

# Weight Management

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## Case Summary

Obesity is a serious and growing health concern in companion animals. Excess weight can worsen or predispose cats and dogs to serious medical consequences (eg, orthopedic disease, diabetes) as well as affect longevity and quality of life; however, weight management by the veterinary team can help overweight patients live longer, healthier lives.



### Medical History

Milo, an overweight 7-year-old neutered Labrador retriever, presented for a weight management plan 6 months after orthopedic surgery to repair a right cranial cruciate ligament (CrCL) injury.

Before the injury, Milo weighed 34 kg and had a BCS of 6/9; on presentation, both had increased during postoperative recovery and he weighed 44 kg and had a BCS

of 8/9. Milo demonstrated normal muscle condition. At the time of surgery, laboratory work (ie, CBC, serum biochemistry, urinalysis) was within normal limits.

A full physical examination revealed no clinically significant abnormalities, and an orthopedic examination determined that Milo had fully recovered from the surgery. The injured joint was stable and the other knee showed no laxity on palpation.

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The clients were cautioned that dogs with previous CrCL injuries may be predisposed to further orthopedic problems, especially if they are overweight.<sup>1,2</sup>

## Dietary History

An initial diet history using the World Small Animal Veterinary

Association (WSAVA) nutrition assessment guidelines<sup>3</sup> (see **Resources**) revealed that Milo was receiving an unknown calorie amount from table scraps in addition to 600 kcal/day from an over-the-counter weight management adult dry dog food, fed twice a day, with the nutrient profile shown in **Table 1**.

## Resources

- American Animal Hospital Association (AAHA) 2014 Weight Management Guidelines: [www.aaaha.org/public\\_documents/professional/guidelines/weight\\_management\\_guidelines.pdf](http://www.aaaha.org/public_documents/professional/guidelines/weight_management_guidelines.pdf)
- Pet Nutrition Alliance: [www.petnutritionalliance.org](http://www.petnutritionalliance.org)
- Shmalberg J. Beyond the Guaranteed Analysis: Comparing Pet Foods. *TVP*. 2013: January/February;43.
- World Small Animal Veterinary Association Nutrition tool kit: [www.wsava.org/nutrition-toolkit](http://www.wsava.org/nutrition-toolkit)

TABLE 1 | **Weight Management Adult Dry Dog Food**

**Weight management adult dry dog food is formulated to meet the nutritional levels established by the Association of American Feed Control Officials (AAFCO) Dog Food Nutrient Profiles for adult maintenance.**

3,430 kcal/kg

400 kcal/cup

### Guaranteed Analysis (g nutrient/100 g food):

Crude protein	Not less than 20.2%
Crude fat	Not less than 9%
Crude fiber	Not more than 4%*

\*Crude fiber only measures some insoluble fibers

### Conversion to an Energy Basis (Guaranteed Analysis Value ÷ 3,430 kcal/kg x 1,000)

5.9 grams of protein/100 kcal

2.6 grams of fat/100 kcal

1.2 grams of crude fiber/100 kcal

For comparative purposes, AAFCO's minimum guidelines for adult maintenance diets are 4.5 grams of protein/100 kcal and 1.4 grams of fat/100 kcal. There are no fiber guidelines as it is not an essential nutrient.

# Treatment Plan

## Determination of Ideal Body Weight

The veterinary nurse used AAHA's 2014 Weight Management Guidelines (see **Resources**) to calculate Milo's ideal body weight at 30.8 kg based on his BCS of 8/9, which is estimated to be ≈30% overweight. (To make this calculation:  $44 \text{ kg} \times 30\% = 13.2 \text{ kg}$ ;  $44 - 13.2 \text{ kg} = 30.8 \text{ kg}$ ).<sup>4</sup>

## Assessment of Current Diet

The 2014 AAHA Guidelines recommend a food that contains >6.0 grams of protein/100 kcal to meet canine protein needs if the dog is fed 80% of resting energy requirements for ideal body weight.<sup>4</sup> Milo's food contained a minimum of 5.9 grams of protein/100 kcal, which could be considered too low if restricting calories to 80% of resting energy requirement (RER). Additionally, AAFCO guidelines require that *low-calorie*, *light*, or *lite* dry dog food diets must provide fewer than 3,100 kcal/kg.<sup>5</sup> Milo's diet provided 3,430 kcal/kg but its name did not contain any of those terms. *Weight management* is not a term regulated by AAFCO guidelines.

## Dietary Selection & Plan

Milo was switched to a therapeutic weight loss food containing 9 grams of protein/100 kcal, 3,000 kcal/kg,

## TABLE 2 | Dietary Plan

### Resting Energy Requirements

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$$\text{kcal/day} = 70 \times (\text{ideal body weight [kg]})^{0.75}$$

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$$70 \times (30.8 \text{ kg})^{0.75} = 915 \text{ kcal/day for Milo's ideal body weight}$$

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### Treat Allowance

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$$915 \times 10\% = 92 \text{ kcal for treats daily}$$

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$$915 - 92 = 823 \text{ kcal for the therapeutic weight loss food daily}$$

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Because the food was 280 kcal/cup, the clients were instructed to feed Milo 3 cups daily (840 kcal/day). The treat allowance was adjusted to 75 kcal/day for a total of 915 kcal/day.

and 280 kcal/cup (see **Table 2**). Because Milo's calorie intake could not accurately be measured, the veterinary nurse calculated his maintenance energy requirement for weight loss and a 10% treat allowance.<sup>4</sup>

## Rate & Follow-Up

Progress weigh-ins with a veterinary nurse were scheduled every 2 weeks initially to ensure Milo lost 1% to 2% of his body weight per week. At his first weigh-in, Milo had not lost any weight. Another full diet history determined that he was receiving a 590 kcal chew treat every day to distract him during dinner. The veterinary nurse recommended that the clients occupy Milo by providing his evening meal in a food puzzle. Two weeks later, Milo weighed 43 kg, which was 1.1% body weight

loss per week ( $44 \text{ kg} - 43 \text{ kg} = 1 \text{ kg}$ ;  $1 \text{ kg}/44 \text{ kg}/2 \text{ weeks} \times 100 = 1.1\%$  body weight loss per week).

