

Protocol for Nutritional **PAIN MANAGEMENT** Support

Practitioner Information - Protocol For Life Balance™ Supplements

Pain management can involve a variety of modalities to match the different components often found in discomfort. Dysregulation of cytokines and other inflammatory factors must be addressed in chronic pain. Inappropriate production of adhesion molecules and a failure to properly renew tissues may also be at work. The individual components below can be combined as a protocol for more complete support.

Ultra Omega-3 (Molecularly Distilled)

Omega-3 Fatty Acids (FAs) found in fish oils are widely recognized for a variety of health benefits. The most important omega-3 fatty acids are eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). Studies have demonstrated that omega-3 FAs are important in numerous signaling pathways. Most notably, EPA is a precursor of certain prostaglandins and leukotrienes, molecules that are involved in modulating inflammatory responses. These two classes of signaling molecules are critical for the maintenance of cardiovascular health and immune system function. Moreover, long-chain omega-3 fatty acids from fish oil decrease the production of inflammatory cytokines and eicosanoids. These fatty acids act both directly (by replacing arachidonic acid as an eicosanoid substrate and by inhibiting arachidonic acid metabolism) and indirectly (by altering the expression of inflammatory genes through effects on transcription factor activation) (3).

Even at levels of intake that do not significantly modulate cytokine levels, omega-3 fatty acids can positively influence plasma concentrations of soluble vascular cell adhesion molecule-1 and soluble E-selectin, factors important to endothelial function (4). Recent clinical studies have emphasized the beneficial impact of omega-3s on serum lipid metabolism. The FDA allows the claim that the consumption of omega-3 fatty acids may reduce the risk of coronary heart disease.

Cautions and interactions

Omega-3 fatty acids may interact with aspirin or warfarin. In addition, omega-3 fatty acids may interact with cholesterol-lowering statin medications. Omega-3 fatty acids may be used as a dietary supplement if taking certain medications, including cyclosporine, and may interact with topical corticosteroid treatment.

Serrazimes®

Serrazimes® is a proteolytic blend composed of enzymes derived from the edible fungi, *Aspergillus oryzae* and *Aspergillus melleus*. When taken on an empty stomach, Serrazimes® can be absorbed into the bloodstream. Studies have shown that Serrazimes® may help to break down fibrin and other proteins that are produced in response to inflammation. Therefore, Serrazimes® may temporarily lessen minor pain and help to maintain a healthy inflammatory response. Serrazimes® may also help support the Immune System and promote a healthy response to external stresses. Serrazimes® is safe and effective when used as directed, providing enzymatic activity equivalent to Serrapeptidase (aka, Serrapeptase).

Cautions and interactions

In studies, proteolytic enzymes are believed to have proven to be quite safe, although they can occasionally cause digestive upset and allergic reactions.

D-Flame™

D-Flame™ is a synergistic blend of herbs (including turmeric, holy basil, boswellia, and others) that can reduce the occasional minor pain resulting from over-exertion or stress. Therefore, D-Flame™ is an all natural product that can be part of a nutritional program for pain management. Protocol for Life Balance™ D-Flame™ contains a potent combination of herbal ingredients that contribute to heart health, joint comfort, and balanced inflammatory response.

Turmeric is best known for its active constituent, curcumin, a plant source of powerful antioxidants and free radical scavengers. However, the benefit to joint health may not be antioxidant-dependent. Researchers are probing the mechanism(s) by which curcumin inhibits the growth of synovial adherent cells (5).

Suppression of cell signaling intermediaries plays a major part in the actions of plant compounds in achieving the re-regulation of inflammatory cytokines, etc. (6) Boswellia extracts have an excellent clinical record of efficacy and safety (7, 8). Ginger is another Indian herb that classically has been employed to influence inflammatory processes.

Baikal skullcap contains a number of active flavonoids (chemicals that have a wide range of effects in the body). Two of its flavonoids, baicalin and wogonin, are generally believed to help the body maintain healthy inflammatory responses. It has been shown to contribute to the in vivo regulation of inflammation-associated gene expression.

Cautions and interactions

This product contains some compounds that may interact with NSAIDs, anticoagulant, and anti-platelet medications. Also, consult your physician regarding the possibility of discontinuing use of this supplement prior to having any surgical procedures.

Celadrin® Joint Liposome Lotion

Celadrin® is an all-natural fatty acid complex that has been shown to provide support for healthy joints. As demonstrated in clinical studies, Celadrin® Joint Liposome Lotion supports healthy joint mobility, as well as overall joint function without dangerous side-effects. Scientific studies have shown that Celadrin® Joint Liposome Lotion is safe, well-absorbed, and easily utilized by the body (1, 2).

Cautions and interactions

There are no known drug interactions with Celadrin®.

Additional Support

Bromelain, BioCore™ Enhanced Enzymes™, MSM, Curcumin, 95% Extract

Additional enzyme support may prove to be useful. Bromelain aids the productive turnover of tissues, leading to a clearance of damaged cells and faster tissue renewal. BioCore™ Enhanced Enzymes™ offer yet another source of support for the actions of Serrazimes®.

Methylsulphonylmethane (MSM) is a concentrated source of organic sulfur. It has been shown to share some beneficial pathways with aspirin and more generally to support the regeneration of connective tissues.

Curcumin, an active found in D-Flame™, can be added separately for additional benefit.

Ultra Omega-3 (Suggested: 4 softgels or 1 tsp. Liquid Omega-3 daily)	_____ X _____
Serrazimes® (Suggested: 1 twice daily)	_____ X _____
D-Flame™ (Suggested: 2-4 daily)	_____ X _____
Celadrin® Joint Liposome Lotion (Suggested: apply as needed)	_____ X _____
Additional Support Products:	
Bromelain (Suggested: 1-2 daily, empty stomach)	_____ X _____
BioCore™ Enhanced Enzymes™ (Suggested: 1-2 daily, empty stomach)	_____ X _____
MSM (Suggested: 1 three times daily)	_____ X _____
Curcumin, 95% Extract (Suggested: 1-2 daily, with meals)	_____ X _____

Please note the instructions, cautions and interactions on each product package, and begin each new product separately, in turn. Use only under the supervision of a qualified health practitioner.

These statements have not been evaluated by the FDA. These products are not intended to diagnose, treat, cure or prevent any disease.