FEMARIN





CLINICAL APPLICATIONS

- Supports Cardiovascular and Neurologic Health
- Supports Homocysteine Balance
- Supports Healthy Arterial Function
- Maintains Normal Inflammatory Balance

WOMEN'S HEALTH

Femarin is a unique blend of botanicals formulated to provide targeted support for a comfortable and balanced menopausal transition. The ingredients in Femarin provide symptomatic relief for common complaints associated with menopause, such as hot flashes, night sweats and night awakenings, while serving as a foundation for overall wellness during this period of life. Femarin contains the synergistic blend of gamma oryzanol, black cohosh root extract, Dong quai, licorice root and trans-resveratrol in therapeutic doses to promote female hormonal balance before and during menopause.

Overview

The cessation of a woman's menstrual cycle typically occurs in midlife, during the late 40s or early 50s, and signals the end of the fertile phase.¹ For some women, the accompanying signs and effects that can occur during the transition years can be strong enough to significantly disrupt daily activities and sense of well-being. Femarin contains five key ingredients that provide proven phytoestrogen shown to support a woman's unique needs during this period. Specifically, Femarin's formula addresses hormonal balance, maintains normal inflammatory balance and provides antioxidant support, as well as cardiovascular and bone support for a full spectrum of protection and menopausal symptom relief.

Black Cohosh Root Extract †

Black cohosh root extract has been extensively studied for its hormone balancing benefits during peri-menopause and menopause. In fact, this botanical has been widely used for more than 40 years in Europe and is approved in Germany for premenstrual discomfort, painful menstruation and menopausal

symptoms. Black cohosh root contains components such as isoflavones and cimicifugoside, which have been shown to be responsible for the botanical's hormone balancing actions. Black cohosh has been shown to significantly reduce menopause-related symptoms, even when compared to other regimens in double-blind, placebo-controlled studies. In an open label trial of 629 patients with menopausal complaints given black cohosh, 80% of the patients improved after four weeks and within a six-to eight-week period, 50% reported a complete disappearance of symptoms.² Studies have also shown that black cohosh supports emotional well-being by promoting a sense of calmness, along with a positive mental outlook.^{3,4}The literature shows that black cohosh is beneficial to vaginal superficial cells and bone health without causing effects on the endometrium or follicle-stimulating hormone (FSH) levels. Possible mechanisms for its benefits include acting on selective estrogen receptor modulation, serotonergic pathways, antioxidant activity or inflammatory pathways.⁵

Trans-Resveratrol[†]

Resveratrol, a polyphenol found in grapes and red wine, has been shown to have an effect on free radical scavenging and antioxidant properties in various tissues. Similar in structure to estrogen, trans-resveratrol provides a range of supportive activities including hormonal balance and maintaining normal inflammatory balance. Resveratrol can support bone health by regulating the metabolism of bone cells and modulate bone turnover. Resveratrol also supports cardiovascular health by protecting lipids from peroxidative degradation and prevents the uptake of oxidized LDLs in the vascular wall. Grape polyphenol supplementation was found to significantly reduce whole-body oxidative stress and also



decreased the levels of plasma tumor necrosis factor-alpha, a key inflammatory marker.¹¹

Licorice Root Extract †

Licorice root is a botanical used medicinally in both Western and Eastern cultures for several thousands of years, and is widely used today in Chinese medicine. The active components of licorice root include glycyrrhizin and isoflavones. Licorice root's isoflavones have been shown to exert a balancing effect on estrogen levels. When estrogen levels are too high, it will inhibit estrogen action, and when estrogen are too low, it will potentiate estrogen action. Studies have shown glycyrrhizin can bind to both estrogen and androgen receptors. 12,13 lts unique action as a phytoestrogen allows it to bind estrogen receptors weakly to buffer estrogen dominance, particularly estrogen from outside sources (xenoestrogens). It has also been shown to prolong the half-life of cortisol, bolstering the body's stress response system. In addition, licorice has also been shown to support healthy bone mineral density in postmenopausal women¹⁴ and to inhibit serotonin re-uptake, which is essential for supporting a healthy mental outlook.¹⁵

Gamma Oryzanol†

Gamma oryzanol (ferulic acid) is a natural compound extracted from rice bran oil. Gamma oryzanol was first shown to be effective for relieving hot flashes in the early 1960s. 16 Numerous studies have highlighted the benefits of gamma oryzanol for menopausal complaints. An initial study found that 300 mg/day of gamma oryzanol over 38 days was able to reduce, by half, menopausal symptoms in 67% of the women studied. 17 A more recent study of 40 women given a dose of 300 mg/day of gamma oryzanol showed a reduction in menopausal symptoms in 85% of female subjects. 18 In addition to helping with symptoms of menopause, gamma oryzanol has also been shown to be effective in maintaining healthy cholesterol and triglyceride levels. 19

Dong Quai[†]

Considered by many as the woman's herb, Dong quai (*Angelica sinensis*) is native to China and Korea, where it is considered as a "female ginseng" due to its ability to reduce painful menstruation, support a regular and healthy menstrual cycle, and reduce menopausal symptoms, including hot flashes. The dried roots of *Angelica sinensis* contain coumarins, flavonoids and essential oils as active phytoestrogen constituents. Dong quai works most optimally when in synergy with other botanicals to support menstrual regularity and help nourish dry and thin vaginal tissues from menopause.²⁰

Directions

2 capsules per day in divided doses or as recommended by your health care professional.

