### **FAQ**



## WEIGHT LOSS

How is the ideal weight calculated?

How is the energy allocation for weight loss in dogs calculated?

How is the energy allocation for weight loss in cats calculated?

Why is the rate of weight loss calculated between 0.5 and 2% for cats and between 1 and 3% for dogs?

What should I do if the patient's rate of weight loss remains below the minimum recommendation (less than 0.5% per week for cats/ 1% per week for dogs)?

### STABILISATION AFTER WEIGHT LOSS

How is the energy allocation for maintenance after weight loss calculated?

Why do we recommend continuing with a weight loss diet after weight loss?

### **MAINTENANCE**

How is the energy allocation for maintenance in cats calculated?

How is the energy allocation for maintenance in dogs calculated?



## WEIGHT LOSS

## How is the ideal weight calculated?

The first step for estimating the ideal body weight is to assess the patient's Body condition Score (BCS), using the 9-point scale. Each score over 5/9 corresponds to a percentage of excess weight that will be used to calculate the ideal bodyweight (IBW).

For example, a cat weighing 7.2 kg, with a body condition score of 9/9 weighs 140% of his ideal weight. His ideal weight will be calculated as follow: IBW= 7.2/1.4 = 5.14 kg.

Caption			
BCS Score (using the 9-point scale)	Variation from Ideal Bodyweight (IBW)	Calculation of the Ideal Bodyweight (IBW	
5	100% IBW	IBW= Current BW	
6	110% IBW	IBW= Current BW/1.1	
7	120% IBW	IBW= Current BW/1.2	
8	130% IBW	IBW= Current BW/1.3	
9	140% IBW	IBW= Current BW/1.4	

## VET FOLLOW UP

### How is the energy allocation for weight loss in dogs calculated?

The initial daily energy allocation is calculated using the following formulas that are based on clinical weight loss trials performed using ROYAL CANIN® weight management diets:

Sexual status	Daily allocation
Intact male	80 kcal/kg <sup>0.75</sup> (using target bodyweight)
Neutered male/Intact female	70 kcal/kg <sup>0.75</sup> (using target bodyweight)
Neutered female	60 kcal/kg <sup>0.75</sup> (using target bodyweight)

The starting ration may need to be adjusted during follow-up visits, based on each individual's response and the rate of weight loss.

#### •Scientific Reference:

GERMAN, A. J., HOLDEN, S. L., BISSOT, T., HACKETT, R. M. & BIOURGE, V. 2007. Dietary energy restriction and successful weight loss in obese client-owned dogs. J Vet Intern Med, 21, 1174-80.

GERMAN, A. J., HOLDEN, S. L., BISSOT, T., MORRIS, P. J. & BIOURGE, V. 2010. A high protein high fibre diet improves weight loss in obese dogs. Vet J, 183, 294-7.

GERMAN, A. J., TITCOMB, J. M., HOLDEN, S. L., QUEAU, Y., MORRIS, P. J. & BIOURGE, V. 2015. Cohort Study of the Success of Controlled Weight Loss Programs for Obese Dogs. J Vet Intern Med. 29, 1547-55.



### How is the energy allocation for weight loss in cats calculated?

The initial daily energy allocation is calculated using the following formula that are based on clinical weight loss trials performed using ROYAL CANIN® weight management diets: 53kcal/kg0.711, using target bodyweight. This starting ration may need to be adjusted during follow-up visits, based on each individual's response and the rate of weight loss. In cats, the energy allocation does not take into account sexual status. The analysis of data collected on 399 cats during weight loss showed the calorie allocation needed to induce weight loss does not differ between males and females.

### •Scientific Reference:

BISSOT, T., SERVET, E., VIDAL, S., DEBOISE, M., SERGHERAERT, R., EGRON, G., HUGONNARD, M., HEATH, S. E., BIOURGE, V. & GERMAN, A. J. 2010. Novel dietary strategies can improve the outcome of weight loss programmes in obese client-owned cats. J Feline Med Surg, 12, 104-12.

GERMAN, A. J., HOLDEN, S., BISSOT, T., MORRIS, P. J. & BIOURGE, V. 2008. Changes in body composition during weight loss in obese client-owned cats: loss of lean tissue mass correlates with overall percentage of weight lost. J Feline Med Surg, 10, 452-9.



## Why is the rate of weight loss calculated between 0.5 and 2% for cats and between 1 and 3% for dogs?

The rate of weight loss corresponds to the percentage of initial bodyweight lost per week. These rates have been shown by several clinical studies to induce a safe and steady weight loss, and are intended to be used as "general guidelines" to allow the ration to be altered during follow up visits.

Clinical studies have shown that in client-owned cats, the rate of weight loss is generally lower than in dogs. This is why there is a lower rate in this species, whereas in dogs a 1% target is more "achievable".

#### •Scientific reference:

German et al, 2010A high protein, high fibre diet improves weight loss in obese dogs. The Veterinary Journal 183 (2010) 294–297

Serisier et al, 2013Maintenance energy requirements in miniature colony dogs. Journal of Animal Physiology and Animal Nutrition 97 (2013) 60-67

Bissot et al, 2010. Novel dietary strategies can improve the outcome of weight loss programmes in obese client-owned cats. Journal of Feline Medicine and Surgery (2010) 12, 104-112



# What should I do if the patient's rate of weight loss remains below the minimum recommendation (less than 0.5% per week for cats/ 1% per week for dogs)?

