

# Treating an Overweight Patient with Hip Pain

Winston, a 10-year-old, neutered male flat-coated retriever, presented for evaluation of hip pain.



**History.** The owner reported a 1-year history of “slowing down,” with a recent inability to jump on the bed and climb stairs. Radiographs from the referring veterinarian revealed hip dysplasia in the right coxofemoral joint. Treatment with deracoxib did not improve clinical signs, and the owner was interested in pursuing total hip replacement surgery.

Current treatment included neuromuscular massage, magnetic massage, and chiropractic therapy approximately once a month. Current diet included a commercial dry dog food (2 cups daily), boiled ground turkey (1/8 lb daily), cooked rice (1/2 cup daily), mixed raw vegetables (1/8 cup daily), and chicken breast strips (1/3 ounce daily). In addition to his regular diet, Winston received 4 Synovi-G3 Soft Chews (tevaanimal health.com) daily.

**Physical Examination.** Winston’s body weight was 40.3 kg, with a body condition score (BCS) of 7.5/9. Morphologic measurements were as follows: height to shoulder, 51 cm; chest girth, 91.5 cm; waist girth, 82 cm. The patient had mild to moderate atrophy of semitendinosus and semimembranosus muscles in the right pelvic limb and pain on extension of the right pelvic limb. All other findings were within normal limits.

**Laboratory Results.** CBC, serum biochemical profile, and thyroxine level were unremarkable.

**There's More!**  
see **Body Condition Score Techniques for Dogs**, page 13

CONTINUES

**ASK YOURSELF...**

What initial plan is the most appropriate for Winston?

- A. Schedule immediate surgery to perform total hip replacement
- B. Reduce daily amount of current diet to promote weight loss and schedule total hip replacement in 2 weeks
- C. Reduce daily amount of current diet to promote weight loss and schedule follow-up weight loss check in 2 weeks
- D. Recommend transitioning to a veterinary therapeutic weight-loss food and schedule total hip replacement in 1 month
- E. Recommend transitioning to a veterinary therapeutic weight-loss food and schedule follow-up weight-loss check in 2 weeks



Maintaining healthy body weight has been shown to delay onset of hip joint osteoarthritis.

**CORRECT ANSWER**  
**E. RECOMMEND TRANSITIONING TO A VETERINARY THERAPEUTIC WEIGHT-LOSS FOOD AND SCHEDULE FOLLOW-UP WEIGHT-LOSS CHECK IN 2 WEEKS**

The prevalence of osteoarthritis is greater in overweight and obese dogs.<sup>1</sup> Overweight dogs have an increased prevalence of lesions in the hip and shoulder joints, and increased severity of osteoarthritis in the elbow joint, compared to dogs with a healthy body weight.<sup>2</sup> Maintaining a healthy body weight has also been shown to delay onset of hip joint osteoarthritis; overweight dogs show radiographic evidence of hip disease at 6 years versus 12 years in control dogs.<sup>3</sup>

**Assessment.** Because obesity was contributing to Winston's clinical signs and would negatively affect surgical recovery, implementing a weight-loss plan with an appropriate veterinary food was the most appropriate course of action.<sup>4</sup> Winston was approximately 25% overweight. Estimated time for achieving ideal body condition, with a weight loss rate of 0.5% to 1.5% body weight per week, was approximately 8 months.

**Diet Considerations.** When developing a weight-loss plan, it is important to feed a diet that has increased protein and other essential nutrients. Feeding a high-protein diet has been shown to promote fat loss and aid in maintaining lean body mass during weight loss.<sup>5</sup> In addition, increased essential micronutrients help ensure that an appropriate level are being delivered while restricted levels of food are being fed.<sup>6</sup> Winston's current diet contained a significant amount of unbalanced home-prepared foods; therefore, it was not appropriate for active weight loss.

