

# TOTAL INFLAM

**Ingredients:** Each Tablet Supplies: Boswellia Serrata (70% Boswellia Acids Standardized) 50mg, Turmeric (95% Curcuminoids Standardized) (herb) 30mg, Ginger (5% Gingerols Standardized) (herb/root) 20mg, Cayenne (fruit) 1mg, Lemon Bioflavonoids 20 mg, Lipoic Acid 1mg, Quercetin 5 mg, Glutathione 2mg, Silymarin Extract 80% (20% Silybin Standardized) 5mg, Milk Thistle (leaf/seed) 50mg.

**Supportive Function:** Natural substances that have reported anti-inflammatory effects, with decades of anecdotal history. For joint and ligament support we recommend you add TOTAL CMO.

**When are inflammatory herbs helpful?** Any site of inflammation, trauma, surgery, swelling, redness, acute arthritis pain, ovarian cysts, sinus infections, etc.

**Clinical Applications/Research:** **Ginger** is an herb known mostly for its therapeutic effect in nausea. Ginger also has powerful abilities to combat inflammation, and these anti-inflammatory effects are well backed by scientific studies. Ginger contains phenolic compounds that inhibit the enzymes responsible for generating important mediators of pain and inflammation in more than one pathway (Kiuchi et. al. Inhibition of prostaglandin and leukotrienes biosynthesis by gingerols and diarylheptanoids. Chem Pharm Bull. 1992; 40:387-91).

**Turmeric** is a root belonging to the ginger family, in which the rhizome part is used in many flavorings but most noticeably in curry powder. Research has demonstrated excellent anti-inflammatory and antioxidant properties of turmeric, and especially of curcumin, which is the active component of turmeric that is responsible for the yellow pigment (Reddy AP & Lokesh, BR. Mol Cell Biochem. 1992; 111-117). The anti-inflammatory properties are due to the ability of curcumin to reduce histamine levels and possibly increase natural cortisone production by the adrenal glands (Aora RB, Basu N, Kapoor V, Jain AP. Anti-inflammatory studies on Curcuma longa (turmeric). Ind.J.Med Res. 1971;59:1289-95).

**Milk thistle** has always had a strong reputation for supporting liver function and pathways of detoxification. Removal of wastes and toxins is crucial in decreasing inflammation. Silymarin, which is one of the main ingredients in milk thistle, has an anti-inflammatory effect on blood platelets (Altorjay I et al. Acta Physiol Hung 1992; 80:375-80), and the ability to inhibit free radical production and leukotrienes synthesis means that it prevents the powerful, inflammatory leukotrienes from wreaking havoc in the body (Alarcon de la Lastra, C. et al. Planta Medica 1995; 61:116-119; Fiebrich F and Kock H. Experientia 1979; 35:148-150).

**Boswellia serrata** is reported to have strong analgesic (pain-relieving) effects (Kar, A. & Menon, M.K. Life Sci. 1969; 8:1023), along with anti-inflammatory and antiarthritic activity. Clinical trials in India report beneficial results on arthritic patients, and boswellic acids are marketed as antiarthritic drugs in India (Handa, S.S. et al. Fitoterapia. 1992; 63(1): 3).

**Bioflavonoids** are plant nutrients with healthful properties. Bioflavonoids in general operate to stabilize cell membranes, decrease the release of inflammation mediators, inhibit the inflammatory process, decrease the contraction of smooth muscle (Amella et al. Inhibition of mast cell histamine release by flavonoids and bioflavonoids. Planta Medica 1985; 51:16-20), as well as improve capillary integrity (decrease permeability) and stabilize the collagen matrix by preventing free radical damage (Merck Index, 11th ed. 1989, Merck & Co. Rahway, New Jersey, p.1243).

**Quercetin** is a potent bioflavonoid - in fact, it has been named, "the most important flavonoid" by a leading peer-reviewed journal (Nutr. Cancer 1993, 20:21-9). It is a powerful antioxidant, and Michael Murray suggests that, "quercetin appears indicated in virtually all inflammatory and allergic conditions" (Murray, M. Encyclopedia of Nutritional Supplements, 1996, Prima Publ., Rocklin, Ca. p. 327).

**Lipoic acid** is an excellent antioxidant that also binds heavy metals and toxins, thereby removing many of the substances that can cause and/or aggravate inflammation.

**Testimonials/Nutrient Tidbits:** Many doctors report...this product is great for chronic inflammation.

**Suggested Dosage:** 1-2 tablets 3 times daily or as directed

**Size:** 90 tablets

**Vegetarian:** Yes

**Contraindications:** None known.