Femquil®

Healthy Hormone Support for Women*

the girlfriend doctor
DR. ANNA CABECA

Discussion

Whether it be during menstruation, ovulation, or menopause, the hormones in the female cycle fluctuate throughout a woman's lifetime. Hormonal imbalances contribute to the irritability and cramping commonly associated with premenstrual syndrome (PMS) and the hot flashes, sleep problems, and vaginal dryness associated with menopause. Hormonal imbalances may be exacerbated by xenoestrogens, a subcategory of endocrine disruptors that specifically have estrogen-like effects. Xenoestrogens have the capability to alter hormonal function in tissues, including breast, uterus, and cervix. Xenoestrogens may disrupt neurotransmitter balance, glucose homeostasis, normal reproduction, and healthy metabolism.[1,2] Additionally, improper aromatase conversion of excess estrogens has been associated with certain forms of hormone-dependent cancers. Femquil provides supplemental ingredients that have been traditionally and clinically used to support healthy hormone balance and promote detoxification of excess estrogens.*

Chaste Tree Berry Extract

Chasteberry (Vitex agnus-castus) has been used for centuries to support women with hormone-related gynecologic complaints. Chasteberry is wellknown for its balancing effect on female hormones, prompting more regular cycles. Modern research has validated this traditional use by showing that various preparations of chasteberry demonstrate positive effects in women with PMS.[3,4] The German Commission E approves the use of chasteberry to support menstrual cycle regularity, breast tenderness, and PMS; and it is widely recommended by family physicians and gynecologists in Germany for these issues.[5] Chasteberry iridoids and flavonoids are thought to exert benefits through indirect effects on various hormones, especially prolactin and progesterone.[5,6] Chasteberry also supports a normal, healthy attitude during the perimenopausal transition. It appears to significantly compete for binding at the estrogen receptors. Chasteberry has normalized short luteal phases and progesterone synthesis. The popular herb may help ease the common, transient symptom of mild breast tenderness possibly by inhibiting prolactin secretion.*[7]

Black Cohosh Extract

Black cohosh (Cimicifuga racemosa) is an herb traditionally used by American Indians for support of gynecological issues, including menstrual cramping and related low-back discomfort. It is commonly used to address menopausal symptoms, which can be attributed to its gentle phytoestrogenic activity and ability to decrease the production of luteinizing hormone. Simply put, phytoestrogens are naturally occurring compounds in plants that have the ability to block estrogen receptor sites. Research suggests that black cohosh effectively maintains a sense of calmness and healthy outlook, and it may help address menopause-associated vasomotor symptoms.[8,9] According to Ruhlen et al, black cohosh may exert its benefits through selective estrogen receptor modulation, serotonergic pathways, antioxidant activity, or inflammatory pathways.[10] Various studies demonstrate that black cohosh may also reduce hot flashes, night sweats, vaginal dryness and thinning, sleep disturbances, and emotional symptoms.*[11,12]

Clinical Applications

- Supports Balance of the Female Hormone Cycle*
- May Ease Common Symptoms Associated with PMS and Menopause*
- Promotes Estrogen Detoxification*
- Provides Antioxidant Activity and Cellular Support*

*Femquil® delivers biologically active folate and other key methylation vitamins in combination with a targeted blend of ingredients to encourage hormone balance, help modify xenoestrogen activity, and restore tranquility. Vitex and black cohosh provide traditional hormonebalancing support; DIM and calcium D-glucarate promote estrogen detoxification; and rosemary, resveratrol, grape seed extract, and green tea extract provide antioxidant activity.**

Diindolylmethane (DIM) and Glucoraphanin

Healthy metabolism of exogenous and endogenous estrogens can be pivotal for hormonal balance.[13] DIM (3,3'-diindolylmethane) is the stable, bioactive metabolite formed when stomach acid breaks down indole-3-carbinol (I3C), a sulfur-containing glucosinolate present in cruciferous vegetables.[14] DIM has been found to support hormone metabolism and immune activity and stimulate antioxidant and detoxification systems.[15] DIM helps maintain safe estrogen levels by aiding the conversion of dangerous estrogen fractions to more favorable metabolites and by promoting restoration of healthy hormone ratios. It promotes metabolism of estrogen into the favorable and protective 2-hydroxyestrone (2-OHE) metabolite versus production of 4-hydroxyestrone (4-OHE) and 16-alpha-hydroxyestrone (16-alphaOHE) metabolites.*[16]

The action of DIM is complemented by glucoraphanin, a compound isolated from broccoli seed that breaks down into sulforaphane glucosinolate (SGS). Researchers have shown that when SGS is broken down to sulforaphane (its active form), it safely and effectively upregulates the Nrf2 system, activates the antioxidant response element (ARE), enhances the production of important antioxidants, and activates vital phase II detoxification enzymes.[17] These mechanisms provide protection from toxins, xenoestrogens, and reactive intermediates formed after phase I detoxification.*

