

# **Enflamen**<sup>™</sup>



Natural inflammation-modulating blend of standardized botanical extracts, potent antioxidants and Omega-3 fatty acids

## APPLICATIONS / BENEFITS

- Modulates inflammation throughout the body
- Promotes soothing comfort in joints and connective tissues
- Optimizes flexibility, range of motion and mobility

### **OVERVIEW**

Patient One Enflamen™ mediates activity of pro-inflammatory prostaglandins and enzymes with a broad range of standardized botanical extracts, antioxidants and omega-3 fish oil. Enflamen's comprehensive nutritional support modulates inflammation throughout the body while promoting targeted, soothing comfort in the joints and connective tissue. Additionally, Enflamen supports effective functioning of macrophage immune cells and enhances the body's natural defense system.

#### **KEY INGREDIENTS**

Omega-3 Fish Oil: Polyunsaturated fatty acids (PUFAs) possess potent immunomodulatory activities. The eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) found in Enflamen influence production of beneficial eicosanoids that modulate inflammatory responses but are also believed to act upon gene expression and intracellular signaling pathways to promote normal immune responses.

Meriva® Turmeric Phytosome™'s active constituent curcumin acts as an orchestrator of whole body inflammatory responses, influencing pro-inflammatory COX enzymes, their transcription factors and gene expression. However, turmeric's absorption is poor. Meriva, a patented Phytosome delivery form of curcumin, binds turmeric's curcuminoids to phosphatidylcholine to enhance oral absorption and bioavailability by up to 29X. The improved oral bioavailability of curcumin as Meriva® has been translated into clinical efficacy for addressing the natural inflammatory response function at dosages significantly lower than those associated with uncomplexed

Boswellin™, a patented extract of Boswellia serrata, is a mainstay of Chinese and Ayurvedic wellness traditions found to stabilize mast cells, inhibit synthesis and modify release of proinflammatory mediators. Boswellia serrata also appears to work as a non-redox inhibitor of 5-lipoxygenase enzymes.

Ginger: Used since antiquity, Zingiber officinale and has demonstrated therapeutic benefits for joint and muscular discomfort. The anti-inflammatory effect of ginger has been

scientifically proven by its potential inhibitory effect in prostaglandin reducing synthesis leukotriene and biosynthesis.

**Rosemary extract's** key component, rosmarinic acid, increases the production of anti-inflammatory signaling molecules while reducing the production of pro-inflammatory leukotrienes. It also inhibits a key step of the complement system, an alternate pathway of inflammation. The antioxidant properties of rosemary can help reduce cellular damage caused by free radicals that are released during the inflammatory process.

Ashwagandha (Withania somnifera), an important medicinal plant used in traditional Indian medicine, has an anti-inflammatory effect believed to be due to its alkaloid and withanolide contents.

Barberry root appears to have anti-inflammatory activity, believed to be mediated by its alkaloid constituent, berberine. Preliminary research suggests that berberine blocks production of the pro-inflammatory cytokines interleukin-1 (IL1)-beta and tumor necrosis factor (TNF)-alpha by blocking nuclear factor-kappaB, the transcription factor responsible for regulation of cytokine production.

Black Cumin Oil: Low concentrations of the constituent nigellone have been shown to inhibit the release of histamine from mast cells in animals. Black [cumin] seed is thought to have immune-protectant effects. Evidence suggests it may enhance the production of certain human interleukins and alter macrophages.

Bromelain's anti-inflammatory action is in part a result of inhibiting the generation of bradykinin at the inflammatory site via depletion of the plasma kallikrein system, as well as limiting the formation of fibrin by reduction of clotting cascade intermediates. Research suggests that bromelain reduces leukocyte migration into inflamed areas and prevents firm adhesion of leukocytes to blood vessels at the site of inflammation.

Holy basil extract (Ocimum sanctum) seems to have both central and peripheral analgesic activity. Constituents of the

leaves and stems of holy basil appear to inhibit the cyclooxygenase (COX) pathway of arachidonic acid metabolism.

**Polygonum cuspidatum extract:** An active component from the roots of *Polygonum cuspidatum* has been reported to exhibit anti-inflammatory properties. Research indicates that emodin is a potent inhibitor of NF-kappa B activation and expression of adhesion molecules and thus may be useful in treating various inflammatory conditions.

**Scullcap herb powder** has been used to treat inflammatory-related disorders in China and Japan for centuries. The plant root has a particularly high flavonoid content (over 35%) giving it a yellow color, hence its traditional name of golden root. These flavonoids selectively inhibit enzymes in the arachidonic acid cascade as well as possess antioxidant, antiviral, antiretroviral, antibacterial, and sedative properties.

**Capsimax**® is a proprietary matrix that supplies chili peppersourced capsaicinoids without gastrointestinal side effects. Capsimax's capsaicinoids promote soothing whole-body comfort that complements Enflamen's inflammation-modulating activity.

#### **RESEARCH**

- In a double-blind, randomized, placebo-controlled trial, 30 kidney problem patients were given either fish oil (960 mg/d of EPA and 600 mg/d of DHA) or placebo daily for six months. At trial's end, the fish oil group was found to have a significant reduction in C-reactive protein (CRP) levels as compared to placebo group.
- In a trial investigating Meriva® efficacy in promoting comfort, researchers found in patients taking Meriva, global WOMAC pain score decreased by 58% and walking distance improved from 76m to 332m. In the control group, WOMAC decreased by 2% and walking improved from 82m to 129m.
- In a randomized, double-blind, placebo-controlled crossover study, Boswellia serrata extract was found to reduce knee pain and increase knee flexibility.

#### **REFERENCES**

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Supplement Facts

| Serving Size: 3 Capsules Servings Per Container: 30   |                         |           |
|---|-------------------------|-----------|
| Amount Per Serving  |                         | % DV*     |
| Calories  | 13                      | <2 %      |
| Total Fat   | 1 g                     | <2 %      |
| Saturated Fat   | 0.2 g                   | <2 %      |
| Monounsaturated Fat   | 0.2 g                   | **        |
| Polyunsaturated Fat   | 0.6 ე                   | **        |
| Total Carbohydrates   | 0.5 g                   | <2 %      |
| Other Carbohydrates   | 0.5 დ                   | **        |
| Omega 3 fish oil [Providing 36% EPA (Eicosapentaenoic acid) (360 mg) and 24% DHA (docosahexaenoic acid) (240 mg)]   | 1000 mg                 | **        |
| D-Limonene  | 250 mg                  | **        |
| Rosemary extract ( <i>Rosmarinus officinalis</i> ) (leaves) [Standardized carnosic acid (6 mg), 1% rosmarinic acid (1 mg), 1.5% ursolic acid                  |                         | **        |
| Meriva® Phytosome Tumeric Complex (Curcuma longa rhizome/G soybeans) [standardized to 18-22% curcuminoids (18-22 mg)]   | lycine max 100 mg       | **        |
| Ashwagandha extract ( <i>Withania somnifera</i> ) (roots) [Standardized for 1.0% to (0.5 mg), 1.5% total withanolides (0.75 mg), and 0.25% total withaferin-A |                         | **        |
| Barberry extract ( <i>Berberis ssp</i> ) (bark/root bark) [Standardized for 6 Berberine (1.5 mg)]   | 5% 25 mg                | **        |
| Black Cumin Oil (Nigella sativa) (seed)   | 25 mg                   | **        |
| Boswellin® Boswellia serrata (resin) extract [Standardized for 70% total organic acids (35 mg), 20% b-boswellic acids (10 mg)]                                | 50 mg                   | **        |
| Bromelain (from pineapple) (2400 gelatin digestive units per gram)  | 25 mg                   | ·**       |
| Capsimax® Capsicum Extract (Capsicum annum L) (fruit) [Standardized to minimum 2% Capsaicinoids (0.5 mg)]   | 25 mg                   | **        |
| Coptis chinensis extract (root) [Standardized for 5% Berberine (1.2   | 25 mg)] 25 mg           | **        |
| Ginger root extract (Zingiber officinale) [Standardized for 5% ginger   | ols (5 mg)] 100 mg      | ·**       |
| Holy basil extract (Ocimum sanctum) (leaf) [Standardized for minimum 2.5% Ursolic   | : Acid (2.5 mg)] 100 mg | **        |
| Green tea extract ( <i>Camellia sinensis</i> ) (dried leaves) [Standardized 98% Polyphenols (98 mg), 45% Epigallocatechin-3-P-gallate (45 mg)                 |                         | **        |
| Polygonum cuspidatum extract (root) [Standardized to 50% trans-Resveratr  | ol (12.5 mg)] 25 mg     | **        |
| Oregano 4:1 extract ( <i>Origanum vulgare</i> ) (herb)  | 25 mg                   | **        |
| Scullcap herb powder (Scutellaria lateriflora L.)   | 25 mg                   | **        |
| * Daily Values based on 2,000 calorie diet.   | ** Daily Value not esta | ablished. |

Other Ingredients: vegetable cellulose, chlorophyll

Contains: fish (anchovy, mackerel, sardines) and non-GMO soy

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

**Suggested Use:** Take 3 capsules daily as a dietary supplement, or as directed by your health practitioner. Store in a cool, dry place.

**Caution:** 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.** 

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Gluten Free

Non-GMO

Vegetable 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.

