Hypothesis

It was my original thought that following a calorie restriction and weight loss, domestic cats would experience a hyperphagic effect on a high protein diet and the increased levels of amino acids would actually cause satiety in these cats. I thought the high protein diet group, when compared to the moderate protein diet group, would eventually eat less over a period of 2 weeks and slow the rate of weight regain in these high protein cats when compared to the moderate protein cats.

Research Accomplished

Study subjects were dieted down to a body weight loss of 13.5%-14.0%. Once accomplished, they were put on either a high protein or a moderate protein diet ad libitum and their daily food intakes were measured, as was their body weight and % weight regain twice a week. Blood samples were collected to measure their lean body mass as well following a D2O injection. Statistical analysis was performed to show significant differences existed between the two diet groups once the 2 week interval was collected for both diet groups. It was also done to ensure that both diet groups were similar to each other in starting weight prior to weight restriction.

Results

Cats on a high protein diet actually ate more than their moderate protein counterparts at the two week interval. At two weeks, the stats showed that a significant difference existed. However, at the two week interval, the stats were not able to show that weight regain was significantly different, even though graphically the high protein cats were gaining weight at a rate more than 2.5 times faster than the moderate protein cats. The machine that reads the D2O samples has been malfunctioning, so samples will be read at a later date. Collection of a 35 day interval for the weights of these cats will be gathered soon to hopefully show that at 35 days there is enough statistical evidence that the % body weight regain is significantly different. It can be stated that a high protein diet, while effective at causing satiety in humans and other omnivores, is not effective in felines and should not be fed ad libitum to help fats eat less following a calorie restriction.