Additional Antioxidant Activity and Detoxification Support

Femquil provides additional ingredients that provide antioxidant activity and support detoxification. Calcium D-glucarate (CGT), produced naturally in very small amounts in the body and found in many fruits and vegetables, is included for its support of glucuronidation (phase II oxidation). Green tea\ catechins have been found to assist in free radical scavenging and support detoxification through modification of phase I and phase II enzymes. Turmeric extract provides curcumin, a phytonutrient valued for its promotion of antioxidant activity and support of metabolic detoxification. While resveratrol (Polygonum cuspidatum) may be best known for its antioxidant activity, it also provides phytoestrogenic activity. Both rosemary and grape seed extracts also provide antioxidant activity.*

Folate, Methylcobalamin (B12), Vitamin B6, Calcium, and Magnesium

Readily available forms of B vitamins, including 5-methyltetrahydrofolate (folate), methylcobalamin (B12), and pyridoxal 5'-phosphate (B6) are included for their role in supporting methylation. Highly bioavailable forms of calcium and magnesium are included for their role in muscle contraction and relaxation.*

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Femquil® Supplement Facts

Serving Size: 2 Capsules

	Amount Per Serving	%Daily Value
Vitamin B6 (as pyridoxine HCl and pyridoxal 5'-phosphate)	15 mg	882%
Folate (as (6S)-5-methyltetrahydrofolic acid, glucosamine salt)S1	340 mcg DFE	85%
Vitamin B12 (as methylcobalamin)	200 mcg	8,333%
Calcium (as dicalcium malateS2, calcium D-glucarate tetrahydrate, and calcium bisglycinate chelateS2)	60 mg	5%
Magnesium (as dimagnesium malate)S2	25 mg	6%
Calcium D-Glucarate Tetrahydrate	100 mg	**
Diindolylmethane (DIM)	50 mg	**
Green Tea Extract (Camellia sinensis)(leaf) (45% EGCG)	50 mg	**
Black Cohosh Extract (Cimicifuga racemosa) (root and rhizome)(2.5% triterpene glycosides)	50 mg	**
Chaste Tree Extract (Vitex agnus-castus)(berry) (0.6% aucubin and 0.5% agnuside)	50 mg	**
Turmeric Extract (Curcuma longa)(root)(95% curcuminoids)	25 mg	**
Rosemary Extract (Rosmarinus officinalis)(leaf) (5% rosmarinic acid)	25 mg	**
trans-Resveratrol (from Polygonum cuspidatum)(root)	20 mg	**
Grape Seed Extract (Vitis vinifera)(seeds)(5% monomers)	12.5 mg	**
Glucoraphanin (from broccoli extract)(Brassica oleracea italica) (seed)S3	4.5 mg	**

** Daily value not established.

Other Ingredients: Capsule (hypromellose and water), maltodextrin, ascorbyl palmitate, microcrystalline celluose, silica, L-leucine, tricalcium phosphate, and hydroxypropyl cellulose.

DIRECTIONS: Take two capsules twice daily, or as directed by your healthcare professional.

Consult your healthcare practitioner prior to use. Individuals taking medication should discuss potential interactions with their healthcare practitioner. Do not use if tamper seal is damaged.

STORAGE: Keep closed in a cool, dry place out of reach of children.

DOES NOT CONTAIN: Wheat, gluten, soy, animal and dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, and artificial preservatives.

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Quatrefolic®

S1. Quatrefolic® is a registered trademark of Gnosis S.p.A. Produced under US patent 7,947,662.

S2. Albion®,DimaCal®,TRAACS®and the Albion Gold Medallion design are registered trademarks of Albion Laboratories, Inc. Malates covered by U.S. Patent 6,706,904.

S3. TrueBroc®is protected by trademarks and patents of Brassica Protection Products LLC: www.brassica.com/ip

Calcium D-glucarate is licensed from Applied Food Sciences, Inc. and is protected by US patent 7,662,863.

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Additional references available upon request

FlashArrest®

the girlfriend doctor
DR. ANNA CABECA

Targeting Estrogen Activity for Men and Women*

Discussion

As scientific knowledge advances, it is becoming more evident that a balance of estrogenic and antiestrogenic activities within the body is normal and optimal, has important effects on the health of estrogen-sensitive tissues, and can help relieve normal menopausal symptoms. Reducing abundant estrogenic activity is one way to support balance. Another approach is to offer the body a "weak" estrogen that can support estrogenic activity when it is low or can replace more potent endogenous or exogenous estrogens.[1] Research suggests that the ingredients in FlashArrest do both.*

Prenylnaringenins (PNs) Hops are the female seed cones of the hop species Humulus lupulus, a medicinal plant that offers a wide range of biologically active components that are used for a variety of purposes. More recently, prenylflavonoids obtained from the lupulin glands of hop cones have become the focus of research. The prenylflavonoid 8-PN has been identified as one of the most potent phytoestrogens because it provides greater activity than other commonly used isoflavone phytoestrogens, such as daidzein and genistein.*[2]

