Protocol for Nutritional **ARTERIAL/CHOLESTEROL** Support

Practitioner Information - Protocol For Life Balance™ Supplements

This protocol focuses on supporting regulatory mechanisms that underlie functional control of inflammatory factors and blood lipids. The individual components can be combined 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 (1). These two classes of signaling molecules are critical for the maintenance of cardiovascular health and immune system function. 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 (2). 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.

Ortho-E™

Vitamin E is essential for maintaining the integrity, function, and flexibility of cell membranes. Vitamin E is also an important fat-soluble antioxidant. This formula supplies all four major dietary tocopherols, *alpha-, beta-, gamma-,* and *delta-*. This is important in that emerging research demonstrates that gamma-tocopherol serves to detoxify and remove reactive nitrogen species (RNS) from the body (3, 4). RNS are especially destructive forms of free radicals.

This formula also supplies selenium, a trace mineral that works with vitamin E and the glutathione system. Selenium long has been known to complement the actions of vitamin E, including antioxidant-sparing effects (5). Aside from its antioxidant properties, vitamin E, including in conjunction with selenium, may support normal cell division and immune health, influence blood coagulation speed, and provide protection to neural tissues.

Cautions and interactions

Adverse reactions to vitamin E supplementation at the suggested level of intake are very rare. May interact with anticoagulant therapy.

Flush Free Niacin

Niacin is a water-soluble B vitamin; its main role is to serve as a precursor for two essential biochemical coenzymes, nicotinamide adenine dinucleotide (NAD) and NAD phosphate (NADP). Niacin has been shown to have a number of beneficial effects on lipid and cholesterol transport, and thus is important for the maintenance of healthy serum lipid levels (6). Inositol hexanicotinate is a stable, non-flushing source of niacin.

Cautions and interactions

Niacin has a good safety profile in most populations; however, there are some notable exceptions (6). High dose niacin has been associated with liver inflammation. Although some reports suggest that it occurs most commonly with slow-release niacin, it can occur with any type of niacin when taken at a daily dose of more than 500 mg (usually 3 g or more). Regular blood tests to evaluate liver function are therefore mandatory when using high-dose niacin (or niacinamide or inositol hexaniacinate). The antituberculosis drug isoniazid (INH) may increase the need for niacin.

Those with liver disease, ulcers (presently or in the past), gout, gallbladder disease, or who drink too much alcohol should not take high-dose niacin except on medical advice. Combining high-dose niacin with statin drugs may affect the cholesterol profile. This combination therapy could cause the potentially fatal condition rhabdomyolysis, and should be attempted only under the supervision of a physician.

Niacin may interfere with the absorption of tetracycline and therefore the two should be taken at different times of the day.

Sytrinol® Cholesterol Formula

Sytrinol® is a proprietary formula consisting of polymethoxylated flavones (PMF's) from citrus, palm tocotrienols and other proprietary constituents. Studies have shown that Sytrinol® helps maintain cholesterol and triglyceride levels already within the healthy range. Sytrinol® Cholesterol Formula also contains policosanol, a blend of long-chain fatty alcohols (LCFA) derived from sugar cane, for its synergistic effect. Milk thistle and alpha-lipoic acid have been included for their antioxidant and liver-supportive effects.

Cautions and interactions

No drug interactions have been reported for Sytrinol®. However, Policosanol may interact with anticoagulant and anti-platelet medications.

CoQ10

CoQ10, also called ubiquinone or CoEnzyme Q10, is present in almost all cells, and is necessary for mitochondrial energy production. The body's highest concentrations of CoQ10 are found in the heart, where constant chemical energy availability is imperative. In addition to its benefits for cardiac function through energy production, CoQ10 also acts as a powerful fat-soluble antioxidant that provides protection against free radical attack of vascular structures and other tissues.

Cautions and interactions

CoQ10 may interact with the anticoagulant effect of warfarin. In addition, CoQ10 may interact with certain blood pressure medications, including diltiazem, metoprolol, enalapril, and nitrate. Statin medications have been shown to decrease CoQ10 levels in the body and CoQ10 supplementation may be beneficial when taking these drugs (7).

Additional Support

Curcumin, Pantethine, Red Yeast Rice

Curcumin possesses potent antioxidant activity, as well as the ability to help the body maintain balanced inflammatory responses. It works well with Pantethine, which help to positively modulate lipid metabolism. Red Yeast Rice is an option based on traditional usage.

References available at www.protocolforlife.com

Ultra Omega-3 ____ X ____
(Suggested: 4 softgels or 1 tsp. Liquid Omega-3 daily)

Ortho-E™ ____ X ____
(Suggested: One or two daily with meals)

Flush Free Niacin ____ X ____
(Suggested: 500 mg 2x daily with meals)

Sytrinol® Cholesterol Formula ____ X ____
(Suggested: One 2-3 times daily)

CoQ10, 600 mg ____ X ____
(Suggested: One daily)

Additional Support Products:

Curcumin ____ X ____
(Suggested: 1 Vcap® 2 to 3 times daily, preferably with meals)

Pantethine ____ X ____
(Suggested: 1 softgel 2 to 3 times daily, preferably with meals)

Optional products:

Red Yeast Rice ____ X ____
(Suggested: 600 mg twice daily)

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.