

Omega MonoPure[®] Curcumin EC

Highly Bioavailable Omega-3 & Curcumin*



Available in 30 fish gelatin softgels

Discussion

Omega MonoPure[®] Curcumin EC features highly absorbable, patented forms of both monoglyceride fish oil and standardized turmeric extract to offer combined support for cellular health and the modulation of cytokine production.*

The two most well-researched omega-3 fatty acids are eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). EPA plays a role in supporting healthy cardiac and circulatory systems while DHA is an essential structural component of the central nervous system. In addition to other physiological effects, research has established that omega-3 fatty acids antagonize arachidonic acid-induced eicosanoid formation. They also help generate resolvins and protectins (EPA and DHA metabolites, called specialized proresolving mediators (SPMs), that are naturally produced in vivo through enzymatic conversion of EPA and DHA) to aid the body's "cleanup" response to the arachidonic acid cascade, and they promote cardiovascular health.*^[1-7]

Curcumin, the principal curcuminoid in turmeric, has been the subject of vast research in recent years. The pleiotropic nature of curcumin's biological effects makes it an interesting compound to researchers who study common chronic health concerns, such as those associated with joints, the cardiovascular system, glucose metabolism, brain function, mood, and cell-cycle regulation. These effects make curcumin applicable to a wide array of clinical presentations.*^[8-13]

MaxSimil[®] Fish Oil Concentrate

MaxSimil is a novel monoglyceride concentrated fish oil developed using patented lipid absorption enhancement technology (PLATform), 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, they can bypass the body's normal fat digestion process. Studies conducted by the manufacturer of MaxSimil provide promising results that show MaxSimil fish oil may be better absorbed than other fish oils. Rather than supplying a single molecule or metabolite, which would mirror the pharmaceutical model, MaxSimil provides all the benefits of EPA and DHA as well as the expected and desirable benefits of their metabolites. From a quality perspective, every batch of fish oil is IFOS five-star certified to ensure the highest standards for purity, potency, and freshness. The fish oil is also non-GMO, certified sustainable from Scandinavia, and antibiotic-free.*^[14-16]

An unpublished single dose, double-blind, crossover, pharmacokinetic study was performed in healthy overnight fasted male and female subjects (n = 20) aged between 19 and 60 years. Each participant was administered six softgels (containing 2000 mg EPA and 1500 mg DHA) of ethyl ester (EE) fish oil or MaxSimil. Parameters studied were plasma EPA and DHA concentration (as percent of total fatty acids), maximum concentration (C_{max}), time to concentration (T_{max}) and area under the curve (AUC). The results indicated that at peak concentration, the

Clinical Applications

- » Patented Enhanced Absorption of EPA and DHA*
- » Highly Bioavailable Curcuminoid and Turmeric Essential Oil Extract*
- » Provides Antioxidant Activity and Cytokine Balance Support*
- » Promotes Healthy Cell-Life Regulation*

*Omega MonoPure[®] Curcumin EC features complementary ingredients to help promote cellular health and modulate the production of cytokines. MaxSimil[®] highly absorbable monoglyceride fish oil is International Fish Oil Standards (IFOS) five-star certified. BCM-95[®] is an optimally absorbed turmeric extract composed of a 95% standardized curcuminoid-essential oil complex.**

MaxSimil EPA and DHA were three times higher, reached maximum concentration faster, and maintained plasma levels longer than the EE EPA+DHA demonstrating enhanced bioavailability of the MaxSimil form.^[16] While there is no conclusive published evidence at this time, the results from studies conducted by the makers of MaxSimil provide a promising indication of enhanced absorption rates, and additional peer-reviewed research is warranted.*

In a placebo-controlled, study in healthy volunteers (n = 21) investigators examined the effect of omega-3 fatty acid (2.4g/day) supplementation on increasing biologically active SPMs over a seven-day period. After five days, concentrations of SPMs were effectively increased.^[7] This study and others contribute to the body of research supporting a role for omega-3 supplementation and may help explain their role in cardiovascular health.*^[2,3,6,7]

BCM-95[®] (Turmeric Extract)

While the beneficial effects of curcumin are hardly arguable, an area of intense research in recent years has been how to make curcumin more bioavailable. Poor absorption in the gastrointestinal (GI) tract, rapid metabolism, and rapid systemic elimination are typically characteristic of commercially available curcumin preparations. During the course of investigating a way to overcome these challenges, scientists discovered they could take advantage of the synergism between the curcuminoids and the sesquiterpenoids (essential oils) naturally present in turmeric.^[9] This discovery resulted in the development of BCM-95[®]—a 100% natural whole turmeric extract composed of curcuminoids (curcumin, demethoxycurcuminoid, and bisdemethoxycurcuminoid) and essential oils.*

