



Isoflavones from Soy May Help Support Female Functions, Fight Cancer, And More!

An isoflavone from soy has been evaluated for its effect on various female functions such as the menopause and some effects on estrogens. Soy products have been part of the diet in the Far East for thousands of years, and it is a known fact that these people suffer fewer incidences of conditions such as breast cancer, menopausal problems, rectal cancer and diseases of the heart and joints.

The benefits that such a diet appeared to confer on those taking it initiated many studies into the active constituents of soy, and how the biochemistry involved imparted these benefits. A result of this was an intensification of investigations into many so-called - women's functions' or 'women's problems' that hitherto had been accepted as a part of life. Now, however, they are better understood, just as many other components of the Oriental diet are being found to have wider implications in terms of disease prevention and increasing life expectancy. So back to soy and its isoflavone content.

Soy contains a number of isoflavones, commonly known as phyto-estrogens - plant estrogens - because their chemical formula is similar to that of estrogen, a female hormone. Isoflavones possess some properties that support the beneficial properties of estrogens, and others that suppress some of the risk factors possessed by estrogen. We shall discuss here how these isoflavones are related chemically to estrogens, and how they can be used to support some specific female functions.

In order to understand how isoflavones work we go back to the 1980s, when alpha and beta estrogen receptors were discovered. Until then, the biochemistry of estrogen was not fully understood, and problems connected with estrogen had not been fully investigated.

Like all hormones, estrogen works by finding receptors that are located on cells. With regard to estrogen there are two types of receptor. The beta receptors are connected with the beneficial properties of estrogen, while the alpha receptors tend to lead to the unfavorable effects such as cancers related to estrogen. Each of your different tissue types possesses different ratios of these two receptor types.

The unfavorable alpha receptors predominate in tissues such as the breast, ovaries and uterus. The favorable beta receptors predominate in the blood cells, bladder, prostate gland, thymus and bones. Studies have indicated that isoflavones appear to attack to the beta receptors and simulate the beneficial effect of estrogen when the levels of estrogen in the body are low, and allow the proper functioning of these cells in the body.



The alpha cells are also populated by isoflavones, which then protect these areas of your body against cancers that can be stimulated by estrogen, such as cancers of the breast, ovaries and uterus. It appears that cancers that can develop when the alpha receptors are populated by estrogen do not occur when isoflavones have captured them

Isoflavones are present in the form of glucosides. These are composed of sugar and non-sugar components, the latter known as aglycones, and the main isoflavones in soybean are based on the three aglycones genistein, daizein and glycitein. The glucosides are water soluble and are broken down into enzymes known as B-glucosidases in the intestine. This releases the aglycones that can be further metabolized into other substances.

Current studies are examining the possibility that a diet rich in isoflavones taken early in life up to teenage years can reduce the incidence of breast cancer in later years.

Isoflavones have been used in the laboratory to reduce the growth of prostate cancer cells, and animal studies have reinforced this finding. The fact that Japanese men suffer less from prostate cancer than those eating diets low in isoflavones also tend to reinforce this connection.

The same mechanism can be used to in prostate cancer by binding to testosterone receptors. Genistein, in particular, can help treat certain types of cancer by inhibiting enzymes such as tyrosine kinase that can become hyperactive and over stimulate the growth of potentially cancerous cells.

It is probable that the estrogen binding facility of isoflavones complements the activity of estrogen in women with low levels of hormone. When the female estrogen level is low, isoflavones can reduce the effects of the menopause and symptoms such as hot flushes and night sweats become less severe. While not all women benefit, it has been found that women with these symptoms tend to suffer less when taking a diet rich in soy foods containing isoflavones.

In addition to its moderating effect on these cancers, and its effect on the menopausal symptoms on many women, soy isoflavones possess a few other beneficial health properties. They are strong antioxidants, and help to support the immune system by mopping up free radicals. They also help to protect from atherosclerosis by preventing the oxidation of LDL cholesterol and depositing it as plaque in the arteries.

There is evidence that isoflavones in the diet can help to maintain strong healthy bones. This is largely through the fact that Chinese women taking a diet rich in soya suffer fewer fractures than those on a low soy diet, but studies are continuing into potential reasons for this. Estrogen receptors in bones regulate bone growth and density. Isoflavones can



modulate these receptors and promote greater bone density just like estrogen hormones with out estrogen side effects.

Isoflavones have few dietary sources, the richest being soybeans and other soy products. These are very low in the non-Asian diet, so few people, other than Asians, receive the benefit of these phytochemicals. This is believed to be the major reason for Asians suffering significantly lower rates of certain cancers than non-Asians.

Soy milk and tofu are the richest sources, although there is no standardization of isoflavones in soy-based foodstuffs. This is because the isoflavone content varies according to growing conditions, although a diet containing the recommended quantities of soy foods, such as soy milk or soy beans, together with a low cholesterol diet, should help women to overcome many of the problems associated with excess estrogen, or a lack of it especially when taking in conjunction with essential fatty acids.

Any supplement containing soy will be beneficial to most women, particularly during the menopausal stages, although the effect of isoflavones on certain cancers to which women are susceptible cannot be ignored. Such supplements should therefore be used by all women from at the teens onwards, studies having indicating that an isoflavone-rich diet should be beneficial over the longer term.

Isoflavones from soy is effective in helping to support female functions, although the normal Western diet is traditionally very short in these forms of phytoestrogen. Isoflavones can modulate estrogen receptor sites through out the body helping the body regulate its functions and easy the symptoms related to a estrogen deficient body.



- **[Genistein 1000 mg Soy Isoflavone 120 tabs](#)**

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