

Vegetarian/Vegan

Fermented SOY ESSENCE™

with Digestive Enzymes Bromelain and Papain



The Next Generation in Soy Protein

- Predigested Soy Protein
- Enhanced Bioavailability of Isoflavones
- Assists Bone Preservation
- Promotes Intestinal Health
- Supports the Immune System
- Supports Cardiovascular Function

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increases the calcium level of soy products. The fermentation process also converts fortified calcium into the organic and more soluble form, calcium lactate. The fortified magnesium citrate is a more soluble form of magnesium which also exerts a positive influence on bone density.

Enhances Intestinal Health

The human gut harbors over 400 species of microorganisms, such as bacteria and fungi. Some of them are beneficial or neutral, whereas others are harmful. When there is an imbalance in these microorganisms, undesirable health conditions can result. During fermentation, probiotic bacteria produce beneficial metabolites, such as organic acids (lactic acids, etc.) and bacteriocins (bulgaricin, plantaricin, and lactacin). These metabolites play a significant role in maintaining intestinal microbial balance and in minimizing putrefactive by products.

Supports Immune System

Bacterial cell walls contain a group of substances called peptidoglycans. Studies have shown that these peptidoglycans help support immune function, as indicated by the stimulation of immunoglobulin production.

Supports Cardiovascular Function

The FDA has authorized the following health claim linking soy protein with a reduction in heart disease: "Diets low in saturated fat and cholesterol that include 25 grams of soy protein a day may reduce the risk of heart disease." One serving of **Fermented Soy Essence™** provides 11 grams of soy protein.

Superior Nutrition and FormulationSM by

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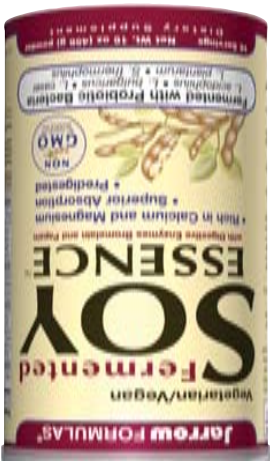
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One of the differences between soy protein and animal protein is that soy protein helps to conserve bone mass by reducing bone calcium loss. Replacing animal protein with soy protein has been shown to have a positive effect on bone density. However, soy protein itself is not a significant source for calcium. Calcium fortification during fermentation

Assists Bone Preservation

Because of this pre-conversion, the bioavailability of isoflavones in fermented soy is higher than it is in non-fermented soy products. In fact, studies have shown that the absorption of the unconjugated (aglycone) forms of isoflavones is 2-5 times greater than that of the conjugated (glycone) forms. The researchers T. Izumi, *et al*. (2000) demonstrated in a human study that the isoflavone aglycones are absorbed faster and in greater amounts than are their glycosides. At both 2 and 4 weeks of supplementation, the plasma concentration of isoflavones remained more than 100% higher in subjects ingesting the unconjugated aglycones than in subjects consuming the conjugated isoflavones.



Conjugated isoflavones are isoflavones that are bound to other compounds, usually sugars. As such, they are poorly absorbed. Intestinal bacteria can make these conjugated isoflavones more soluble (a process called hydrolysis) by reducing them to their unconjugated forms. In non-fermented soy foods, the isoflavones exist mostly as conjugates, whereas in fermented soy products such as fermented soy milk, the unconjugated aglycone forms dominate. The reason for this is that during the fermentation process, isoflavones are converted by bacteria in the culture from the glycone forms (genistin, daizin and glycitin), to aglycone forms (genistein, daizein and glycitein).

isoflavones are a subclass of flavonoids found primarily in soy. There are three types of isoflavones in soy, with each type being present in four chemical forms, for a combined total of 12 isomers of soy isoflavones. The names genistein, daidzein and glycitein refer to the unconjugated or *aglycone* forms of isoflavones. In their conjugated or *glycone* forms, they become genistin, daizin and glycitin.

Improves The Bioavailability Of Isoflavones

During fermentation, bacteria produce protease enzymes which partially digest protein. It has been observed that upon the fermentation of soy milk, the essential amino acid content—such as that of lysine, methionine and phenylalanine—increases as these are liberated from proteins. This partial digestion of soy protein is especially beneficial for those who have weak digestion or have difficulty digesting soy protein.

Enhances Protein Digestibility

Fermented Soy is Your Healthier Soy

Fermented foods, such as dairy or soy yogurt, confer the health benefits provided by both bacteria and their metabolites (such as lactic acid, acetic acid and peptide metabolites) as well as the health benefits of fermented foods, and fermented soy especially, include improved digestion, reduced lactose intolerance (dairy products), enhanced host immune response, promotion of intestinal microflora balance, and supporting cholesterol metabolism.

Fermented Foods for Health

Yogurt ice cream, fermented soy milk powder and soy cheese. A fermented soy yogurt-style product may be fermented with several different strains of beneficial bacteria to achieve extra health benefits. Although the first patent on the preparations of "soy yogurt" was issued in 1963 using the bacteria *S. thermophilus*, large-scale commercial production was not implemented until in recent years.

There are a variety of fermented soy products on the market both in Asia and the U.S. These products are fermented with different types of cultures, or organisms, usually bacteria or fungi. Traditional fermented soy products include miso, tempeh, soy sauce, and fermented tofu (Fu Ru). Newer additions to the list of fermented soy foods include: fresh soy yogurt, soy

Diverse Organisms Are Used to Ferment Soy Foods

Asian diets for centuries, the West was unaware of them until recent years. In Asia, especially Japan and China, fermented soy is widely consumed and found in many varieties. Even though soy was first introduced into the United States in the 1700s, large-scale cultivation did not begin until the 1920s. While fermented soy products have been part of Asian diets for centuries, the West was unaware of them until recent years.

Fermented Soy is Your Healthier Soy

Fermented foods have been the daily staple for centuries both in the West and the East. Yogurt, a fermented (cultured) milk product, is considered to be a "healthier dairy," whereas fermented soy products are among the favorites in the East.

Fermented Foods Date Back to Ancient Times

Plant enzymes bromelain and papain are added to improve the digestion of soy protein. Each serving contains 45 mg isoflavones (the phytoestrogens genistein/genistin, daizein/daizin, glycitein/glycitin), naturally occurring soy saponins and IP6 (inositol hexaphosphate). Bone health is supported with 325 mg of calcium (as soluble lactate) and 160 mg of magnesium (as citrate) in each serving.

Formulated with 5 Species of Beneficial Bacteria

Fermented Soy Essence™ is the superior soy milk drink. Organic GMO-Free soy milk is fermented with five species of probiotic (beneficial) bacteria: *L. acidophilus*, *L. bulgaricus*, *L. casei*, *L. plantarum* and *S. thermophilus*.