In vitro and in vivo studies conducted in recent years indicate a potential role for PNs in relieving common menopausal concerns.[3,4] In pilot and prospective studies that were randomized and placebo-controlled, postmenopausal women who took 100-250 mcg/day of standardized PNs experienced reductions in vasomotor symptoms and other common menopausal discomforts.[4,5] Although further studies are needed, animal and in vitro research with PNs indicates a mild estrogenic effect in vaginal and uterine tissues [6] and shows promising effects in cardiovascular,[7,8] bone, [9,10] prostate,[11] and breast health. [12.13]*

Not only do PNs offer phytoestrogenic activity, but they have also been observed to affect aromatase—a cytochrome P450 isoenzyme responsible for the conversion of circulating androgens into estrogens. Aromatase is expressed in several tissues, such as breast tissue, where estrogens exert physiological activity.[12] New research suggests that prenylflavonoids interact with aromatase in a manner that positively affects endogenous estradiol biosynthesis[1] and, therefore, the relative balance of other hormones, such as testosterone.[14] Of the flavonoids studied, 8-PN has demonstrated the greatest impact on estrogen biosynthesis during in vitro experimentation.[1,12] It has been postulated that providing phytoestrogens while modulating the production of potent endogenous estrogens may result in safer, more balanced estrogenic activity. Brunelli et al.[15] investigated the influences of PNs on epidermal growth factor (EGF)-elicited pathways in certain breast cells and demonstrated that 8-PN interferes with EGF-induced cell proliferation in estrogen-receptor positive cells.*

HMRlignan™ Plant lignans are phytonutrients commonly found in small amounts in unrefined whole grains, seeds, nuts, vegetables, berries, and beverages, such as tea and coffee. The friendly bacteria in our intestines convert plant lignans into the "human" lignans called enterodiol and enterolactone. HMRlignan is a concentrated, naturally occurring plant lignan called 7-hydroxymatairesinol, which is derived from the Norway spruce (Picea abies). In humans, 7-hydroxymatairesinol is a direct metabolic precursor of enterolactone.*[16]

Clinical Applications

- **Supports the Body's Natural Process of Healthy Aromatase Activity***
- **May Support Bone, Breast, and Prostate Tissue Health***
- **Helps to Relieve Normal Menopausal Symptoms, Such as Hot Flashes***
- **Supports Cardiovascular Health***

*FlashArrest® delivers a unique, proprietary blend of 8-prenylnaringenin (8-PN) from hops and plant-lignan extract at clinically relevant levels. Research suggests lignans and 8-PN can support the body's natural process of healthy aromatase activity and exert phytoestrogen (e.g., enterolactone) and antioxidant activity. This all-natural formula may support cardiovascular, bone, breast, and prostate health and help relieve normal menopausal discomforts.**

Enterolactone is a phytoestrogen that binds to estrogen receptors and has both weak estrogenic and weak antiestrogenic effects. The latter accounts for much of its cell-protective capacity.[17] Additionally, in vitro work has demonstrated that enterolactone affects aromatase and the biosynthesis of estrogen[18] and has strong free radical scavenging and antioxidant properties.[19,20] The protective effect of lignans and enterolactone on tissues, including those of the prostate and breast, is encouraging.[21-23] At the same time, the estrogenicity of HMR and enterolactone, although milder than estradiol, offers promising applications for women with menopausal concerns.[16] For instance, in a randomized, single-blind, parallel group pilot study, 20 menopausal women taking 50 mg/d of hydroxymatairesinol for eight weeks experienced half as many hot flushes as compared to pretreatment.[24] Furthermore, high serum enterolactone has repeatedly been associated with cardiovascular health.*

FlashArrest® Supplement Facts

Serving Size: 2 Capsules

	Amount Per Serving	%Daily Value
FlashArrest® Proprietary Blend Norway spruce lignan extract (Picea abies) (knot wood) (90% hydroxymatairesinol potassium acetate) and 8-prenylnaringenin (from hops extract)(Humulus lupulus)(cones)	80 mg	**

** Daily value not established.

Other Ingredients: Microcrystalline cellulose, HPMC (capsule), stearic acid, magnesium stearate, and silica.

DIRECTIONS: Take one to two capsules daily, or use as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Individuals taking medication should discuss potential interactions with their healthcare practitioner. Do not use if tamper seal is damaged.

STORAGE: Keep closed in a cool, dry place out of reach of children.