In a pilot crossover study, Antony et al compared the bioavailability of three forms of curcumin: BCM-95, normal curcumin, and a non-controlled release curcumin-piperine-lecithin formula. The data demonstrated that the absorption of curcumin from BCM-95 was fast, it peaked at 4.5 hours with a gradual decline, and curcumin was still detectable in the blood at eight hours. The other formulas showed slower curcumin absorption with an earlier peak and rapid disappearance from the blood after 4.5 hours. The relative bioavailability of BCM-95 was approximately 6.93-fold higher than normal curcumin and 6.3-fold higher than the non-controlled release curcumin-lecithin-piperine formula. According to the researchers, the results of this study indicated that the BCM-95 curcumin was "absorbed early and retained longer" compared to other forms.*^[8]

The safety and efficacy of curcumin has been demonstrated in numerous animal, preclinical, and human studies. The mechanisms have not been fully elucidated, but it is known that curcumin has powerful antioxidant activity and that it has multiple molecular targets, including transcription factors, cell cycle proteins, cytokines, chemokines, enzymes (e.g., COX-2), receptors, and adhesion molecules.*

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

The authors of a meta-analysis of eight randomized clinical trials (RCTs) examining the efficacy of turmeric extract in reducing discomfort in subjects with osteoarthritis suggested that although more rigorous and larger studies are needed for confirmation, the RCTs provided scientific evidence to support the efficacy of turmeric extract (approximately 1000 mg/day of curcumin) for easing occasional discomfort and supporting overall joint health.*^[17]

There is also growing evidence for the role of curcumin products in the management of functional GI disorders. A review of studies in patients with Crohn's disease suggests curcumin is complementary to support a reduction in C-reactive protein, interleukin-1, and tumor necrosis factor-alpha, all symptomatic markers.*^[18,19]

Regarding cardiovascular health, a meta-analysis of 20 randomized controlled trials (n = 1427) revealed a significant decrease in serum triglycerides and elevation of HDL cholesterol.^[20] Additionally, it is well-established that type 2 diabetes is a risk factor for cardiovascular health. In a 12-week randomized placebo-controlled trial in type 2 subjects (n = 118), supplemental curcumin (1000 mg/day) led to significant reduction in serum total cholesterol, non-HDL cholesterol, and lipoprotein(a).*^[21]

Omega MonoPure® Curcumin EC Supplement Facts

Serving Size: 1 Softgel

	Amount Per Serving	%DV
Calories	5	
Total Fat	0.5 g	1%†
MaxSimil® Fish Oil Concentrate	600 mg	**
Total Omega-3 Fatty Acids	417 mg	**
EPA (eicosapentaenoic acid)	276 mg	**
DHA (docosahexaenoic acid)	120 mg	**
BCM-95® Turmeric Extract (<i>Curcuma longa</i>)(rhizome)(95% total curcuminoids complex, including curcumin, curcuminoids, and volatile oils)(86% curcuminoids)(65% curcumin)	125 mg	**

† Percent Daily Values are based on a 2,000 calorie diet.
** Daily Value (DV) not established.

Other Ingredients: Softgel (fish gelatin, vegetable glycerin, purified water, and carob extract), yellow beeswax, sunflower lecithin, GRAS enteric coating (ethylcellulose, sodium alginate, ammonium hydroxide, purified water, medium-chain triglycerides, oleic acid, and vegetable stearic acid) and mixed natural tocopherols.

Contains: Fish (anchovy and/or sardine and/or mackerel [sources of fish oil] and tilapia [source of fish gelatin]).

DIRECTIONS: Take one softgel twice per day, or 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, yeast, soy protein, dairy products, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

BCM-95® is a registered trademark of Dolcas Biotech LLC.

Manufactured using MaxSimil® fish oil. MaxSimil® is a registered trademark of Ingenutra Inc. Protected under US patents 8,119,690 and 8,198,324; Canadian patents 2672513 and 2677670.

IFOS™ certification mark is a trademark of Nutrasource Diagnostics Inc.

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Additional references available upon request

All XYMOGEN® Formulas Meet or Exceed cGMP Quality Standards.

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