**Caloric Calculations.** Many different energy calculations can be used to determine the number of calories to feed for weight loss. It is often recommended to start with the pet's resting energy requirement for current body weight,<sup>7</sup> or feed 60% to 80% of the dog's maintenance energy requirement at the ideal body weight.<sup>8</sup>

However, because individual energy needs can vary as much as 50% from calculated value, it is ideal to start by feeding 80% of the current caloric intake when this information can be obtained through diet history. Because treats can significantly contribute to a pet's daily intake, it is important to provide appropriate guidelines for owners. A treat allowance of up to 10% of total daily calories is recommended.

**Winston's Plan.** Winston's current diet provided approximately 938 kcal/d (660 kcal from dry kibble, 238 kcal from home-cooked foods, and 40 kcal from Synovi-G3 Soft Chews). Winston's weight loss plan included 775 calories per day, with 705 kcal coming from a veterinary weight-loss food and 70 kcal allotted for treats. Low-calorie treat ideas with daily amounts were provided. The owner was instructed to weigh Winston every 2 weeks, on the same scale, to ensure that he was losing weight at an appropriate rate.

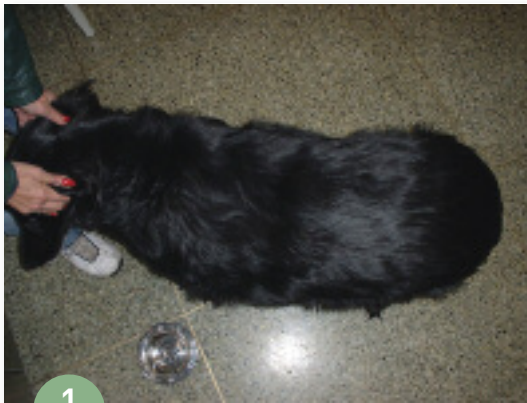
**Follow-up.** Biweekly follow-up consultations were conducted by phone to ensure appropriate weight loss rate and feeding plan. At a 9-week recheck, Winston had a weight loss of 4.7 kg and a BCS of 6.5/9 (**Figures 1 and 2**). Morphologic measurements showed reduction in chest girth (87.5 cm) and waist girth (73 cm). The owner reported that Winston's energy level had significantly improved and that he no longer required pain medication.

BCS = body condition score; kcal = kilocalorie

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FIND MORE

For more information on determining resting and maintenance energy requirement, see **Canine Obesity—A Treatable Condition**, March 2009 (available at [cliniciansbrief.com](http://cliniciansbrief.com)).



1 Nine-week weight loss follow-up: View from above.



2 Nine-week weight loss follow-up: View from the side.

A reevaluation by the orthopedic surgeon determined that Winston's clinical signs had significantly improved and a total hip replacement was not indicated. The owner was instructed to continue the weight loss plan until Winston reached a BCS of 4-5/9. Once an ideal body weight was reached, it was recommended that he could be weaned onto a commercial pet food designed for weight maintenance.

Winston was seen again 2 years later for unrelated reasons. By that time he was maintaining a BCS of 5/9 and a body weight of 34.8 kg. The owner reported that he had been doing well, with good activity and frequent trips to the beach (Figure 3).

See Aids & Resources, back page, for references and suggested reading.

### TAKE-HOME MESSAGES

- Weight loss can help substantially reduce clinical signs associated with orthopedic disease and may help reduce or eliminate the need for medical and surgical treatment.
- Underlying medical conditions, such as hypothyroidism, should be ruled out before a weight-loss plan is initiated.
- Veterinary therapeutic weight-loss foods are designed to provide appropriate levels of essential nutrients for active weight loss while permitting caloric restriction.
- Obtaining an accurate diet history is important when determining the pet's maintenance energy requirement and appropriate kcal/d to feed for effective weight loss.
- Outlining weight-loss goals and expected rates of weight loss are important to help define expectations and measure success.
- Frequent monitoring and adjustment of the feeding plan are essential to weight-loss success.



3 Winston after desired weight loss was achieved