DOES NOT CONTAIN: Wheat, gluten, corn, soy, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

VEGETARIAN CAPS

FlashArrest®

Targeting Estrogen Activity for Men and Women*

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Additional references available upon request

OptiMag®125

Proprietary Blend of Patented Magnesium

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Discussion

Magnesium Lysinate Glycinate Chelate, a mineral amino acid chelate in which magnesium is bound to two amino acids, creates a complex that is more readily absorbed across the intestinal wall. Since the body can efficiently absorb dipeptides (two amino acids linked together), Albion's TRAACS magnesium lysinate glycinate is an excellent delivery system for magnesium. In general, Albion TRAACS patented mineral amino acid chelates are resistant to competitive minerals, do not weaken the action of vitamins, and pose a smaller risk of overdosing.*[1]

Di-Magnesium Malate, the other chelate in OptiMag 125, contains 69% malate (malic acid). Each capsule of OptiMag 125 supplies approximately 400 mg of malic acid. Malic acid was chosen because it forms complexes with magnesium.[2] Magnesium and malate play critical roles in energy production under aerobic conditions or when oxygen is lacking.[3] Malic acid also appears to exert a protective effect by binding aluminum.*[4]

Magnesium, the fourth most abundant mineral in the body, participates in about 300-350 enzymatic reactions in nearly all tissues. Deficiency is common and results from poor dietary intake, poor absorption, and excessive losses through urine, stool, perspiration, or lactation. Certain drugs, certain herbs, poor kidney function, excessive alcohol intake, and drinking mostly "soft" water can contribute to magnesium depletion as well.*[5]

Magnesium's role in the clinical applications cited above is quite well established. Beyond these commonly recognized applications, researchers have demonstrated that magnesium can support cytokine balance and decrease sensitivity to oxidative stress.[6] An analysis of the results of a National Health and Nutrition Examination Survey (NHANES) suggested that children who consumed less than 75% of the recommended dietary allowance (RDA) for magnesium were 58% more likely to have elevated C-reactive protein (CRP) levels.[7] Magnesium's role in modulating CRP and supporting the body's normal response to inflammation may be significant. In addition, although underlying mechanisms remain unclear, it appears that men who consume diets rich in magnesium are able to maintain healthy gallbladder function.[8] Adequate magnesium intake indeed has strong, far-reaching health benefits.*[9]

Clinical Applications

- **Supports Cardiovascular Health***
- **Supports Healthy Muscle Function/Healthy Nerve Conduction***
- **Supports Bone Health***
- **Supports Energy Production***
- **May Support Healthy Glucose Metabolism***

Magnesium, the fourth most abundant mineral in the human body, plays a role in over 300 metabolic processes. It participates in the development and maintenance of bones and teeth; the metabolism of carbohydrates, blood glucose, fats, and proteins; the formation of cells and tissues; and the maintenance of muscle function, including cardiac muscle. ***OptiMag® 125*** *contains Albion's TRAACS magnesium lysinate glycinate (mineral amino acid chelate) and Albion's chelated dimagnesium malate—both formulated for enhanced absorption. Malic acid (from di-magnesium malate) supports energy production and lactic acid clearance via the Krebs cycle. Malic acid may also support antioxidant systems by enhancing glutathione and antioxidant enzymes.**

OptiMag® 125 Supplement Facts

Serving Size: 2 Capsules

	Amount Per Serving	%Daily Value
Magnesium (as Albion® di-magnesium malate and TRAACS® magnesium lysinate glycinate chelate)	250 mg	60%
Malic Acid (as Albion® di-magnesium malate)	828 mg	**

** Daily value not established.

Other Ingredients: HPMC (capsule), stearic acid, medium-chain triglyceride oil, magnesium stearate, and silica.

DIRECTIONS: Take one to two capsules twice daily at or between meals, or as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Individuals taking medications should discuss potential interactions with their healthcare practitioner. Do not use if tamper seal is damaged.

STORAGE: Keep closed in a cool, dry place out of reach of children.

DOES NOT CONTAIN: Wheat, gluten, corn, yeast, soy, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

VEGETARIAN CAPS

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Additional references available upon request

Xcellent E™

Bio-Enhanced Tocopherol/Tocotrienol Complex*

the girlfriend doctor
DR. ANNA CABECA

Discussion

Vitamin E, in its natural form, comprises eight different compounds: alpha-, beta-, gamma-, and delta-tocopherols and alpha-, beta-, gamma-, and delta-tocotrienols. Both tocopherols and tocotrienols are important to human health. Known as the "master antioxidant," vitamin E has the ability to attenuate oxidative stress, and its antioxidant-related effects on various organs and systems have been the focus of vast research. More recently, non-antioxidant mechanisms have been proposed, such as those that affect cellsignal transduction and gene expression.[1] Though the vast majority of research has been on alpha-tocopherol, recent mechanistic studies indicate that other isomers of vitamin E, such as gamma- and deltatocopherols and tocotrienols, have superior antioxidant and cellsignaling properties that offer greater health benefits.*[2,3]

Tocotrienols

Studies have demonstrated that tocotrienols have superior antioxidant activity compared to tocopherols. Tocotrienols also exhibit biological activities related to neuroprotection, radioprotection, cell-life regulation, cytokine modulation, and lipid metabolism that are not shared by tocopherols.[3-5] Many of these benefits are thought to be mediated via their carboxychromanol metabolites.[2,6] Among other actions, tocotrienols have been shown to inhibit HMG-CoA reductase (3-hydroxy-3-methylglutaryl-coenzyme A reductase), attenuate transcription factor NF-κB activation, and inhibit COX-2.[7,8] Given these mechanisms, in addition to their antioxidant mechanisms, tocotrienols have a very broad range of applications. Due to the poor absorption and low bio-availability of tocotrienols, scientists developed EVNol SupraBio™.*

