



Whey protein shows body weight benefits without energy restriction

By Stephen Daniells, 20-Jul-2011

Supplements of whey protein, but not soy protein, may improve body weight without restricting energy intakes or habitual diets in obese and overweight adults, suggests a new study by scientists from the US Department of Agriculture.

The study is 'unique' for showing a gradual benefit of added whey protein - Dr Greg Miller, DRI

Fifty-six grams of [whey protein](#) per day for six months were associated with a two percent reduction in body weight, compared to a group consuming an equal amount of calories from carbohydrates, according to findings published in the *Journal of Nutrition*.

The study, funded by USDA and the US Whey Protein Research Consortium (USWPRC), found that the whey protein supplement was associated with a reduction in levels of a hormone called ghrelin, which is reported to serve as a hunger signal and may boost food intake.

“In this study in which energy restriction was not part of the intervention, changes in body weight and composition were small but nevertheless suggest that habitual consumption of supplemental protein may result in improved body composition and incremental, but ultimately significant, weight loss,” wrote the USDA researchers.

“These data suggest that supplemental dietary protein may reduce the risk of unhealthy weight gain observed in many populations (i.e. 500 to 1000 grams per year).”

Health claim?

The study's findings were welcomed by Suzane Leser, nutrition manager for Lifestyle Ingredients at European whey supplier Volac as *“strong evidence to support the benefits of whey protein for [weight management](#)”*. Volac is a member of the USWPRC.

“The design meets EFSA scientific requirements to support health claims on this area, according to the latest draft guidance,” added Leser.

“In Europe, [this pre-competitive consortium research] has the potential to support future applications for health claims as it tackles EFSA concerns resulting from the rulings.

“The careful methodology applied to this study tested the long-term effect of whey protein specifically on appetite ratings and subsequent energy intake. It also demonstrates the most obvious health benefit of reducing body weight, which is the concomitant reduction in body fat mass, particularly abdominal fat,” she added.

Unique study

Gregory Miller, PhD, president of the Dairy Research Institute (DRI), also welcomed the study as adding to the *“growing body of research showing a benefit of higher protein diets, and whey protein in particular, on weight management and body composition,”*

“While a majority of the previously published work has shown this benefit with concurrent energy restriction or routine exercise, this study is unique in demonstrating the gradual benefit of added whey protein without these other lifestyle changes.

“Certainly, to elicit significant changes in body weight over the short term requires exercise or diet adjustments. However, this study provides early evidence that whey protein may play a significant role in weight management over the long term,” added Dr Miller.

Study details

The USDA researchers recruited 73 overweight and obese adults and randomly assigned them to receive two 200-calorie beverages a day, consisting of 28g of whey or soy protein plus carbohydrate or carbohydrate alone per serving for 23 weeks. No other instructions were provided about diet.

At the end of the study, the researchers report that the whey protein group’s body weight was approximately 4 pounds lower than the carbohydrate group, and their body fat was 5 pounds less than the carbohydrate group.

In addition, a one inch reduction in waist size was reported in the whey group, compared to the carbohydrate and soy protein groups.

“Although there were differences in food intake between males and females, the effects of the intervention were consistent between males and females,” wrote the researchers.

“Short-term weight loss requires energy restriction and higher protein diets may assist in this acute weight reduction; however, protein supplementation, particularly WP, in overweight and obese individuals may assist in long-term maintenance of body weight without energy restriction.”