Hi-Lipase™

Hi-Lipase is a digestive enzyme supplement that aids the body in breaking down dietary fats and oils, especially in individuals with poor liver and/or gallbladder function. Hi-Lipase is designed to improve digestion of high-fat foods, including nuts.

Lipase is a digestive enzyme that breaks down fat (lipids), including triglycerides (fats and oils), phospholipids (such as lecithin) and sterols (such as cholesterol). Research has shown that lipase improves fat digestion. It is also important to note that bile, which is stored in the gallbladder, helps emulsify fats and enables lipase to digest fats more efficiently. Furthermore, sufficient levels of lipase and bile salts are required for proper vitamin A absorption.1,2

Hi-Lipase provides plant-derived lipase, along with a unique blend of herbs and nutrients that increases the body’s production of salivary and digestive fluids, enhances liver and gallbladder function, and buffers stomach acid to ensure optimal lipase activity.

Each 2 capsules of Hi-Lipase provide 240 LU of lipase from plant sources in a base of:

**Red beet fiber** - Beets are reported to have anthepatotoxic (to protect the liver from toxins) effects. According to animal research, the inclusion of red beet fiber in the daily diet over a 14-week period resulted in a 30% reduction in serum cholesterol levels, a 40% reduction in triglyceride levels, and a significant increase in HDL cholesterol. In addition, research has shown that beets keep fat from depositing in the liver of rats, most likely due to the presence of betaine in beets. Betaine has a positive effect on fat metabolism in the liver and has been used as a lipotropic—a substance that prevents abnormal or excessive accumulation of fat in the liver—to prevent and treat non-alcoholic fatty liver disease. Furthermore, beet fiber is included in dietary supplements to support probiotic growth and to provide additional nutrients—beets are a source of vitamins B₁, B₂, B₆, C and E, beta-carotene, calcium, chromium, copper, folic acid, iron, magnesium, manganese, niacin, pantothenic acid, potassium, selenium, silicon and zinc.3-8

**Cellulose**, a form of dietary fiber, primarily decreases intestinal transit time, but may also contribute to the proliferation (growth) of bifidobacteria, a strain of intestinal flora that helps promote healthy digestion and immune function. A recent study found that the presence of both cellulose and red beet fiber in the diet of rats significantly reduced the incidence of precancerous lesions in the colon. Furthermore, results from a case-control study of patients with colorectal cancer confirmed a protective and independent effect of fiber on colorectal cancer, particularly for cellulose.4-9,11

**Potassium citrate** is an alkaline salt used in enzyme supplements to help maintain an optimal pH range, which facilitates enzyme activity. In addition, a recent study found that potassium citrate reduced bone resorption (bone-loss), thereby combating the potential adverse effects chronic acidemia (an over-acid condition) caused by protein-rich diets.1,12

**Caraway seed** is approved by the German Commission E for dyspeptic complaints (indigestion), and is also used for gastrointestinal cramps, flatusulence (intestinal gas), feelings of fullness and sluggish digestion. Caraway aids digestion by stimulating the release of digestive enzymes and by soothing the lining of the gastrointestinal tract. In addition, caraway seed contains a volatile oil that has been shown to have antimicrobial effects against certain bacteria.3,13-15

**Ginger root** contains various compounds that act as digestive stimulants, enhancing gall bladder activity and encouraging the production of digestive fluids and saliva. Ginger also improves gastric motility (movement through the digestive tract), while exerting antispasmodic (muscle-relaxing) effects to reduce intestinal cramping, thus confirming its use as a gastrointestinal tonic. In addition, animal studies have shown that ginger can prevent ulcer formation caused by aspirin and indomethacin (an anti-inflammatory drug). Furthermore, ginger helps reduce cholesterol levels and stimulates immune system function. Ginger is approved by the German Commission E for dyspepsia.3,16-18

**Gentian root** is approved by the German Commission E for digestive disorders related to insufficient production of gastric (stomach) juices, such as flatulence and feelings of fullness. The active principles in gentian are bitter substances that promote increased secretion of saliva and digestive juices, as well as bile, which helps emulsify fats. In fact, the taste of gentiopicrin and amarogentin, two of the most bitter compounds known, are reported to be detectable even when diluted as much as 50,000 times.15-16,18,19

**Fennel seed** is approved by the German Commission E for digestive disorders such as bloating, dyspepsia, feelings
of fullness and flatulence, as well as mild, spastic (cramping) gastrointestinal complaints (i.e. spastic colon, also known as irritable bowel syndrome). Fennel seed increases bile production and regulates the peristaltic functions of the gastrointestinal tract, thereby reducing enhancing gastric motility and increasing the passage of gas. In higher concentrations, fennel seed acts as an antispasmodic to relieve cramp-like pains in the gastrointestinal tract. The volatile oil in fennel seed is responsible for the herb’s ability to reduce intestinal spasms and cramping, and has also been shown to inhibit the growth of *Salmonella enteriditis*, which can cause of food poisoning. Furthermore, results of a recent study indicate that fennel seed oil has a potent hepatoprotective (liver-protecting) action against experimentally-induced liver damage in rats.\(^3,13,15-17,19-21\)

**Dandelion root** contains an abundance of bitter substances that increase gastric and salivary juice secretions and stimulate the release of bile from the gallbladder and liver. Dandelion is classified as a liver tonic because it increases the production and flow of bile to the gallbladder (a choleretic effect) and directly stimulates contraction of the gallbladder, thus causing the release of stored bile (a cholagogue effect). Results from animal and human studies have shown improvement with the use of dandelion root in gallstones, jaundice (a liver disorder that causes yellowing of the skin and the whites of the eyes), liver congestion, hepatitis (inflammation of the liver) and bile duct inflammation. In one study, dandelion root was used successfully to treat chronic, nonspecific colitis (inflammation of the colon), providing relief from abdominal pain, constipation and diarrhea. Dandelion root is approved by the German Commission E for dyspepsia and bile flow problems.\(^3,13,15-17,22\)

References: