☆ EndoAxis

Formula 10

A robust blend of herbs and minerals to support androgen balance.

AT A GLANCE

Elevated testosterone in the presence of low estrogen suggests an imbalance of aromatization, which can be the result of inflammation, insulin resistance, thyroid disorders, medications and most commonly in the classic presentation of PCOS.

Estrogen is required for follicular development and egg maturation and supports endometrial health, bone health, brain health and even cardiovascular health.

Our formulation goals focus on providing a novel blend of herbs, nutrients and amino acids that support ovarian health and follicular development, optimize enzymatic expression of key androgen dominant-related genes, and target the primary routes of hormone detox to regulate hormone activity.

Meet Harmonize

Blended with female hormone balance in mind, these products work to harmonize and support healthy hormone levels.





KEY BENEFITS



Nutritive herbs to support ovulatory health and follicular development



Targeting SRD5A genes (5a-reductase) to optimize hormone balance



A harmonizing blend of herbs and minerals designed to support conversion of testosterone into estrogen via CYP19A1

FORMULA ANALYSIS

Glycyrrhiza glabra

Glycyrhiza glabra (licorice root) is well-known for its adaptogenic qualities. Lesser known is the role Licorice can play in enhancing CYP19A1 activity[1], reducing 5a-reductase response, and acting as a phytoestrogen to support ovarian health and follicular development[2], making it a primary herb used in the treatment of PCOS and other androgen-dominate conditions. The active constituents of licorice include glycyrrhizic acid and glycyrrhetinic acid, which have demonstrated various pharmacological properties, including anti-inflammatory, anti-oxidative, and antiandrogenic effects, as well as a role in improving insulin sensitivity, likely through enhancing glucose uptake and inhibiting hepatic gluconeogenesis [3].

Peaonia lactiflora

Peaonia lactiflora (white peony) has a rich history of use in traditional medicine, particularly in China. It contains bioactive compounds, including paeoniflorin and paeonol, which have demonstrated various pharmacological properties, including anti-inflammatory, antioxidative, and anti-androgenic effects. These properties make peony an interesting candidate for the management of PCOS[4]. Peony compounds have been shown to exert anti-androgenic effects by inhibiting 5α -reductase activity, the enzyme responsible for converting testosterone to its more potent form, dihydrotestosterone (DHT), while also primarily improving the activity of CYP19A1 (aromatase)[5].

Cimicifuga racemosa

Cimicifuga racemose (Black Cohosh) is a North American herb which contains bioactive compounds, including triterpene glycosides and flavonoids, which have demonstrated pharmacological properties, including anti-inflammatory, anti-oxidative, and anti-androgenic effects.[6] There is evidence of improved follicular development and enhanced fertility outcomes in women with androgen excess, including PCOS.[7]

Zinc

Zinc is an essential mineral involved in numerous biochemical reactions in the body. Zinc is a cofactor for multiple enzymes, including those involved in DNA synthesis, immune function, and hormonal regulation. Deficiencies in zinc have been linked to PCOS-related complications. Numerous studies have demonstrated benefit from the use of zinc to address insulin resistance, inflammation and oxidative stress related to excess androgen production, as well as an enhanced role on reducing 5a-reductase expression and regulating hormone metabolism.[8][9]

L-Carnitine

L-carnitine is essential for the transport of long-chain fatty acids into the mitochondria for β -oxidation, thereby promoting energy production[10]. In PCOS, insulin resistance often leads to impaired mitochondrial function, and L-carnitine supplementation may enhance mitochondrial efficiency and reduce oxidative stress [11]. Additionally, L-carnitine has been shown to improve insulin sensitivity and modulate inflammatory pathways, providing a potential dual mechanism for PCOS management [12]. In addition to its metabolic effects, Lcarnitine may exert positive influences on reproductive outcomes in PCOS. Enhanced ovulatory function, improved menstrual regularity, and increased pregnancy rates have been observed in women receiving L-carnitine supplementation [13]. These effects may be attributed to the role of L-carnitine in reducing hyperandrogenism and promoting a more favorable hormonal milieu.

SUPPLEMENT FACTS

Serving Size 3 Capsules Servings Per Container 30

Servings Fer Container 30		
Amount Per Serving	% D	aily Value
Vitamin A (as beta carotene) 2	2.5 mcg RAE	3%
(from mixed-carotene blend)		
Vitamin B ₆ (as pyridoxal 5-phosphate)	5 mg	294%
Zinc (as zinc picolinate)	0.5 mg	5%
German Chamomile (<i>Matricaria</i> recutit	a) 175 mg	t
(flower) powder		
Betain anhydrous	150 mg	†
N-acetyl-L-cysteine	100 mg	+
Spearmint (Mentha spicata) (leaf) powo	der 100 mg	+
Lady's Mantle (Alchemilla vulgaris) (aeri	ial 100 mg	†
parts) powder		
Yarrow (Achillea millefolium) (aerial part	ts) 100 mg	+
powder		
Acetyl-L-Carnitine (as acetyl-l-carnitine	HCI)100 mg	+
Fo-Ti (He-Shou-Wu) (<i>Polygonum</i>	50 mg	+
multiflorum) (root) powder		
Black Cohosh (Cimicifuga racemosa)	50 mg	†
(rhizome & root) extract		
Alpha Lipoic Acid (as R-lipoic acid)	50 mg	t
Dandelion (Taraxacum officinale)	25 mg	t
(root) extract 4:1		
Dong-Quai (Angelica sinensis) (root)	25 mg	†
extract 4:1		
Licorice (Glycyrrhiza glabra) (root) powe	der 25 mg	t
White Peony Root (Bai-Shao) (<i>Paeonia</i>	25 mg	t
lactiflora) (root) extract 4:1		
Burdock (Arctium lappa) (root) extract 1	0:1 12.5 mg	+
Mixed-Carotene (from palm fruit (<i>Elaeis</i>	2.25 mg	t
guineensis))		
Alpha-Carotene	0.025 mcg	t
Gamma-Carotene	0.25 mcg	†
Lycopene	0.075 mcg	t
† Daily Value not established		

