



Soy Protein and Weight Management

As a low-fat, cholesterol-free source of healthful plant-based protein, soy protein and soy-based ingredients have received much attention for potential weight loss and weight management properties.

Healthy Protein – A Crucial Component for Weight Management

Several leading health organizations recommend that diets for weight loss or weight management contain a serving of lean sources of protein at every eating occasion. As a high-quality, nutritionally rich plant-based protein, soy protein fits well with this recommendation. Soy protein naturally contains many nutrients important for health and lacks saturated fat and cholesterol associated with some animal protein.

The most important dietary method to manage weight or lose weight is to control or limit energy (calorie) intake. Controlling energy intake can be achieved with many strategies. One strategy is to include foods in the diet that help control hunger and enhance satiety – the feeling of being full. A recent scientific review suggests that meals higher in protein provide greater satiety and fullness than meals lower in protein (high in carbohydrates and/or fat). What is perhaps more important, the review also indicates that eating meals high in protein results in lower energy intake in subsequent meals compared to meals high in carbohydrates and fat.

Soy Protein and Glycemic Index

Soy protein, in place of certain carbohydrates, can help lower the glycemic index (GI) of foods. A low GI-diet has been shown to lower blood sugar (blood glucose) and insulin responses, and may result in loss of body fat. A recent review of low-GI studies suggests that a low-GI diet may result in lower energy intake and reduced appetite, which also aids in weight loss and weight management.

Soy Protein and a Low-Carbohydrate Diet

Higher-protein, lower-carbohydrate diets have become very popular. However, a few health concerns about these diets have been raised. One concern is the effect of large intakes of animal protein on kidney health – especially in those at risk of kidney disease (such as people with type 2 diabetes). Traditionally, treatment and prevention of diabetic nephropathy (kidney damage caused by persistently high blood sugar levels) have involved restricted protein intake that can result in protein malnourishment. However, a 2003 *Journal of Nutrition* article states eating a diet rich in soy protein may slow the development of diabetic nephropathy. In fact, soy protein has been found to be well-tolerated in patients undergoing hemodialysis (a treatment required to filter blood in the later stages of kidney failure).

Another concern is the increased intake of saturated fat associated with animal proteins (meat, cheese, etc.) which has been associated with negative effects on blood cholesterol and other indicators of heart health. In contrast, nearly 50 studies have demonstrated that consuming soy protein reduces blood cholesterol. In fact, the strong data about soy protein consumption and cholesterol reduction was used to support a health claim approved by the Food and Drug Administration (FDA). The claim states:

“25 grams of soy protein a day, as part of a diet low in saturated fat and cholesterol, may reduce the risk of coronary heart disease.”

The American Heart Association also recommends intake of soy protein for heart health.

Many women of menopausal age are choosing to follow higher-protein, lower-carbohydrate diets. During menopause, women lose bone more rapidly than any other time during their lives. There is some evidence that diets high in animal protein may have negative effects on bone health. However, eating soy protein with its bioactive components – isoflavones – may help build stronger bones and reduce the loss of bone. This effect has been demonstrated in women going through menopause and in older post-menopausal women.

Therefore, soy protein is a healthful option for people who are adhering to higher-protein, lower-carbohydrate diets.

Emerging Research about Soy Protein and Weight Management

Preliminary results from a study by Heber and colleagues (abstract was presented at Experimental Biology in 2003) suggest soy protein-based meal replacements are effective for weight loss in people with type 2 diabetes. Participants on the soy-based meal replacement diet lost an average of 5.5 percent of their body weight while those on the more traditional exchange program lost only 2.2 percent body weight – a statistically significant difference. Furthermore, participants who consumed the soy-based meal replacement were able to stop taking their diabetes and high blood pressure medications. Research is ongoing to further determine the relationship between soy protein consumption and blood glucose, insulin sensitivity and high blood pressure.