EVNol SupraBio: Bio-enhanced tocotrienol/tocopherol complex

EVNol SupraBio is a natural, full-spectrum tocopherol and tocotrienol complex extracted and concentrated from the red palm fruits (Elaeis guineensis) of sustainable plantations in Peninsular Malaysia. This vitamin E complex also contains minute amounts of other phytonutrients such as plant squalene, phytosterols, coenzyme Q10, and mixed carotenoids that are naturally extracted together with tocotrienols. This patented formula contains a precise mixture of oil and approved food emulsifiers at optimum ratio and processing that self-emulsifies in the gastrointestinal tract to facilitate and provide a rapid and consistent absorption of tocotrienols into the plasma, independent of dietary fat or food intake.*

EVNol SupraBio Human Absorption Studies

Kholsa et al were the first to establish that oral supplementation of EVNol SupraBio resulted in a peak plasma level 12- to 13-fold the level established for neuroprotection.[9] Later, in a two-period, twosequence, crossover study performed in healthy human volunteers, researchers demonstrated that the SupraBio system increased the rate and extent of absorption of individual tocotrienols by an average of 250% compared to a regular tocotrienol oil extract.[10] Moreover, EVNol Suprabio is the only tocotrienol/tocopherol complex in the market that has been the subject of an actual human tissue distribution study. In that study, Patel et al demonstrated that orally supplemented tocotrienols from EVNol SupraBio are absorbed into plasma and delivered and accumulated in vital organs, including the brain.*[11]

Clinical Applications

- Offers Antioxidant Protection for Cell Membranes and Lipids*
- Supports Healthy Cytokine and Eicosanoid Balance*
- Supports Neuroprotection and Cognitive Health*
- Supports Cardiovascular, Nervous, and Reproductive Systems*
- Supports Liver Health*
- Provides Mixed Tocopherols and Tocotrienols for Comprehensive Vitamin E Nutrition*

*Xcellent E™ features EVNol SupraBio™ full-spectrum palm tocopherol/tocotrienol complex. EVNol SupraBio's patented bio-enhancing technology has been shown to increase tocotrienol absorption rates in humans by an average of 250%. Tocotrienols confer unique health benefits not provided by tocopherols. This means Xcellent E not only enables superior absorption but also more comprehensive vitamin E benefits than tocopherol-only formulas.**

EVNol SupraBio Human Clinical Studies

EVNol SupraBio is a heavily researched tocopherol/tocotrienol product that has been scientifically substantiated with human clinical studies on brain health, liver support, beauty, and cardiovascular health.[11-18] For example, in a randomized, placebo-controlled, two-year neuroprotection study (n = 121), supplementation with 200 mg/d EVNol SupraBio attenuated the progression of injury to brain white matter.[12] Three other studies demonstrated the positive effects of EVNol SupraBio on parameters of liver health[11,13,14], and studies related to cardiovascular health suggested that 50-200 mg/d EVNol SupraBio supports healthy lipid (cholesterol, low-density lipoprotein, triglyceride) metabolism and showed a trend toward improved arterial compliance (the ability to expand and contract).[15,16] Supplementation has also been shown to support the desired immune response to vaccine.[17] And in a randomized, double-blind, placebo-controlled trial (n = 38), volunteers with hair loss who were given 100 mg of EVNol SupraBio daily experienced a 34.5% increase in number of hairs at the end of eight months, compared to a 0.1% increase in the placebo group.[18] The higher activity of tocotrienols in certain organs may, in part, be explained by the fact that the unsaturated side-chain of tocotrienols allow more efficient penetration into tissues, such as brain and liver tissues, that have saturated fatty layers.*[3,13]

It is clear from the emerging data that tocopherols and tocotrienols have complementary, unique, and important functions.[3] Providing a formula that supplies the full spectrum of natural vitamin E isomers is an important option for practitioners and their patients.*

OncoPLEX™

Glucoraphanin

the girlfriend doctor
DR. ANNA CABECA

Xcellent E™ Supplement Facts

Serving Size: 1 Softgel

	Amount Per Serving	%Daily Value
Vitamin E (as d-alpha tocopherol)	33.5 mg	223%
EVNol SupraBio™ Bio-Enhanced Natural Full Spectrum Tocotrienol/Tocopherol Complex	164.5 mg	**
Total Mixed Tocotrienols	25 mg	**
d-Gamma Tocotrienol	11.5 mg	**
d-Alpha Tocotrienol	7.4 mg	**
d-Delta Tocotrienol	4.1 mg	**
d-Beta Tocotrienol	822.5 mcg	**
Total Mixed Tocopherols Typical Composition:	125 mg	**
d-Gamma Tocopherol	75 mg	**
d-Delta Tocopherol	30 mg	**
d-Alpha Tocotrienol	17.5 mg	**
d-Beta Tocopherol	2.5 mg	**

** Daily value not established.

Other Ingredients: Sunflower oil, softgel (bovine gelatin, vegetable glycerin, and purified water), and polyglycerol esters of fatty acids.

