

and three male) who were not previously involved in resistance training began a six week exercise program with soy protein supplementation. Lean muscle mass was assessed using a dual X-ray absorptiometry machine, muscle strength by one repetition maximums (1RM), and urine analysis for protein catabolism. Soy protein supplementation showed beneficial effects on lean muscle mass and strength in comparison to a placebo group with just resistance training; however no statistical significance to support these results (Candow, 2006). Following a separate study performed by Deibert & et. al., pre-obese and obese subjects were randomized into three separate groups: lifestyle education (LE-G), soy protein supplementation with a low-fat diet and physical activity (SD/PA-G), and without physical activity (SD-G). 28 subjects in each group followed their program for 18 weeks and were assessed for body composition and weight loss. Supplementing a high-soy protein with a low-fat diet resulted in a highly significant drop in weight loss and BMI in comparison to the other groups; however all groups showed a significant decrease (Diebert, 2004). These three studies combined assessed the use of soy protein powder as a supplement for improving exercise performance, body composition, protein synthesis, and weight loss following resistance training. Although there proved to be no significant changes in exercise performance, body composition, or protein synthesis, the use of soy protein did show significant changes in weight loss when supplemented with a low-fat diet. As previously mentioned, animal-derived protein is considered to be the more dominant and popular supplement to plant-derived sources, but there is limited significant data to support any claim that whey or casein is superior to soy or that soy is substantially efficient or effective.