

Weight management in client-owned cats fed a high protein – low carbohydrate maintenance diet

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Introduction



According to several studies worldwide, around 1 out of 2 cats are overweight or obese.¹⁻² Specific weight loss diets, formulated on a low energy - high fibre concept, are frequently poorly palatable and often perceived as too burdensome and too restrictive by pet owners, who thus simply give up on these diets.³ There is therefore a need for non-restrictive palatable diets which could help cats lose weight in a "softer way".

The aim of this study was to assess the weight loss achieved with a high protein - low carbohydrate maintenance diet by overweight cats, which had previously failed with a weight loss programme.

Animals, materials and methods

During 8 weeks, 20 overweight adult neutered cats were given a new dry maintenance diet with a high protein and low carbohydrate content (Table 1). 0.5 to 1% weight loss per week was targeted. Individual daily rations were calculated each week, based on the energy requirement estimated at $0.8 \times 0.8 \times 60 \times \text{BW}$ (BW: body weight being recorded weekly).⁴ A General Linear Mixed Model (factors: fixed (time), random (cat)) was used to test weight loss between weeks, with a 5% significance level.

Table 1: Nutritional characteristics of the tested diet

Crude protein	44.5%
Animal/vegetable protein ratio	92/08
Crude fat	13%
Crude fiber	7.5%
Nitrogen free extract	24%
Metabolisable energy	338kcal/100g

Results

15 out of 20 cats completed the study. **Despite the absence of rationing and the distribution of treats by most of the owners, 67% of these cats lost weight and 50% had a visibly slimmer silhouette.** The effect of the diet was fast with a significant

weight loss as soon as week 1, and a mean weight loss of 1.2% per week (Fig. 1 & Table 2). **80% of cats appreciated the tested diet** according to their owners, and 73% of pet owners were ready to buy this diet or would recommend it to friends.

Fig. 1: Evolution of the bodyweight of cats responding to the diet

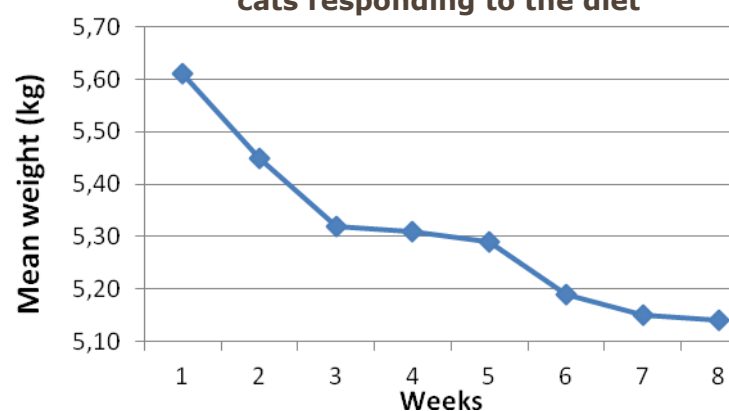


Table 2: Weight loss for cats responding to the diet

Visit	Weight loss (%)	p value
Week 1 - week 2	-2.95	0.0005*
Week 2 - week 3	-2.04	0.0124*
Week 3 - week 4	-0.20	0.7986
Week 4 - week 5	-0.60	0.4508
Week 5 - week 6	-1.95	0.0169*
Week 6 - week 7	-0.69	0.3870
Week 7 - week 8	-0.23	0.7764

* Statistically significant weight loss

Conclusion

This new high protein – low carbohydrate maintenance diet resulted in a gradual weight loss. **This "soft" way to lose weight and the good palatability, which may be due to the high animal protein content^{4,5}**, are probably the key points that can explain the good satisfaction rate among owners regarding the tested diet.

References: 1) APOP. National pet obesity awareness day survey 2012 ; 2) Courcier EA et al. J Fel Med Surg 2010 ; 3) Bissot T et al. J Fel Med Surg 2012 ; 4) FEDIAF Nutritional Guidelines for complete and complementary pet foods for cats and dogs 2013 ; 5) Zoran D. JAVMA 2002 ; 6) MacDonald M & Roeder O. Ann Rev Nutr 1984



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