



Flax Seed Oil

Stock #3162-1 (8 fl. oz.)

Flax seed oil, an excellent source of essential fatty acids (EFAs), has been praised for its beneficial effects in the treatment of more than 60 major health concerns, including allergies, breast pain/tenderness, cancer, cystic fibrosis, diabetes, heart disease, intestinal disorders, menopause, neurological diseases, chronic skin problems and autoimmune disorders such as lupus, multiple sclerosis and rheumatoid arthritis.¹⁻⁴

EFAs, which are not produced by the body and must be supplied in the diet, are necessary for the production and balance of prostaglandins—hormone-like substances that regulate all cellular processes within the body. Prostaglandins influence every aspect of human health, including functions of the cardiovascular, immune, reproductive and central nervous systems. EFAs also construct cell membranes, helping to protect cells from allergens, bacteria, viruses and circulating toxins. EFA deficiency can lead to a number of chronic disorders such as allergies, arthritis, cancer, immunological diseases and cardiovascular disease. In fact, numerous studies confirm that EFA supplementation improves arteriosclerosis, lowers blood pressure, restricts blood clot formation, reduces cholesterol and triglycerides, assists in preventing arthritis, slows the growth rate of breast cancer, produces energy, builds nerve sheaths, and improves eczema and psoriasis. In addition, EFAs (found in high amounts in the brain) are also essential for normal brain function and the regulation of mood and perception—EFA deficiency can reduce the number and size of brain cells and disrupt communication between brain cells, thus affecting growth, learning and thinking.²⁻⁶

Flax seed is one of the best sources of omega-3 EFAs. Omega-3 fatty acids contain a natural anti-inflammatory agent that helps relieve symptoms associated with eczema, psoriasis, rheumatoid arthritis, multiple sclerosis, ulcerative colitis and other inflammatory conditions. Omega-3 fatty acids are also beneficial for cardiovascular problems such as atherosclerosis, high blood pressure and hyperlipidemia. Recent research shows that omega-3 fatty acids also reduce blood levels of homocysteine—elevated homocysteine levels are a major risk factor for heart disease. Furthermore, European researchers have determined that omega-3 fatty acids can reduce cancerous tumors, as well as provide strong anti-cancer effects against breast, lung and prostate cancer cells.^{1-3,8-10}

Flax seed oil provides nature's richest supply of the omega-3 EFA alpha-linolenic acid. Flax seed oil is comprised of approximately 55% - 58% alpha-linolenic acid and contains more than twice the amount of omega-3 EFAs found in fish oils. Alpha-linolenic acid is converted in the body into eicosapentaenoic acid (EPA)—a precursor to the anti-inflammatory prostaglandin PGE₃. Alpha-linolenic acid is also particularly essential for healthy brain development—animal studies have confirmed permanent learning disabilities among adult offspring of mothers whose diets lacked sufficient alpha-linolenic acid. Perhaps most importantly, research from the *British Journal of Cancer* suggests that flax seed oil supplements may help inhibit breast cancer, tumor invasiveness and metastasis due to the oil's rich alpha-linolenic acid content. Study results confirm that low levels of alpha-linolenic acid were the most important contributor to the proliferation of cancer. These findings are highly significant since the primary cause of death in those with breast cancer is the spread of cancer to other tissues.^{1-4,6,7,10,11}

Flax seed oil is also rich in linoleic acid, comprising approximately 16% of the oil's fatty acid composition. Linoleic acid is an omega-6 fatty acid that has shown some benefit in the treatment of multiple sclerosis. Linoleic acid is converted into gamma-linolenic acid (GLA) and is a precursor for the prostaglandin PGE₁. Although primarily an anti-inflammatory agent, PGE₁ has also been found to improve numerous health problems ranging from PMS to schizophrenia.^{2,4,5,7}

In addition, flax seed oil contains lignans—plant fibers that are the dietary precursors to various human lignans. Plant lignans, such as those found in flax seed and other high-fiber foods, are converted by intestinal bacteria into powerful cancer-fighting compounds. A study reported in *Nutrition and Cancer* confirmed that a lignan precursor from flax seed—known as secoisolariciresinol diglycoside (SD)—significantly reduced mammary tumor development in rats. The researchers also noted that, in addition to their ability to disrupt cancer cell growth, SD and other lignans may offer long-term protective effects against tumor development. Lignans can affect tumor growth in several ways: they function as weak estrogens or anti-estrogens to inhibit the effects of estrogen and estrogen-like chemicals; they block the action of enzymes that promote breast cancer cell growth; and, they exhibit antioxidant effects that help reduce cancer development. Such estrogenic effects may explain why flax seed oil has been used effectively for reducing and relieving symptoms associated with PMS and menopause.^{8,12-14}

Each tablespoon serving of NSP's cold-pressed, organic Flax Seed Oil provides approximately 7,800mg of omega-3 EFAs and 2,000mg of Omega-6 EFAs (the equivalent of 14 soft gel capsules). NSP's Flax Seed Oil also contains rosemary leaves, mixed tocopherols, ascorbyl palmitate and citric acid, which serve as antioxidants to help prevent

oxidation and rancidity.

References:

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