▶ **Uniformity of the Pure Formula line – easy recommendation** – 1 packaging contains 60 capsules for 1 month of use (2 capsules a day).
- ▶ The supplement can be easily adjusted to the individual needs of the body.
- ▶ The product is **LACTOSE-FREE** and **GMO free**.
- ▶ The product is **GLUTEN-FREE** – suitable for people with gluten intolerance.
- ▶ The product is **suitable for vegans and vegetarians**.
- ▶ Multilingual label.

i Reference list for DUOLIFE Maca formulation can be found in the separate sheet of the binder.

References

1. Todorova, V., Ivanov, K., & Ivanova, S. (2021). Comparison between the biological active compounds in plants with adaptogenic properties (*Rhaponticum carthamoides*, *Lepidium meyenii*, *Eleutherococcus senticosus* and *Panax ginseng*). *Plants*, 11(1), 64.
- Machowicz, P., Ręka, G., Maksymowicz, M., Piecewicz-Szczęsna, H., & Smoleń, A. (2021). Effect of spirulina supplementation on systolic and diastolic blood pressure: systematic review and meta-analysis of randomized controlled trials. *Nutrients*, 13(9), 3054.
2. Brooks, N. A., Wilcox, G., Walker, K. Z., Ashton, J. F., Cox, M. B., & Stojanovska, L. (2008). Beneficial effects of *Lepidium meyenii* (Maca) on psychological symptoms and measures of sexual dysfunction in postmenopausal women are not related to estrogen or androgen content. *Menopause*, 15(6), 1157-1162.
3. Sánchez, J. M. L., Serrano, Z. A., Durán, J. A., Morales, H. S. G., & Álvarez, P. B. M. (2017). Peruvian maca and possible impact on fertility. *J. Nutr. Health Food Eng*, 6(5), 00217.
4. Shin, B. C., Lee, M. S., Yang, E. J., Lim, H. S., & Ernst, E. (2010). Maca (*L. meyenii*) for improving sexual function: a systematic review. *BMC complementary and alternative medicine*, 10, 1-6.
5. Dording, C. M., Schettler, P. J., Dalton, E. D., Parkin, S. R., Walker, R. S., Fehling, K. B., ... & Mischoulon, D. (2015). A double-blind placebo-controlled trial of maca root as treatment for antidepressant-induced sexual dysfunction in women. *Evidence-Based Complementary and Alternative Medicine*, 2015.
6. Meissner, H. O., Mscisz, A., Reich-Bilinska, H., Mrozikiewicz, P., Bobkiewicz-Kozłowska, T., Kedzia, B., ... & Barchia, I. (2006). Hormone-Balancing Effect of Pre-Gelatinized Organic Maca (*Lepidium peruvianum* Chacon):(III) Clinical responses of early-postmenopausal women to Maca in double blind, randomized, Placebo-controlled, crossover configuration, outpatient study. *International journal of biomedical science: IJBS*, 2(4), 375.
7. Johnson, A., Roberts, L., & Elkins, G. (2019). Complementary and alternative medicine for menopause. *Journal of evidence-based integrative medicine*, 24, 2515690X19829380.
8. Stojanovska, L., Law, C., Lai, B., Chung, T., Nelson, K., Day, S., ... & Haines, C. (2015). Maca reduces blood pressure and depression, in a pilot study in postmenopausal women. *Climacteric*, 18(1), 69-78.
9. Gonzales, G. F., Cordova, A., Vega, K., Chung, A., Villena, A., Góñez, C., & Castillo, S. (2002). Effect of *Lepidium meyenii* (MACA) on sexual desire and its absent relationship with serum testosterone levels in adult healthy men. *andrologia*, 34(6), 367-372.
10. Lee, M. S., Lee, H. W., You, S., & Ha, K. T. (2016). The use of maca (*Lepidium meyenii*) to improve semen quality: a systematic review. *Maturitas*, 92, 64-69.
11. Melnikovova, I., Fait, T., Kolarova, M., Fernandez, E. C., & Milella, L. (2015). Effect of *Lepidium meyenii* Walp. on semen parameters and serum hormone levels in healthy adult men: a double-blind, randomized, placebo-controlled pilot study. *Evidence-Based Complementary and Alternative Medicine*, 2015.
12. Stone, M., Ibarra, A., Roller, M., Zangara, A., & Stevenson, E. (2009). A pilot investigation into the effect of maca supplementation on physical activity and sexual desire in sportsmen. *Journal of ethnopharmacology*, 126(3), 574-576.
13. Jiannine, L. M., & Antonio, J. (2019). The effects of *Lepidium meyenii* on grip strength, fatigue, and sexual behavior. *Journal of Exercise and Nutrition*, 2(1).
14. Sandoval, M., Okuhama, N. N., Angeles, F. M., Melchor, V. V., Condezo, L. A., Lao, J., & Miller, M. J. (2002). Antioxidant activity of the cruciferous vegetable Maca (*Lepidium meyenii*). *Food chemistry*, 79(2), 207-213.
15. Korkmaz, S. (2018). Antioxidants in maca (*Lepidium meyenii*) as a supplement in nutrition. *Antioxidants in Foods and its Applications*, 138-154.
16. Jivad, N., & Rabiei, Z. (2014). A review study on medicinal plants used in the treatment of learning and memory impairments. *Asian Pacific Journal of Tropical Biomedicine*, 4(10), 780-789.
17. Guo, S. S., Gao, X. F., Gu, Y. R., Wan, Z. X., Lu, A., Qin, Z. H., & Luo, L. (2016). Preservation of cognitive function by *Lepidium meyenii* (maca) is associated with improvement of mitochondrial activity and upregulation of autophagy-related proteins in middle-aged mouse cortex. *Evidence-based complementary and alternative medicine*, 2016.
18. Pino Figueroa, A., Nguyen, D., & Maher, T. J. (2010). Neuroprotective effects of *Lepidium meyenii* (Maca). *Annals of the New York Academy of Sciences*, 1199(1), 77-85.
19. Min, Y. W., Park, S. U., Jang, Y. S., Kim, Y. H., Rhee, P. L., Ko, S. H., ... & Chang, D. K. (2012). Effect of composite yogurt enriched with acacia fiber and *Bifidobacterium lactis*. *World Journal of Gastroenterology: WJG*, 18(33), 4563.
20. Jensen, C. D., Spiller, G. A., Gates, J. E., Miller, A. F., & Whittam, J. H. (1993). The effect of acacia gum and a water-soluble dietary fiber mixture on blood lipids in humans. *Journal of the American College of Nutrition*, 12(2), 147-154.