

Soy and Testosterone Levels

The isoflavones in soybeans – also commonly referred to as phytoestrogens – have been posited to be alternatives to conventional hormone therapy. Not surprisingly therefore, there has been considerable investigation of the effects of soyfoods on the health of menopausal women. By comparison, there has been less research on the effects of soyfoods in men although an exciting field of study is the potential role of soy in reducing risk of prostate cancer.

The estrogen-like effects of isoflavones have also led to interest in understanding the impact of soyfoods and isoflavone supplements on testosterone levels in men. Elevated testosterone is a risk factor for prostate cancer. On the other hand, low testosterone levels are associated with a loss of energy, depressed mood, decreased libido, erectile dysfunction, decreased muscle mass and strength, increased fat mass, osteoporosis and possibly, increase risk of coronary heart disease.

Two small studies have reported decreases in testosterone in response to large amounts of soy; however, each study suffered from methodological problems. For example, in one, most of the reported decrease resulted from the very large decrease that occurred in one subject who had abnormally high testosterone levels at study onset.

To evaluate the effects of soy and isoflavones on testosterone levels, researchers associated with several different universities conducted a statistical analysis of all relevant clinical trials. Although the study is not yet published, the researchers concluded, on the basis of approximately 30 trials, **that neither soyfoods nor isoflavone supplements affect total or free (biologically available) testosterone levels in healthy men or cancer patients.**

Thus, it appears that, if soy does reduce prostate cancer risk, decreasing testosterone levels is not a possible mechanism. Conversely, these findings also show that men who eat soy won't suffer from the consequences of low testosterone as a result.