## Outcome

Four months later, the family was continuing to follow the treatment plan, Milo was weighed monthly, and he weighed 35 kg (77 lb) with a BCS of 6/9. He is expected to reach his goal weight in another 2 months if he continues to lose 1% of body weight per week.

**Clients may need social and psychological support to successfully help their pet lose weight.**

## Team Training

### Harnessing the Human–Animal Bond

Clients may need social and psychological support in addition to veterinary support to successfully help their pet lose weight. The human–animal bond is an important aspect of weight management and may affect clients' willingness to comply with the treatment plan in positive and negative ways. For example, owners with a strong bond to their pet may be more willing to devote time and money to veterinary care and adhering to a weight management plan; however, that strong relationship may also make them less inclined to withhold food or treats they feel foster that relationship (ie, the *Food is love* phenomenon).<sup>6</sup>

Understanding a client's relationship with his or her pet can build trust between the veterinary team and the client. Weight management plans can be designed to strengthen the relationship, which may help with adherence. Obtaining a full dietary history, discussing the client's non-negotiables, and asking about the biggest challenges will help the veterinary team tailor the weight management plan to ensure optimal

adherence and success. In Milo's case, the veterinary nurse elicited the chew toy as a non-negotiable that was addressed by substituting a food puzzle to keep Milo occupied while his owners ate dinner.

### Team Training

All team members can help create and reinforce a nutritional plan. For example, a veterinarian and client may decide on a therapeutic weight loss diet, and veterinary nurses can further discuss client expectations (eg, increased stool production with a higher fiber diet) and determine a timeline for follow-up.

Client service representatives can set up delivery of the diet or set reminders for follow-up weigh-ins. Team members also can provide helpful handouts (eg, BCS charts, lists of low-calorie treats). Reaching out to clients throughout a patient's weight management plan will help reinforce the recommendations, show support, and strengthen the bond between the client and veterinary team.

For example, Milo's veterinary nurse showed excellent communication by reviewing a full diet history with the clients during a progress examination to address potential challenges, instead of simply restricting the diet without fully understanding the patient's environment.

**Weight management plans can strengthen the veterinary team–client relationship.**

## Client Communication

### Communication Strategies

Team members should focus on these core communication strategies when discussing nutrition with clients<sup>7</sup>:

- Open-ended questions
- Reflective listening
- Nonverbal communication
- Empathy.

These strategies can help clients feel valued and respected and lead to increased trust in the veterinary team and improved patient outcomes.

### Obtaining Nutrition Information

Obtain a complete dietary history that includes all food items, including treats and table food, to accurately estimate daily calories. Spend time assessing the current diet, including supplements, treats, rawhides, dental chews, and foods used to administer medications. Clients may not realize that chews or bones are a source of calories or that some human foods can be toxic to pets.

To save time, ask clients to fill out a dietary history form at home or in the waiting room, which allows the veterinary team to summarize the history with the client and ask pertinent follow-up questions. Open-ended questions such as *What*

*treats does your pet enjoy?* may yield more information than *Do you feed your pet treats?*, which could come across as judgmental.

In Milo's case, open-ended questions at the initial appointment about the family's challenges, which included occupying Milo's time during dinner, may have elicited the information about the additional treats that were impacting his weight loss.

## Providing Nutrition Information

A wealth of information (and misinformation) about pet nutrition and obesity is available to clients in books and online. Providing clients with vetted websites and handouts can minimize confusion and inadvertent nonadherence resulting from misinformation. The WSAVA Nutrition Toolkit has many handouts such as BCS sheets, calorie recommendations for healthy cats and dogs, and guides for selecting quality pet foods (see **Resources**, page 36).

Nonverbal communication can help decipher if a client does not understand or may need the information rephrased. Avoid vague statements such as *Switch to a light diet*, as weight loss diets have a wide range of calorie densities, can be confusing to clients because not all follow AAFCO's guidelines for light diets, and are not all appropriate for weight loss.<sup>8</sup> Making specific recommendations to clients, including calories per day and amounts of an appropriate diet, will prevent confusion.

## Conclusion

Effective communication about nutrition can facilitate a trusting relationship between clients and the veterinary team. Using dialogue rather than instruction helps owners take an active role in their pet's care, and following the core communication strategies helps the veterinary team develop a treatment plan that strengthens the owner's commitment and facilitates adherence to weight management. ■

## References

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changes in dogs. *JAVMA*. 2002;220(9):1315-1320.

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## TEAM TAKEAWAYS:

**Veterinarians:** Always explain to clients the less obvious consequences of overweight pets (eg, diabetes, orthopedic disease), how obesity affects quality of life, and that a weight-loss program can strengthen the human-animal bond.

**Management Team:** Be familiar with common therapeutic diets so you can explain their benefits, and the reason for their higher costs, to clients.

**Nursing Team:** Clients often do not include *everything* they feed their pet when giving a nutrition history, so question them extensively about extra food (eg, table food, treats) the patient eats before formulating a weight management plan.

**Client Care Team:** Client service representatives can encourage compliance by setting up delivery of recommended diets to clients, making appointments for progress weigh-ins, and providing helpful handouts.