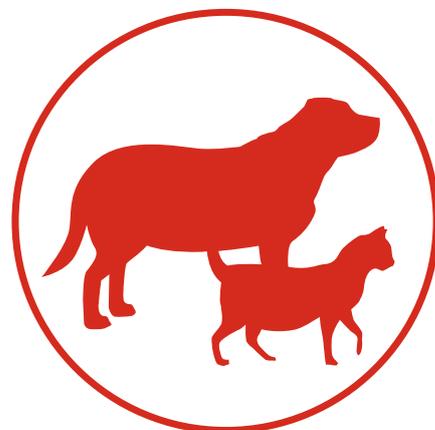


**Abnormal Body Condition**

# OBESITY IN DOGS AND CATS



Worldwide, studies estimate that up to 63% of pet cats and 59.3% of pet dogs are overweight or obese.<sup>1</sup> This condition is linked with many diseases, including osteoarthritis and feline diabetes.<sup>2,3</sup> Studies also show that overweight or obese pets do not live as long as their leaner counterparts.<sup>4-6</sup>

Despite the serious health consequences of excess weight, surveys show that pet owners often do not perceive their pet's weight as a problem.<sup>1,7,8</sup> Better understanding—and communicating—the role of nutrition in managing excess weight in pets can help cats and dogs lead better, longer lives.<sup>9</sup>

**Key Messages**

- The first step in addressing excess weight in pets is recognizing the ideal body condition for an individual dog or cat. Determining ideal body condition includes:
  - Measuring body weight. However, weight is only one aspect of healthy body condition. Weight says nothing about the composition of the body (fat versus lean body mass). Weight can stay the same while fat mass increases and lean body mass declines with age.
  - Assessing excess fat using the Purina 9-point Body Condition Score (BCS) system:
    - Ideal BCS for cats is 5 and for dogs is 4–5.
    - Pets are considered obese at BCS above 7.
    - Although owners tend to underestimate the condition of their pet,<sup>10</sup> studies show that pet owners are better able to correctly identify BCS after seeing a BCS score chart.<sup>11,12</sup>
  - Evaluating muscle mass with a 4-point Muscle Condition Scoring (MCS) system, which can help account for losses of lean body mass that may occur even in overweight pets.
- Dietary therapy is a cornerstone of weight management, both in achieving and maintaining ideal body condition.
  - Estimate the pet's daily calorie allowance for weight loss by calculating the pet's Maintenance Energy Requirement (MER) for its target body weight, and then reduce that allowance by 25–40%.
  - Caloric restriction should aim for a gradual weight loss of 0.5–1% of body weight per week in cats, and 1–2% in dogs.<sup>13</sup> Due to individual differences in MER that can vary by 50% from average, it may be necessary to adjust intake in order to achieve the desired rate of weight loss. Too rapid weight loss can lead to weight rebound after achieving target body weight.

*(continued on next page)*

## Key Messages (continued)

- Formulate a detailed weight loss plan based on daily calorie allowance.<sup>14</sup>
  - Identify exactly which food(s) the owner should feed.
    - Use a diet with an increased ratio of essential nutrients to calories so that intake of essential nutrients is maintained while calories are restricted.
    - Key nutrients include protein and fiber.
    - Soy isoflavones and carnitine also provide benefits.
    - Consult with a veterinary nutritionist if a homemade diet is elected. Many published recipes are not nutritionally adequate and can lead to health problems.<sup>15</sup>
  - Measuring the food can help ensure successful weight management. Gram scales are the most accurate but measuring cups are also useful.
  - Factor treats or other foods into the total daily calorie intake. Keep them to less than 10% of the total.
  - Prepare pet owners to manage food-seeking behaviors when pets are on calorie restriction. Include suggestions for non-food related activities and for use of food toys.
- Monitor body weight, BCS, and MCS every 4 weeks and adjust calorie intake as needed.<sup>14</sup>
  - MER may change as a pet loses weight.
  - Once the target body condition is met, a pet's energy needs will still be lower than prior to weight loss. Begin refeeding by increasing calorie allowance by 10%, then adjust as needed to maintain weight.
- Owner beliefs and behaviors can affect when—or if—they are ready to address their pet's obesity.<sup>9,16</sup>
  - Focus on the relationship between pet and pet owner.
  - Emphasize how veterinary nutrition can improve a pet's quality of life and prevent debilitating diseases.

