# Effect of Soy Protein Isoflavones on High Fat Diet-Induced Obesity in Albino Mice

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## Abstract

The problem of obesity is increasing at an alarming rate throughout the world. Obesity causes many health problems, both independently and in association with other diseases. Reducing body fat is a major health goal throughout the world and identifying functional foods that can help to reduce body fat and meet other health needs has been the subject of numerous studies. Soy protein is one of the popular functional foods, due to its rich functional ingredients of particular interest in recent years. The present study aimed to assess the anti-obesity effects of soy protein intake, as well as its effect on lipid profile in an experimental obesity model in albino mice. Fourty male albino mice were divided into four groups: Normal diet control group (ND), normal diet contain-ing soy protein (ND+SP) group, high fat diet control group (HF) and high fat diet containing soy protein group (HF+SP). The body weight, back and epididymal fat weights, also serum lipid profiles were measured at the 12th week of the experi-ment. Results were as follows: 1- Soy protein intake signifi-cantly reduced the weight gain in mice fed high fat diets, epididymal and back fat weights were lower as compared to HF control group. 2- Serum lipid concentrations were signif-icantly improved in the HF+SP group than HF control group. These findings suggest that soy protein intake in high fat diet might normalize body weight, epididymal

and back fat weights, serum lipid concentrations through controlling lipid metabolism.

Key Words: Soy protein – Obesity – Hypercholesterolemia – Isoflavones.

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