



**Nutritional support for healthy weight management, balanced glucose levels and overall metabolic health**

## APPLICATIONS / BENEFITS

- Supports healthy body composition
- Promotes lean tissue mass and body fat reduction
- Supports cardiovascular health
- Modulates body's inflammatory response
- Promotes joint comfort and immune health

## OVERVIEW

**Patient One Metabolic Care** supplies a synergistic combination of Omega-3 fish oil (EPA/DHA), conjugated linoleic acid (CLA) and borage oil (providing GLA). This proprietary blend combines a healthy ratio of Omega 3 and Omega 6 essential fatty acids, formulated to support increased lean muscle mass and reduced body fat, while also promoting glucose balance and cardiovascular and immune health.

Dietary fats are important for the production of cell membranes and receptors along with hormone and immune messengers that regulate cardiovascular and insulin function and healthy inflammatory response. Common western diets often result in an imbalance in n-6:n-3 consumption, with high concentrations of saturated fatty acids and low omega 3 long-chain polyunsaturated fatty acids, resulting in poor glucose utilization and greater accumulation of body fat. Supplementation with a proper ratio of fatty acids may be beneficial to restore a healthful balance and enhance metabolic function.

## KEY INGREDIENTS

### Omega 3 Fish Oil:

Omega-3 fatty acids EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid) are the two most studied fish oils. Most notably recognized for their beneficial effect on cardiovascular health, Omega-3s have also been shown in studies to be beneficial for balancing healthy glucose levels, inflammation modulation and brain health. A growing body of evidence indicates that regular consumption of these fatty acids can influence fat metabolism and have the potential to promote lean tissue accretion as a means for obesity reduction.

Research indicates that increasing dietary intake of Omega 3s may assist with body weight and body fat reduction by multiple mechanisms. One mechanism is through an enhancement of satiety which might lead to reduced food intake. Another mechanism, and one for which there is the most evidence, is through changes in the expression of genes involved in the regulation of fat oxidation in adipose, liver, cardiac, intestinal and skeletal muscle tissue, and in the regulation of adipogenesis in adipose tissue. These effects on gene expression favor enhanced fat oxidation and reduced fat deposition. Data from a

number of studies also suggest that long chain Omega 3s might promote increases in lean tissue mass, thus potentially increasing metabolic rate and indirectly assisting with body fat reduction.

### Conjugated Linoleic Acid (CLA):

A fatty acid found in small amounts in the human diet, CLA (conjugated linoleic acid) is among the most extensively studied weight management nutrients. While its exact mechanisms of action have not been pinpointed, CLA is believed to inhibit the "hunger hormone" leptin, promote lipolysis in white adipose tissue, influence insulin sensitivity, reduce fasting blood glucose and optimize resting metabolic rate. CLA is most commonly associated with lean body mass and healthy body composition. Clinical research has shown that supplementation with conjugated linoleic acid has helped to reduce body fat mass. CLA also supports immune health and normal lipid levels.

While CLA is primarily found in dairy products and beef fat in the diet, the CLA in our formula is derived from pure, non-GMO safflower oil.

### Borage Oil:

Borage oil, extracted from the seeds of the borage plant, is nature's richest source of gamma-linolenic-acid (GLA), a unique omega-6 fatty acid. Very little GLA is consumed in the diet, found only in a few plant-specific oils. GLA is known for a variety of health-supportive properties, including lipid metabolism and the maintenance of skin health. It is an important precursor of prostaglandin E1, a compound that supports blood flow and vascular health. GLA promotes healthy immune mediator activity in tissues and maintains healthy arachidonic acid metabolism, actions that provide potential support for joint comfort and skin health. Gamma-linolenic-acid also appears to play an important role in nerve health.

In addition, research has indicated that GLA can help prevent weight regain after weight loss. The precise mechanism by which GLA suppresses weight regain needs to be determined but is most likely due to increased arachidonate (ARA) production and incorporation into tissue lipid pools. Potential pathways through which ARA might influence cellular disposition of dietary fuel are many and include improved

peripheral glucose disposal via enhanced insulin sensitivity, downregulation of lipogenesis, upregulation of lipid oxidation, and increased leptin secretion. There is also the possibility that the mechanism of action of GLA on weight change involves its immediate elongation product, DGLA, which also increased significantly in adipose due to GLA supplementation.

## RESEARCH

- Studies in animals and humans have indicated that long-chain omega 3 polyunsaturated fatty acids potentially elicit a number of effects which might be useful for reducing obesity, including suppression of appetite; improvements in circulation which might facilitate nutrient delivery to skeletal muscle and changes in gene expression which shift metabolism toward increased accretion of lean tissue; enhanced fat oxidation and energy expenditure; and reduced fat deposition.

- A study showed that fish oil supplements and regular exercise both reduce body fat and improve cardiovascular and metabolic health. It was concluded that increasing intake of Omega 3 fatty acids could be a useful adjunct to exercise programs aimed at improving body composition and decreasing CVD risk.

- In a preliminary human study involving 60 overweight subjects, conjugated linoleic acid supported healthy body fat mass. Several animal studies explore possible mechanisms of CLA, including the ability to maintain healthy fat deposition, promote lipolysis in adipocytes, moderate energy intake, and maintain healthy energy expenditure and metabolic rate.

- In a randomized, placebo-controlled trial, 45 formerly obese women and men were randomly assigned to treatment with GLA in the form of borage oil or to a control group given olive oil with the following results:

**Weight regain**—After the first year, the GLA group’s body weight did not change, whereas the control group gained weight. Between 15 and 33 months, when all subjects were receiving GLA, the weight regains did not differ between the GLA-GLA and Control-GLA groups.

**Fat regain**—During the first year, fat weight did not change in the GLA group, whereas fat weight increased in the control group. Fat re-gain between 15 and 33 months was similar in the GLA-GLA and Control-GLA groups.

## REFERENCES

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## Supplement Facts

**Serving Size:** 2 Capsules

**Servings Per Container:** 120

### Amount Per Serving

Omega 3 Fish Oil [Providing 36% EPA (Eicosapentaenoic acid) (260 mg) and 24% DHA (Docosahexaenoic acid)(173 mg)]	722 mg*
Conjugated Linoleic Acid Oil [derived from Safflower oil] [Providing min. 80% CLA]	250 mg*
Borage Oil ( <i>Borago officinalis</i> ) [Providing min. 23% gamma linolenic acid (GLA)]	80 mg*

\* Daily Value not established

**Other Ingredients:** gelatin (capsule), d-alpha tocopheryl acetate oil, rice bran oil, clear enteric coating (purified water, ethylcellulose, ammonium hydroxide, medium chain triglycerides, oleic acid, sodium alginate, purified stearic acid)

**Contains:** fish (anchovies, mackerel, sardines)

**Free of:** milk, egg, peanuts, crustacean shellfish, soy, tree nuts, wheat, yeast and gluten. Free of ingredients derived from GMOs.

**Suggested Use:** Take 2 capsules daily as a dietary supplement, preferably with a meal, or as directed by your health practitioner. May take up to 6 capsules daily. Store in a cool, dry place.

**Caution:** Consult with health practitioner before using this product if you use blood thinners or anticipate surgery. If you are pregnant, nursing, or taking any medications, consult your health practitioner before use. Discontinue use and consult your health practitioner if any adverse reactions occur. **Keep out of reach of children.**

Gluten Free

Non-GMO

Gelatin Caps

The statements in this document have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

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