## References

1. Larsen, J. A., & Villaverde, C. (2016). Scope of the problem and perception by owners and veterinarians. *Veterinary Clinics of North America: Small Animal Practice*, 46(5), 761–772.
2. German, A. J., Ryan, V. H., German, A. C., Wood, I. S., & Trayhurn, P. (2010). Obesity, its associated disorders and the role of inflammatory adipokines in companion animals. *Veterinary Journal*, 185(1), 4–9.
3. Laflamme, D. P. (2012). Obesity in dogs and cats: What is wrong with being fat? *Journal of Animal Science*, 90, 1653–1662.
4. Penell, J. C., Morgan, D. M., Watson, P., Carmichael, S., & Adams, V. J. (2019). Body weight at 10 years of age and change in body composition between 8 and 10 years of age were related to survival in a longitudinal study of 39 Labrador retriever dogs. *Acta Veterinaria Scandinavica*, 61(1), 42.
5. Salt, C., Morris, P. J., Wilson, D., Lund, E. M., & German, A. J. (2019). Association between life span and body condition in neutered client-owned dogs. *Journal of Veterinary Internal Medicine*, 33(1), 89–99.
6. Teng, K. T., McGreevy, P. D., Toribio, J. L., Raubenheimer, D., Kendall, K., & Dhondt, N. K. (2018). Strong associations of nine-point body condition scoring with survival and lifespan in cats. *Journal of Feline Medicine and Surgery*, 20(12), 1110–1118.
7. Eastland-Jones, R. C., German, A. J., Holden, S. L., Biourge, V., & Pickavance, L. C. (2014). Owner misperception of canine body condition persists despite use of a body condition score chart. *Journal of Nutritional Science*, 3, e45.
8. Singh, R., Laflamme, D. P., & Sidebottom-Nielsen, M. (2002). Owner perceptions of canine body condition score. *Journal of Veterinary Internal Medicine*, 16, 362.
9. Churchill, J., & Ward, E. (2016). Communicating with pet owners about obesity: Roles of the veterinary health care team. *Veterinary Clinics of North America: Small Animal Practice*, 46(5), 899–911. doi: 10.1016/j.cvsm.2016.04.010
10. German, A. J. (2016). Obesity prevention and weight maintenance after loss. *Veterinary Clinics of North America: Small Animal Practice*, 46(5), 913–929. doi: 10.1016/j.cvsm.2016.04.011
11. Colliard, L., Paragon, B. M., Lemuet, B., Bénet, J. J., & Blanchard, G. (2009). Prevalence and risk factors of obesity in an urban population of healthy cats. *Journal of Feline Medicine and Surgery*, 11(2), 135–140. doi: 10.1016/j.jfms.2008.07.002
12. Peron, L., Rahal, S. C., Castilho, M. S., Melchert, A., Vassalo, F. G., Mesquita, L. R., & Kano, W. T. (2016). Owner's perception for detecting feline body condition based on questionnaire and scores. *Topics in Companion Animal Medicine*, 31(3), 122–124. doi: 10.1053/j.tcam.2016.08.008
13. Laflamme, D. P. (2006). Understanding and managing obesity in dogs and cats. *Veterinary Clinics of North America: Small Animal Practice*, 36, 1283–1295.
14. Shepherd, M. (2021). Canine and feline obesity management. *Veterinary Clinics of North America: Small Animal Practice*, 51(3), 653–667. doi: 10.1016/j.cvsm.2021.01.005
15. Stockman, J., Fascetti, A. J., Kass, P. H., & Larsen, J. A. (2013). Evaluation of recipes of home-prepared maintenance diets for dogs. *Journal of the American Veterinary Medical Association*, 242(11), 1500–1505. doi: 10.2460/javma.242.11.1500
16. Webb, T. L., du Plessis, H., Christian, H., Raffan, E., Rohlf, V., & White, G. A. (2020). Understanding obesity among companion dogs: New measures of owner's beliefs and behaviour and associations with body condition scores. *Preventive Veterinary Medicine*, 180, 105029.

The Purina Institute aims to help put nutrition at the forefront of pet health discussions by providing user-friendly, science-based information that helps pets live longer, healthier lives.