Other ingredients: Vegetable capsule (hypromellose), microcrystalline cellulose, magnesium stearate and silicon dioxide.

SUGGESTED USE

Take 2 capsules 2 times a day with a meal or as directed by your healthcare practitioner.

CAUTION: Do not use if pregnant or nursing. Consult your physician before use if you have a medical condition, or taking any medication. Do not use product if the safety seal is broken or damaged. Keep out of reach of children.

MADE WITHOUT

Wheat, gluten, corn, yeast, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, artificial colors, artificial sweeteners, or preservatives.

REFERENCES

- 1. Zeng LH, Rana S, Hussain L, Asif M, Mehmood MH, Imran I, Younas A, Mahdy A, Al-Joufi FA, Abed SN. Polycystic Ovary Syndrome: A Disorder of Reproductive Age, Its Pathogenesis, and a Discussion on the Emerging Role of Herbal Remedies. Front Pharmacol. 2022 Jul 18;13:874914.
- 2. Takeuchi T, Nishii O, Okamura T, Yaginuma T. Effect of paeoniflorin, glycyrrhizin and glycyrrhetic acid on ovarian androgen production. Am J Chin Med. 2 1991;19(1):73-8.
- 3. Ashkar F, Rezaei S, Salahshoornezhad S, Vahid F, Gholamalizadeh M, Dahka SM, Doaei S. The Role of medicinal herbs in treatment of insulin resistance in patients with Polycystic Ovary Syndrome: A literature review. Biomol Concepts. 2020 Mar 26;11(1):57-75.
- 4. Takeuchi T, Nishii O, Okamura T, Yaginuma T. Effect of paeoniflorin, glycyrrhizin and glycyrrhetic acid on ovarian androgen production. Am J Chin Med. 1991;19(1):73-8.
- 5. Arentz S, Abbott JA, Smith CA, Bensoussan A. Herbal medicine for the management of polycystic ovary syndrome (PCOS) and associated oligo/amenorrhoea and hyperandrogenism; a review of the laboratory evidence for effects with corroborative clinical findings. BMC Complement Altern Med. 2014 Dec 18;14:511.
- 6. Fan CW, Cieri-Hutcherson NE, Hutcherson TC. Systematic Review of Black Cohosh (Cimicifuga racemosa) for Management of Polycystic Ovary Syndrome-Related Infertility. J Pharm Pract. 2022 Dec;35(6):991-999.
- 7. Shahin AY, Mohammed SA. Adding the phytoestrogen Cimicifugae Racemosae to clomiphene induction cycles with timed intercourse in polycystic ovary syndrome improves cycle outcomes and pregnancy rates a randomized trial. Gynecol Endocrinol. 2014 Jul;30(7):505-10.
- 8. Afshar Ebrahimi F, Foroozanfard F, Aghadavod E, Bahmani F, Asemi Z. The Effects of Magnesium and Zinc Co-Supplementation on Biomarkers of Inflammation and Oxidative Stress, and Gene Expression Related to Inflammation in Polycystic Ovary Syndrome: a Randomized Controlled Clinical Trial. Biol Trace Elem Res. 2018 Aug;184(2):300-307.
- 9. Jamilian M, Foroozanfard F, Bahmani F, Talaee R, Monavari M, Asemi Z. Effects of Zinc Supplementation on Endocrine Outcomes in Women with Polycystic Ovary Syndrome: a Randomized, Double-Blind, Placebo-Controlled Trial. Biol Trace Elem Res. 2016 Apr;170(2):271-8
- 10. Alhasaniah AH. I-carnitine: Nutrition, pathology, and health benefits. Saudi J Biol Sci. 2023 Feb;30(2):103555.
- 11. Haghighatdoost F, Jabbari M, Hariri M. The effect of L-carnitine on inflammatory mediators: a systematic review and meta-analysis of randomized clinical trials. Eur J Clin Pharmacol. 2019 Aug;75(8):1037-1046.
- 12. Fathizadeh H, Milajerdi A, Reiner Ž, Amirani E, Asemi Z, Mansournia MA, Hallajzadeh J. The effects of L-carnitine supplementation on indicators of inflammation and oxidative stress: a systematic review and meta-analysis of randomized controlled trials. J Diabetes Metab Disord. 2020 Sep 15;19(2):1879-1894.
- 13. Agarwal A, Sengupta P, Durairajanayagam D. Role of L-carnitine in female infertility. Reprod Biol Endocrinol. 2018 13 Jan 26;16(1):5.

*These statements have not been evaluated by the Food & Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.