

# Hill's™ Prescription Diet™ Metabolic Advanced Weight Solution – proven in clinical studies and the real world

For years Hill's has been exploring the most effective ways for pets to safely lose extra weight and maintain their ideal weight through nutrition. The result: **Hill's™ Prescription Diet™ Metabolic Advanced Weight Solution**, proven in extensive at-home feeding trials and clinical studies.

The first of these key studies proves the effectiveness of **Hill's™ Prescription Diet™ Metabolic Advanced Weight Solution** in real-world situations with over 350 client-owned pets. The second and third studies demonstrate its efficacy in safely and naturally supporting weight loss and maintenance.

## Effectiveness of Hill's™ Prescription Diet™ Metabolic Advanced Weight Solution for Weight Loss in Client-Owned Pets

### Key points:

Hill's™ Prescription Diet™ Metabolic Advanced Weight Solution works the way people feed their pets and helps drive compliance. 96% of dogs and 81% of cats lost weight in 2 months in home conditions. Owners agreed Metabolic Advanced Weight Solution was an easy way to help their pets lose weight whilst keeping them full and satisfied.

**Purpose:** To determine the effectiveness of Metabolic Advanced Weight Solution to achieve weight loss in dogs and cats under normal home conditions and understand pet owners' usage experience.

**Design:** Pets with a body fat measurement of  $\geq 29\%$  were enrolled in a 2-month blind study. Feeding recommendations were made for weight loss at 1.0 x RER for dogs and 0.8 x RER for cats, but owners were not informed they were enrolled on a weight loss study and the sponsor of the study was not revealed to participating veterinary clinics.

**Results:** 159 dogs (58 breeds) and 155 cats (8 breeds) completed the study. 96% of dogs and 81% of cats lost weight at a rate of 0.8% and 0.5% respectively.

**Conclusion:** 68% of pet owners agreed this was an easy way for their pet to lose weight. 65% agreed that the food kept their pet full and satisfied. 80% would recommend the food to a friend with an overweight pet.

## Hill's™ Prescription Diet™ Metabolic Advanced Weight Solution Weight Loss and Weight Maintenance Studies

### Key points:

Metabolic Advanced Weight Solution Canine and Feline foods are clinically proven to safely support weight loss and maintenance in dogs and cats. Dogs and cats lost 28% body fat in 2 months and avoided weight regain following weight loss.

**Purpose:** To evaluate the efficacy of Metabolic Advanced Weight Solution Canine and Metabolic Advanced Weight Solution Feline to help overweight and obese dogs and cats achieve and maintain a healthy weight.

**Design:** Two groups of 10 dogs with  $>33.1\%$  body fat and two groups of 10 cats with  $>30\%$  body fat (both DEXA) completed weight loss and weight maintenance studies. Each group was fed for weight loss for 4 months or until ideal body weight was reached. All groups were then fed to maintain their weight for 4 months. All underwent DEXA and serum chemistry analysis at months 0, 1, 2, 3 and 4 of the weight loss and weight maintenance periods.

**Results:** Dogs lost an average of 11.8% and 12.6% of body weight (BW) and 29.9% and 27.5% body fat (BF) in 8 weeks (figure 1). The rate of loss was 1.5% and 1.4% BW per week, which is considered safe.



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Cats lost an average of 14.2% and 15% BW and 30.1% and 29.1% BF in 8 weeks (figure 2). The rate of loss was 1.2% and 1.3% BW per week, which is considered safe.

There were no statistical differences in BW at the end of the weight loss and weight maintenance periods for any of the groups. At the end of weight maintenance, both dog and cat groups on average were consuming food well above recommended daily energy requirements for weight maintenance in obese-prone pets.

Individuals with less than +/- 5% BW change at the end of the weight maintenance period (9/20 dogs and 6/19 cats) maintained their BW while continuing to lose body fat and gained lean body mass.

## Changes in Gene Expression After Weight Loss and Weight Maintenance in Overweight Cats and Dogs Fed Hill's™ Prescription Diet™ Metabolic Advanced Weight Solution

### Key points:

Feeding Metabolic Advanced Weight Solution helps cats and dogs achieve a healthy gene expression profile. Changes in gene expression can reflect the changes in underlying biochemistry.

**Purpose:** To evaluate the effects of Metabolic Advanced Weight Solution Feline and Metabolic Advanced Weight Solution Canine on changes in biochemistry, as reflected by changes in gene expression in overweight and obese cats and dogs during weight loss and maintenance.

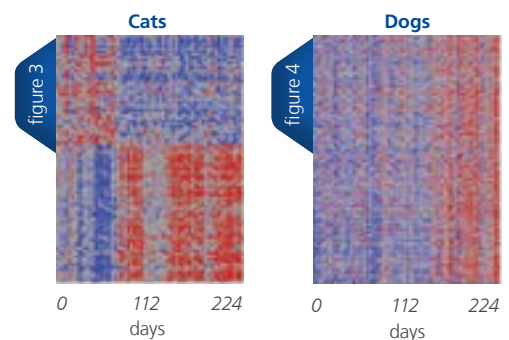
**Design:** Twenty cats and twenty dogs participating in the Metabolic Advanced Weight Solution Weight Loss and Weight Maintenance Studies were evaluated for gene expression changes at the end of weight loss (Day 112) and weight maintenance (Day 224) periods.

**Results:** 424 and 1391 significant gene expression changes were noted in the cats (figure 3) with the greatest magnitude of change occurring in the weight loss period. A similar trend was found in the dog group with 74 and 307 significant gene expression changes noted (figure 4).

**Conclusion:** Metabolic Advanced Weight Solution Canine and Feline foods work to promote healthy gene expression changes, exemplified by the lowering of expression of key metabolic genes such as Phosphatidylcholine Transfer Protein (PCTP) in the cat and PCTP, TSHB and CA1 in the dog.

Heat map reflecting significant changes in gene expression in cats (figure 3) and dogs (figure 4) fed Metabolic Advanced Weight Solution for 112 and 224 days compared to baseline.

*Each column = an individual cat or dog at Day 0, 112 or 224.  
Each row = an individual gene with significant change in expression over time.  
Genes with relative down regulation/expression are shown in blue; genes with relative up regulation/expression are shown in red.*



### Summary

Hill's™ Prescription Diet™ Metabolic Advanced Weight Solution is clinically proven to effectively and safely help with weight loss and prevent weight regain in dogs and cats. Product efficacy is delivered through nutritional breakthrough technology that works with each pet's energy pathways to optimise fat burning while sparing lean body mass. Weight loss effectiveness was also proven with client-owned pets in a real world environment, making Hill's™ Prescription Diet™ Metabolic an outstanding nutritional solution for overweight and obese pets.