Does Not Contain

Gluten, yeast, artificial colors or flavors.

Cautions

Do not consume this product if you are pregnant or nursing. Consult your physician for further information.

Serving Size 2 Capsules Servings Per Container 30		
	Amount Per Serving	% Daily Value
Gamma Oryzanol	300 mg	*
Black Cohosh Root Extract (Standardized to contain 2.5%	160 mg Triterpene Glycosides)	*
Dong Quai Root Extract	75 mg	*
Licorice Root Extract (Standardized to contain 12% 0	75 mg Glycyrrhizin)	*
trans-Resveratrol (from Polygonum cuspidatum (l	4 mg Roots))	*

ID# 559060 60 Capsules



References

- From: http://www.ncbi.nlm.nih.gov/pubmedhealth/ PMH0001896/
- 2. Stolze H. An alternative to treat menopausal complaints. Gyne 1982; 3:14-16.
- 3. Geller SE, Studee L. Botanical and dietary supplements for menopausal symptoms: what works, what does not. *J Womens Health* (Larchmt). 2005 Sep;14(7):634-49.
- 4. Nappi RE, Malavasi B, Brundu B, et al. Efficacy of Cimicifuga racemosa on climacteric complaints: a randomized study versus low-dose transdermal estradiol. *Gynecol Endocrinol*. 2005 Jan;20(1):30-5. [PMID: 15969244]
- 5. Ruhlen RL, Sun GY, Sauter ER. Black cohosh: Insights into its mechanism(s) of action. *Integr Med Insights*. 2008;3:21-32.
- Ruotolo R, Calani L, Fietta E, Brighenti F, Crozier A, Meda C, Maggi A, Ottonello S, Del Rio D. Anti-estrogenic activity of a human resveratrol metabolite. *Nutr Metab Cardiovasc Dis*. 2013 Nov;23(11):1086-92.
- 7. Basly JP, et al. Estrogenic/antiestrogenic and scavenging properties of (E)- and (Z)-resveratrol. *Life Sci* 2000; 66(9):769-77.
- 8. Debasis B, et al. Phytoestrogen, Resveratrol, and Womens Health. *Research Communications in Pharmacology and Toxicology* 2000; 5(1-2):107-21.
- 9. Fremont L. Biological effects of resveratrol. *Life Sci* 2000; 66(8):663-73.
- 10. Mobasheri A, Shakibaei M. Osteogenic effects of resveratrol in vitro: potential for the prevention and treatment of osteoporosis. *Ann N Y Acad Sci.* 2013 Jul:1290:59-66.
- 11. Zern TL1, Wood RJ, Greene C, West KL, Liu Y, Aggarwal D, Shachter NS, Fernandez ML. Grape polyphenols exert a cardioprotective effect in pre- and postmenopausal women by lowering plasma lipids and reducing oxidative stress. *J Nutr.* 2005 Aug;135(8):1911-7.
- 12. Tamaya T, Sato S, Okada H. Inhibition by plant herb extracts of steroid bindings in uterus, liver, and serum of the rabbit. *Acta Obstet Gynecol Scand* 1986; 65(8):839-4.
- 13. Tamir S1, Eizenberg M, Somjen D, Izrael S, Vaya J. Estrogen-like activity of glabrene and other constituents isolated from licorice root. *J Steroid Biochem Mol Biol.* 2001 Sep;78(3):291-8.

- 14. Somjen D1, Katzburg S, Vaya J, Kaye AM, Hendel D, Posner GH, Tamir S. Estrogenic activity of glabridin and glabrene from licorice roots on human osteoblasts and prepubertal rat skeletal tissues. *J Steroid Biochem Mol Biol*. 2004 Aug;91(4-5):241-6.
- 15. Ofir R1, Tamir S, Khatib S, Vaya J. Inhibition of serotonin re-uptake by licorice constituents. *J Mol Neurosci.* 2003 Apr;20(2):135-40.
- 16. Murase Y, Iishima H. Clinical studies of oral administration of gamma-oryzanol on climacteric complaints and its syndrome. *Obstet Gynecol* 1963; 12:147-149.
- 17. Muhammad SI1, Maznah I, Mahmud RB, Saeed MI, Imam MU, Ishaka A. Estrogen receptor modulatory effects of germinated brown rice bioactives in the uterus of rats through the regulation of estrogen-induced genes. *Drug Des Devel Ther.* 2013 Dec 2;7:1409-20.
- 18. Ishihara M. Effect of gamma-oryzanol on serum lipid peroxide levels and climacteric disturbances. *Asia Oceania J Obstet Gynecol* 1984;10:317-323.
- 19. Yoshino G, Kazumi T, Amano M, et al. Effects of gamma-oryzanol on hyperlipidemic subjects. *Curr Ther Res Clin exp* 1989;45:543-552.
- 20. Chen JK, Chen TT. Chinese Medical Herbology and Pharmacology. City of Industry, CA: Art of Medicine Press, Inc; 2001:645, 919.

