



## Puppy & Adult Dog

# PUPPIES AND ADULT DOGS: THE IMPORTANCE OF STAYING LEAN

Maintaining a lean body condition from puppyhood throughout the dog's life is associated with increased longevity and delayed onset of signs of chronic disease including orthopedic diseases, diabetes mellitus, and certain types of cancer.



### Key Messages

- Studies show the benefits of maintaining a lean, healthy body condition:
  - A 14-year study in Labrador Retrievers (the Purina Life Span Study) showed that dogs fed to a lean body condition had a lower frequency of hip dysplasia as young adults, and lower prevalence and severity of osteoarthritis, delayed onset of chronic disease, and an increased median life span.
  - A more recent study across 12 different dog breeds (small, medium and large breeds) found overweight body condition to be associated with a shorter life span.

*(continued on next page)*

**DID YOU KNOW?**

A Purina study showed that when kept in a lean body condition from puppyhood and throughout their lives, dogs can live up to 15% longer and the onset of chronic disease can be delayed.

## Key Messages (continued)

- **Prevention of obesity is crucial, as obese puppies are at greater risk of becoming obese adults.**
  - Feeding puppies to a lean body condition helps them to stay lean in the long term. Over-nutrition early in life results in an increased number of adipocytes (fat cells) and a higher total body fat in adulthood.
  - Regular exercise aids in the achievement of energy balance, supports normal muscle development, and enhances the human/animal bond. Daily running, walking, playing, swimming or retrieving for 20–40 minutes is adequate for most dogs.

## Additional Resources

Case, L. P., Daristotle, L., Hayek, M. G., & Raasch, M. F. (2011). *Canine and feline nutrition: A resource for companion animal professionals* (3rd ed.). Mosby. doi: 10.1016/B978-0-323-06619-8.10025-8

Laflamme, D. P. (2012). Obesity in dogs and cats: What is wrong with being fat? *Journal of Animal Science*, 90, 1653–1662. doi: 10.2527/jas.2011-4571

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, 89–99. doi: 10.1111/jvim.15367

Kealy, R. D., Lawler, D. F., Ballam, J. M., Mantz, S. L., Biery, D. N., Greeley, E. H., Lust, G., Segre, M., Smith, G. K., & Stowe, H. D. (2002). Effects of diet restriction on life span and age-related changes in dogs. *Journal of the American Veterinary Medical Association*, 220(9), 1315–1320. doi: 10.2460/javma.2002.220.1315

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.