DIRECTIONS: Take one softgel twice daily, or use as directed by your healthcare practitioner.

Consult a healthcare practitioner prior to use. Individuals taking medication should discuss potential interactions with their healthcare practitioner. Do not use if tamper seal is damaged.

STORAGE: Keep closed in a cool, dry place out of reach of children.

DOES NOT CONTAIN: Wheat, gluten, corn, yeast, soy protein, dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

EVNol SupraBio™

EVNol SupraBio is a trademark of ExcelVite Inc. and protected by US patent 6,596,306.

Note on Vitamin E Activity and International Units (IUs)

Only alpha-tocopherol contributes to IU of vitamin E activity: 1 mg d-alpha tocopherol equals 1.49 IU vitamin E activity. Other naturally occurring forms of vitamin E (beta-, gamma-, deltatocopherol) and tocotrienols do not contribute toward meeting the vitamin E requirement. Hence, the IU is calculated based on alpha-tocopherol alone in all formulations. Other isomers of vitamin E are expressed as "mg." Each gram of EVNol SupraBio 20% contains approximately 152 mg d-mixed tocotrienols and 35-60 mg d-alpha-tocopherol. Hence, the minimum vitamin E activity in 1 gram of EVNol SupraBio 20% = 35 mg d-alpha-tocopherol x 1.49 = 52.15 IU.

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Additional references available upon request

Omega MonoPure® Formulas

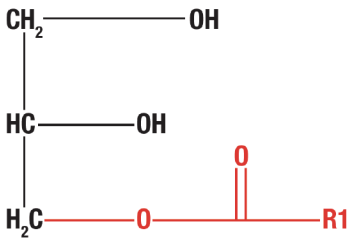
the girlfriend doctor
DR. ANNA CABECA

3X Greater Absorption*

Discussion

MaxSimil® Patented Lipid Absorption Enhancement Technology (PLATform)
The MaxSimil PLATform is a novel monoglyceride delivery system that enhances absorption of lipid-based and lipid-soluble nutraceutical and food ingredients. This technology has been applied to XYMOGEN's Omega MonoPure formulas in order to create a unique vehicle by which to deliver EPA and DHA. Due to the fact that monoglyceride oils are intrinsically emulsifiers and are, by nature, in a readily absorbable form (Figure 1), they can bypass the body's normal fat digestion process. These qualities make Omega MonoPure an excellent method for delivering omega-3 fatty acids, especially to individuals with digestive, pancreatic, or gall bladder challenges. Studies show that MaxSimil fish oils (FO) have three times (300%) greater absorption of EPA and DHA compared to other leading fish oils.*[1-3]

Figure 1. Monoglyceride Chemical Representation in MaxSimil Fish Oils (R1 = fatty acid)



Unique structure: One fatty acid attached to a glycerol backbone provides two polar ends that attract water and a non-polar tail end (R1) that attracts fat, thus enabling self-emulsification of the Omega MonoPure formulas.

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Quality

Omega MonoPure formulas are made using proprietary MaxSimil compositions containing monoglyceride FO with no additional ingredients, carriers, or excipients. Each fish-gelatin softgel is enteric-coated, and every batch of fish oil is IFOS five-star certified to ensure the world's highest standards for purity, potency, and freshness. The fish oil is non-GMO, certified sustainable from Scandinavia, and antibiotic-free. Additionally, it is eco-friendly because the greater absorption of EPA and DHA ultimately means that fewer grams of fish oil need to be harvested for the same benefit.*

In Vitro and In Vivo Animal Studies

The ability of MaxSimil-enhanced EPA and DHA to positively influence growth inhibition and apoptosis in colorectal, breast, lung, and prostate diseased cell lines was first demonstrated in a series of in vitro studies.[4-6] Researchers subsequently set out to demonstrate efficacy in animal models after oral administration. In three separate animal models, MaxSimil EPA and DHA forms showed superior activity on diseased cell-line growth inhibition and cytokine production when compared to control, corn oil, krill oil, or the parent forms ethyl ester (EE) EPA and ethyl ester (EE) DHA.[4,7,8] These in vivo animal studies proved that orally supplemented MaxSimil EPA and DHA were well-absorbed and bioactive. Researchers postulated that the observed superior effects of MaxSimil EPA and DHA forms were the result of enhanced absorption, and they set out to prove this hypothesis.*

