

## THE HEALTH BENEFITS OF SOY

### **THE SOY MILK:**

This is a milk made from soya beans (not cows milk). Cows milk can carry some deadly diseases like TB. Soy milk is very good for you as it will help cure TB and to clear the chest. Soy milk will also help those with HIV/Aids, as it is a medicine for the immune system.

### **HEALTH BENEFITS**

#### **EDUCATION:**

Protein is necessary to develop a child's capability and capacity to retain education input given at school.

#### **TB:**

Cow's milk in many areas is not pasteurised and is known to carry TB germs. These germs are then passed on to the user. The Soya milk does not carry such germs.

#### **HIV/AIDS:**

Not only is the product high in protein value, but it is also highly digestible with a uniquely high protein dispersability. Soy milk also boosts the immune system.

#### **ANTI-OXIDANTS:**

The anti-oxidants in soy foods protect cells from "free radicals", thus helping to prevent cancer and premature ageing.

#### **BREAST CANCER:**

Breast cancer is less frequent among young women whose diets are high in soy, probably due to the isoflavones in the soy protein.

#### **CHOLESTEROL:**

Cholesterol can be reduced when soy protein is eaten daily.

#### **OSTEOPOROSIS:**

Osteoporosis occurs less often in soy-eating women – isoflavones in soy protein to the rescue.

#### **HOT FLASHES:**

This is rare for soy-eating women, thanks again to the isoflavones in the soy protein.

#### **COLON CANCER:**

Colon cancer is less common among soy eaters.

#### **STEROLS & STEROLINS:**

The natural sterols & sterolins in our soy milk boosts the body's anti-bodies.

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**LINOLEIC ACID:**

This helps with the elasticity of arteries.

**VITAMIN SUBSTANCES:**

Contains inositol and choline.

**LECITHIN:**

Lecithin is a natural product of the soy bean and has the following benefits:

- It's a constituent of all cells in the body
- It's an important emulsifier for lipometabolism
- It's an effective opponent of cholesterol
- It stabilises the function of bile and
- Also stabilises the lung function
- It's an important constituent of brain mass
- It is actively involved in important nerve functions
- It contains the vitamin-like substances choline and inositol.

**WHAT IS SOY?**

The unique characteristics of soy have wonderful health benefits. Soy is valuable for practically all people and seemingly has a positive effect on all conditions of health.

How can the lowly soybean have such a profound effect on health? What is in soy that can cause all these amazing health benefits?

We have summarised some of the components found in soy to answer some of these questions.

**<sup>1</sup>OLIGOSACCHARIDES**

Soy is a good source of the nutrients called soy oligosaccharides – this is especially good for the colon. When oligosaccharides are consumed, the undigested portion serves as food-“friendly” bacteria, such as bifidobacteria and lactobacillus species.

“Clinical studies have shown that administering GOS (Galacto-oligosaccharides) can increase the number of these friendly bacteria in the colon while simultaneously reducing the population of harmful bacteria. Experimental studies suggest a possible benefit in lowering blood sugar levels in people with diabetes and in reducing elevated blood cholesterol and triglyceride levels.”

Galacto-oligosaccharides is naturally found in soy beans.

## <sup>2</sup>SAPONINS

Saponins are a wide variety of phytochemicals that are naturally present in plant foods. These components, many sweet-tasting and some health promoting, are under close scrutiny by nutrition researchers on how they prevent and treat disease.

Saponins are found in grains, many vegetables and legumes (including soy beans). Many of these compounds serve as “natural antibiotics” for the plant, but now scientists are looking at how they can help humans to fight fungal infections, combat microbes and viruses, boost the effectiveness of certain vaccines and knock out some kinds of tumour cells, particularly lung and blood cancers. They can also lower blood cholesterol and as such reduce heart disease.

## <sup>3</sup>PHYTOSTEROLS

Plant sterols and stanols are collectively known as phytosterols. Plant sterols are plant compounds with chemical structures similar to that of cholesterol, they therefore have the ability to block dietary cholesterol absorption and help lower your cholesterol levels.

Phytosterols may help to:

### **Prevent heart disease**

Studies have shown that daily phytosterols can lower total and LDL cholesterol levels by an average of 10% to 14%.

### **Ease enlarged prostate**

“For the last 20 years, a herbal preparation containing phytosterols has been available in Germany for treatment of benign prostate hypertrophy (BPH). More recently, two 6 month studies on 350 men, with BPH, that was given phytosterol betasitosterol, and showed an increase in their urinary flow rate and a decrease in pain and burning.”

### **Calm inflammation in rheumatoid arthritis (RA)**

Most traditional treatments for RA involve drugs that suppress the body’s immune response, this can often cause troubling side effects. A mixture of the phytosterols, beta-sitosterols and beta-sitosterolin has shown promise in helping to decrease inflammation and calm the overactive immune response that characterizes RA and other auto-immune diseases.

### **Control blood sugar in diabetics**

“Some phytosterols stimulate insulin secretion and may contribute to better blood sugar control, a problem in people with diabetes. More research is being conducted on this matter.

## <sup>4</sup>ISOFLAVONES

A great deal of research has been done on isoflavones, especially for possible cancer and heart disease preventative properties. Isoflavones are found in chick peas and other legumes, but the soy bean has the most concentrated amounts of

isoflavones. Isoflavones are extremely important for bone health, lowers cholesterol, ease the discomfort of menopause and act as an anabolic stimulator.

## CHOLINE

Choline is a vitamin-like compound that is an essential part of the human diet as it is used by the body to produce acetylcholine. The neurotransmitter, Acetylcholine cannot be produced without choline and without it, the body cannot function normally. Choline is also an extremely important structural element of cells, especially cell membranes, and it is essential for the process of breaking down fat for energy.

### Why Choline is required

Choline assists in controlling your weight as well as cholesterol levels, keeping cell membranes healthy and preventing gallstones. It is also most useful in the maintenance of the nervous system, **in assisting memory and learning**, and may help to fight infections, including Hepatitis and AIDS. Choline is critical for normal membrane structure and function.

### A mind enhancer

Choline is an essential, natural mind enhancer. Researchers at Duke University in Durham, North Carolina, have been studying the effect of Choline on the brain. It has repeatedly been proven to enhance learning and memory.

### Deficiency of Choline

A Choline deficiency does not happen easily, but if it does, it may lead to liver disease, raised cholesterol levels, high blood pressure, as well as kidney problems. Choline deficiency may also manifest itself in the inability to digest fats, stunted growth and fatty build-up in the liver. **Memory and brain function could also be impaired.**

## VITAMIN B6

Vitamin B6 is also known as Pyridoxine and is used in the processing and metabolism of proteins, fats and carbohydrates, while assisting with **controlling your mood as well as your behaviour.**

Vitamin B6 are also of **benefit for children with learning difficulties.**

It is linked to cancer immunity and fights the formation of the toxic chemical homocysteine that is detrimental to the heart muscle.

### Deficiency of Vitamin B6

Irritability, nervousness, insomnia, **forgetfulness**, general weakness, skin changes, such as dermatitis and acne, as well as asthma and allergies might develop when vitamin B6 is in short supply.

## <sup>5</sup>VITAMIN A

As a fat-soluble vitamin, vitamin A is involved in the formation and maintenance of healthy skin, hair and mucous membranes. Vitamin A helps us to see in dim light and is necessary for proper bone growth and tooth development.

Vitamin A also helps regulate the immune system and the immune system helps prevent or fight off infections by manufacturing white blood cells that destroy harmful bacteria and viruses. It is also thought that vitamin A might help lymphocytes, a type of white blood cell that fights infections, function more effectively.

When there is not enough vitamin A, cells lining the lung lose their ability to remove disease-causing microorganisms.

Vitamin A deficiency may increase children's risk of developing respiratory infections.

## <sup>6</sup>VITAMIN C

Vitamin C serves as a key immune system nutrient and a potent free-radical fighter. This double-duty nutrient has been shown to prevent many illnesses. Human beings cannot produce vitamin C; we therefore have no choice but to obtain this nutrient from our diet.

Vitamin C helps some of our most important body systems. First and foremost, it helps the immune system to fight off foreign invaders and tumour cells. Vitamin C also supports the cardiovascular system by facilitating fat metabolism and protecting tissues from free radical damage. It also assists the nervous system by converting certain amino acids into neurotransmitters.

The skin, teeth and bones also benefit from vitamin C's collagen forming and invader resisting properties; this vitamin contributes to the maintenance of healthy bones, the prevention of periodontal disease and the healing of wounds. It even serves as a natural aspirin, of sorts, by combating inflammation and pain. It accomplishes this task by inhibiting the secretion of the prostaglandins that contribute to such symptoms.

Vitamin C also helps the body to absorb iron and to break down histamine, the inflammatory component of many allergic reactions.

Vitamin C is absorbed by an active transport system located in the gut and then reabsorbed through the kidneys. Since the absorption mechanisms in the gut and kidneys can reach a saturation point, it is better to take multiple doses of vitamin C throughout the day than one large dose.

## <sup>7</sup>VITAMIN E

Vitamin E is a fat-soluble vitamin and is a powerful biological antioxidant. Vitamin E act to protect the cells against the effects of free radicals that are potentially damaging by-products of the body's metabolism.

Individuals who cannot absorb fat may require a vitamin E supplement, as some dietary fat is needed for the absorption of vitamin E from the gastrointestinal tract. Anyone diagnosed with cystic fibrosis, individuals who've had part or all of their stomach removed, and individuals with mal-absorptive problems such as Crohn's Disease, may not absorb fat and should discuss the need for supplemental vitamin E with their physician.

Antioxidants such as vitamin E help protect against the damaging effects of free radicals that may contribute to the development of chronic diseases such as cancer. Some evidence associates higher intake of vitamin E with a decreased incidence of prostate cancer and breast cancer.

## <sup>8</sup>SELENIUM

Selenium is part of the enzyme glutathione peroxidase that metabolises hydroperoxides formed from polyunsaturated fatty acids. Selenium is also a part of the enzyme that deiodinate thyroid hormones. Generally, selenium functions as an antioxidant that works in conjunction with vitamin E.

## <sup>9</sup>IRON

Iron is necessary for the formation of haemoglobin that carries oxygen in red blood cells. One's body stores iron in your liver and long bones where red blood cells are made. When iron levels in haemoglobin get low, a person feels tired and lacks energy to do every day tasks due to lack of oxygen delivery to organs and tissues.

## <sup>10</sup>FOLIC ACID

Folic acid, also known as folate, is a B-vitamin. Folate, a water-soluble vitamin, helps the body form red blood cells and aids in the formation of genetic material within every body cell. A brain's best friend.

### HOW DO THEY WORK

They are co-factors for making neurotransmitters, vital for enzymes that control the chemistry of connection, methyl group donors and acceptors.

It also acts as a well being stimulant, but too much (high doses) can cause headaches.

## <sup>11</sup>OMEGA 3 FATTY ACIDS

There are two essential fatty acids (essential for life) that the body cannot make; i.e., they must be obtained from foods. The best sources to obtain both essential fatty acids (linolenic-omega 3 fatty acid, and Linoleic-omega 6 fatty acid) are oils of certain seeds and nuts. The richest sources of foods containing omega 3 fatty acids are certain types of fish (mackerel, Atlantic salmon, bluefish, halibut, herring, and striped bass). Other good sources are flax seed, pumpkin, soy, and walnut.

Omega 3 fatty acids seem to help protect against heart disease by making blood less likely to coagulate; the blood is less likely to form clots that can lead to sudden death. In one study, men that eat fatty fish after a heart attack were 30% less likely to die during a two year period than heart attack victims that did not eat fish. Another study has shown that omega 3 fatty acids given before and after angioplasty help arteries remain clear rather than reclog.

Omega 3 fatty acids may aid in arthritis. In more than a dozen studies, arthritis patients ingesting omega 3 pills experienced fewer tender and swollen joints than those not taking pills. It appears that omega 3's suppress a sequence of events that occurs between the cells of the immune system and those of the joints.

## <sup>12</sup>**SOME OTHER BENEFITS OF SOY**

Lung cancer – studies have linked soy consumption to lower rates of lung cancer.

Hip fractures – calcium rich soy may help retain bones.

Kidney disease – soy can help prevent kidney damage, because it is easy on the kidneys.

Immunity – the peptides inside the soy helps to boost the immune system and fight off disease.

### **GENERAL NOTES**

For those new to soy, we recommend to add it slowly to your diet, until you develop a taste for it. Use the soymilk to cream soups, make smoothies, make white sauces, use on cereals and remember to continue to eat healthy foods.

So, experiment and have fun trying out new ways to enjoy your soy!

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<sup>1</sup> Molisc, Flourie B, Ouarnef, et al. Digestion, excretion, and energy value of fructooligosaccharides in healthy humans. AM JC LIN NUTR 1996;64:324-8

<sup>2</sup> <http://www.natural-woman.com/imosapo.nun>

<sup>3</sup> <http://www.anyvitamins.com>

<sup>4</sup> <http://www.soyfoods.com/nutrition/isoflavone.html>

<sup>5</sup> <http://ohioline.osu.edu/hyg-fact/5000/5551.html>

<sup>6</sup> <http://www.garynull.com/documents/vitaminc.html>

<sup>7</sup> [http://www.cc.nih.gov/ccc/supplements\\_vite.html](http://www.cc.nih.gov/ccc/supplements_vite.html)

<sup>8</sup> The Merck Manual, sec. 1, ch4, Mineral deficiency and toxicity

<sup>9</sup> <http://www.dietitian.com/iron.html>

<sup>10</sup> <http://ohioline.osu.edu/hyg-fact/5000/5553.html>

<sup>11</sup> <http://www.twinsfood.com/sobranomega.htm>

<sup>12</sup> <http://www.thesoydailyclub.com/research/news.asp>