The "targeted" rate of weight loss (between 1 and 3% of initial bodyweight per week for dogs/ between 0.5 and 2% of initial bodyweight per week for cats) can be used as a general guideline and the system will allow the daily ration to be adjusted if necessary.

For example, between 2 consecutive visits a dog loses less than 1% per week, and there is no simple explanation for this low rate (incorrect amount of food given, additional treats, lack of exercise...), the system will decrease the daily ration by 10%.

The rate of weight loss is generally higher during the first months of a weight loss programme: weight loss begins faster (especially during the first 2 months), and then tends to steadily slow.

There are huge individual variations, and in some patient's a rate of weight loss above 1% per week (and above 0.5% per week for cats) will be hard to reach after a period of 3 to 4 months. In these patients, if the daily intake allows a continuous weight loss, even slightly under the recommended rate (for example 0.5% per week, in a constant and regular way), the ration can be kept unchanged.

### Scientific reference:

GERMAN, A. J., TITCOMB, J. M., HOLDEN, S. L., QUEAU, Y., MORRIS, P. J. & BIOURGE, V. 2015. Cohort Study of the Success of Controlled Weight Loss Programs for Obese Dogs. J Vet Intern Med, 29, 1547-55.



## **STABILISATION AFTER WEIGHT LOSS**

## How is the energy allocation for maintenance after weight loss calculated?

Several studies have shown that in dogs and cats, the energy requirements to maintain stable body weight after weight loss are lower than the energy requirements of dogs and cats that have never been obese. In dogs, it was shown that after weight loss maintenance energy requirements were typically only 10% higher than the energy intake at the end of weight loss. After reaching target bodyweight, the programme increases the daily ration by 10%. The ration may need to be adjusted during follow-up visit. We recommend waiting at least 4 weeks for the patient to remain at a stable bodyweight without changing the daily ration before switching to maintenance.

German AJ et al. Low-maintenance energy requirements of obese dogs after weight loss. British Journal of Nutrition (2011), 106, S93-S96\_

Serisier S et al. Weight loss and post weight loss maintenance energy requirement of obese colony cats. Proc. 21th ECVIM Congress. Sevilla 2011: 209-210.



### **STABILISATION AFTER WEIGHT LOSS**

### Why do we recommend continuing with a weight loss diet after weight loss?

Weight rebound is quite frequent after weight loss, most likely because the energy requirements of previously obese pets remain low. A clinical study has shown that continuing to feed a specifically formulated weight management diet during the maintenance phase significantly reduces the risk of rebound compared to switching to a standard maintenance diet.

### •<u>Scientific Reference</u>

DEAGLE, G., HOLDEN, S. L., BIOURGE, V., MORRIS, P. J. & GERMAN, A. J. 2014. Long-term follow-up after weight management in obese cats. J Nutr Sci, 3, e25

DEAGLE, G., HOLDEN, S. L., BIOURGE, V., MORRIS, P. J. & GERMAN, A. J. 2014. Long-term follow-up after weight management in obese cats. J Nutr Sci, 3, e25

GERMAN, A. J., HOLDEN, S. L., MORRIS, P. J. & BIOURGE, V. 2012. Long-term follow-up after weight management in obese dogs: the role of diet in preventing regain. Vet J, 192, 65-70.

(Deagle et al., 2014)

### **MAINTENANCE**



## How is the energy allocation for maintenance in cats calculated?

The initial energy allocation is calculated using the following formulas:

	Daily allocation
Low activity	62.1 kcal/kg <sup>0.711</sup>
Moderate activity	77.6 kcal/kg <sup>0.711</sup>
High activity	93.1 kcal/kg <sup>0.711</sup>

The starting ration may need to be adjusted during follow-up visits, based on each individual's response.

### •Scientific Reference:

BERMINGHAM, E. N., THOMAS, D. G., MORRIS, P. J. & HAWTHORNE, A. J. 2010. Energy requirements of adult cats. Br J Nutr, 103, 1083-93.



## How is the energy allocation for maintenance in dogs calculated?

The initial energy allocation depends on sexual status and activity. It is calculated using the following formulas:

	Neutered dogs (daily allocation)	Intact dogs (daily allocation)
Low activity	80 kcal/kg <sup>0.75</sup>	95 kcal/kg <sup>0.75</sup>
Moderate activity	95 kcal/kg <sup>0.75</sup>	110 kcal/kg <sup>0.75</sup>
High activity	110 kcal/kg <sup>0.75</sup>	125 kcal/kg <sup>0.75</sup>

The starting ration may need to be adjusted during follow-up visits, based on each individual's response.

### •Scientific Reference:

BERMINGHAM, E. N., THOMAS, D. G., CAVE, N. J., MORRIS, P. J., BUTTERWICK, R. F. & GERMAN, A. J. 2014. Energy requirements of adult dogs: a meta-analysis. PLoS One, 9, e109681.