Clinical Applications

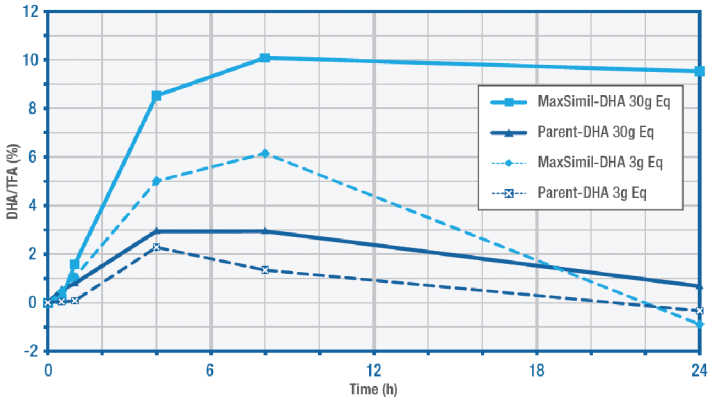
- Positively Affects the Production of Arachidonic Acid-Derived Eicosanoids*
- Supports Cardiovascular Health*
- Supports Healthy Mental Functioning*
- Supports Healthy Glucose and Insulin Metabolism*
- By Supplying the Precursors EPA and DHA, Helps the Body Generate Specialized Proresolving Lipid Mediators, Such as Resolvins and Protectins*

The **Omega MonoPure** *family of formulas feature IFOS five-star certified MaxSimil® monoglyceride fish oil that has a three times greater EPA+DHA absorption rate than an equivalent dose of other leading fish oils. Through the use of MaxSimil patented lipid absorption enhancement technology (PLATform), the fish oil is absorption-ready and can be directly assimilated in the intestinal tract for maximum benefit.**

Preclinical Bioavailability Studies

The in vivo pharmacokinetic studies in rodents involved a comparison between MaxSimil DHA FO and its parent EE DHA FO and an analysis of blood concentrations of DHA over time. The doses used were equivalent to human doses of 3 g/day and 30 g/day; the latter was included primarily to investigate toxicity at high doses. Researchers found that MaxSimil DHA FO had a three times (3x) higher peak concentration (6% versus 2%, Figure 2), a 3x higher saturation potential at the high dose (10% versus 3%), and a 3x higher absorption rate (at a 3 g/day equivalent human dose) than its parent DHA FO. No toxicity was observed at either dose level.[1,2] This research demonstrated superior bioavailability and presumably better exposure of cells to DHA.*

Figure 2. Preclinical Bioavailability Study in Rodents Demonstrates Superior Peak Concentration, Saturation, and Absorption of MaxSimil DHA FO Versus Its Parent DHA FO
Data were derived from Ingenutra, Inc.[1,2]



Omega MonoPure® Formulas

the girlfriend doctor
DR. ANNA CABECA

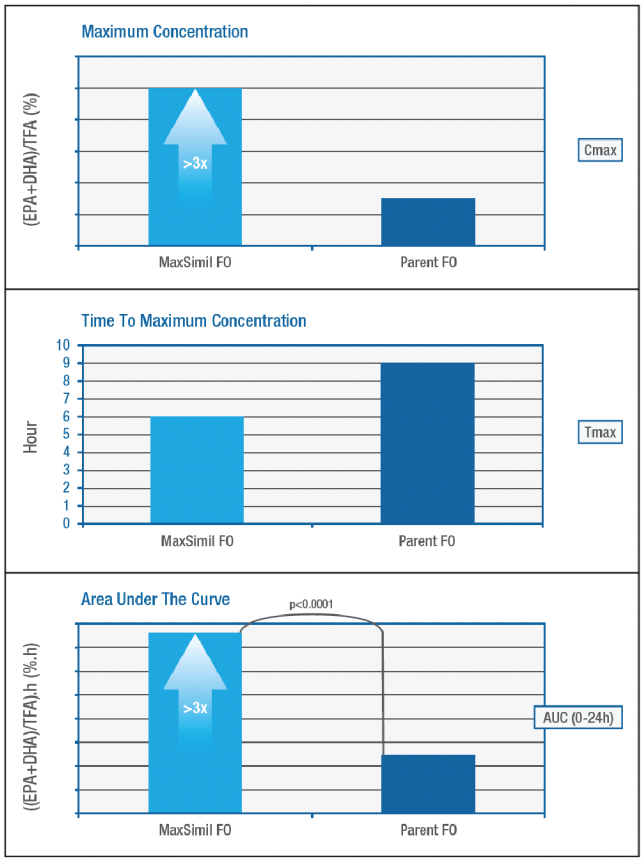
3X Greater Absorption*

Clinical Bioavailability Study

A phase 1, double-blind, randomized, crossover, pharmacokinetic study was performed in 20 healthy adults aged between 19 and 71 years who were administered 6 g (containing 1800 mg EPA and 1200 mg DHA) per day of EE FO or MaxSimil FO.[3] Parameters studied were plasma EPA and DHA concentration (as percent of total fatty acids), Cmax, and AUC. Compared to EE EPA+DHA, the results indicated that at peak concentration, MaxSimil EPA and DHA forms were 3x higher, they reached maximum concentration faster, and maintained their plasma levels longer (Figure 3). The finding in the animal study was validated: the MaxSimil FO instantaneous absorption was 3x greater than the EE form. Likewise, the AUC over 24 hours was also more than 3x higher (P<.0001) for MaxSimil EPA and DHA (MaxSimil FO).*

Not only did this study confirm the bioavailability findings in the animal study, but it also demonstrated that after 24 hours, the MaxSimil FO maintained 2-3x higher blood levels of EPA and DHA than the EE FO. This means that, given a daily dose, circulating EPA and DHA levels can be expected to ramp up over time and remain high with steadily increasing exposure of cells to EPA, DHA, and their metabolites. Based on the results of the bioavailability studies, an individual would get more EPA and DHA from MaxSimil FO than from EE FO gram for gram. Furthermore, as shown in the animal studies, one could anticipate enhanced effects. It is noteworthy that all 20 adults who completed the study saw their omega-3 absorption enhanced when taking the MaxSimil enhanced FO.*

Figure 3. Human Clinical Study Findings Demonstrate Superior Absorption of and Exposure to EPA and DHA as Indicated by Cmax, Tmax, and AUC



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Expanding Research

In vitro and animal studies have demonstrated the positive effects of MaxSimil FO on airway immune response (e.g., IgE, leukocytes); the expression of COX-2, NF-kB, cytokines (e.g., IL-6, IL-8), MUC5AC, and mucin; and Ca(2+) hypersensitivity in lung tissues.[8-11] In other research, rats subjected to eight weeks of a high-fat, high-carbohydrate diet were either not supplemented or provided 3 g/day of MaxSimil DHA. Compared to the data from the non-supplemented group, the data from the MaxSimil DHA supplemented group clearly showed a positive impact on cardiovascular health parameters. Measures included blood pressure, heart rate, serum lipid levels, cytokine production, aortic wall thickness, and a DHA:AA ratio in aortic tissue, which correlated with the production of resolvin D2 and D3 metabolites.*[12]

A Note About Resolvins and Other EPA and DHA Metabolites

Specialized proresolving lipid mediators, such as resolvins, protectins, and maresins, are EPA and DHA metabolites naturally produced in vivo through enzymatic conversion of EPA and DHA. These mediators aid the body's "clean-up" response to the arachidonic acid cascade.[13] Rather than supplying a single molecule or metabolite, which would mirror the pharmaceutical model, Omega MonoPure fish oils provide all the benefits of EPA and DHA as well as the expected and desirable benefits of their metabolites.*

Omega MonoPure® 1300 EC Supplement Facts

Serving Size: 1 Softgel

	Amount Per Serving	%Daily Value
Calories	10	
Total Fat	1 g	1%†
MaxSimil® Fish Oil Concentrate	1.3 g	**
Total Omega-3 Fatty Acids	860 mg	**
EPA (eicosapentaenoic acid)	600 mg	**
DHA (docosahexaenoic acid)	260 mg	*

† Percent Daily Value based on a 2,000 calorie diet.
** Daily value not established.

Other Ingredients: Softgel (fish gelatin, vegetable glycerin, and purified water), GRAS enteric coating (ethylcellulose, sodium alginate, purified water, medium-chain triglycerides, oleic acid, vegetable stearic acid, and ammonium hydroxide), and mixed natural tocopherols.
Contains: Fish (anchovy and/or sardine [sources of fish oil], tilapia and/or pangasius [sources of fish gelatin]).

DIRECTIONS: Take one softgel daily, or use as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Individuals taking blood thinners or other medication should discuss potential interactions with their healthcare practitioner. Do not use if tamper seal is damaged.

STORAGE: Keep tightly closed in a cool, dry place out of reach of children.

DOES NOT CONTAIN: Wheat, gluten, corn, yeast, soy protein, dairy products, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

Omega MonoPure®Formulas

the girlfriend doctor
DR. ANNA CABECA

3X Greater Absorption*

Third-Party Certificate of Analysis (COA) can be found by visiting:
http://www.ifosprogram.com/consumer-reports.aspx
Manufactured using MaxSimil® fish oil. MaxSimil® s a registered trademark of Ingenutra Inc. Protected under US patents 8,119,690 and 8,198,324; Canadian patents 2672513 and 2677670.

Omega MonoPure® 650 EC Supplement Facts

Serving Size: 1 Softgel

	Amount Per Serving	%Daily Value
Calories	5	
Total Fat	0.5 g	1%†
MaxSimil®Fish Oil Concentrate	650 mg	**
Total Omega-3 Fatty Acids	430 mg	**
EPA (eicosapentaenoic acid)	300 mg	**
DHA (docosahexaenoic acid)	130 mg	*

† Percent Daily Value based on a 2,000 calorie diet.
** Daily value not established.

Other Ingredients: Softgel (fish gelatin, vegetable glycerin, and purified water), GRAS enteric coating (ethylcellulose, sodium alginate, purified water, medium-chain triglycerides, oleic acid, vegetable stearic acid, and ammonium hydroxide), and mixed natural tocopherols.
Contains: Fish (anchovy and/or sardine [sources of fish oil], tilapia and/or pangasius [sources of fish gelatin]).

DIRECTIONS: Take one softgel daily, or use as directed by your healthcare practitioner.

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IFOS™ Certification Mark is a registered trademark of Nutrasource Diagnostics Inc.

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Additional references available upon request