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Overweight, Obesity and Pain in Dogs: Overview

Is overweight and obesity really a problem for dogs?

More than 50% of dogs and cats in North America are overweight or obese. These epidemic levels are reflected in

the human population as well. Obesity in pets is now the most important disease process pet owners must face. And the effects of obesity are far reaching because it contributes to many other diseases and shortens dogs' lives.

What other medical conditions are associated with obesity?

Obesity dramatically increases the risk of diabetes mellitus, heart disease, and cancers of all types. The most recent scientific data reveals that moderate excess weight alone actually shortens a dog's life expectancy by as much as 2 years.

Obesity contributes to many other diseases, such as diabetes, heart disease and cancers and shortens dogs' lives.



Overweight and obesity set the stage for increased risk of joint damage and subsequent osteoarthritis (OA), leading to chronic pain. At least 20% of all dogs, regardless of age, show evidence of OA. The risk of OA goes up with age as well as with increasing bone structure size, so the older and bigger the dog, the more likely it is to suffer from the inflammation and pain of OA. And unfortunately, dogs that are overweight or obese traumatize their joints over a very long period before we can see clinical evidence of the damage. It takes years of joint damage for changes from OA to show up on an x-ray.

Is there more to this linkage between overweight/obesity and pain?

Until recently, veterinarians thought that the increased pain and inflammation associated with OA in overweight and obese dogs was primarily due to the increased wear and tear on the joints. What we now know is that fat tissue is very biologically active and secretes hormones and other chemicals that both cause and enhance inflammation. The hormone leptin, which is produced by fat cells, causes inflammation when it infiltrates joints. In addition, leptin may influence the bone changes associated with OA. Finally, inflammation can affect the body's responses to other hormones such as cortisol and insulin, further unbalancing the body's attempts at self-regulation and influencing the amount and extent of pain dogs experience.

The important underlying message is that fat itself contributes to inflammation; inflammation is a part of the pain associated with OA and degenerative joint disease; and overweight and obesity contribute to this vicious cycle.

How can I tell if my dog is overweight or obese?

The most reliable way to evaluate a dog's body condition is with a hands-on examination. There are three key areas of the body to evaluate:

- Just behind the shoulder blades, you should be able to feel individual ribs easily with the flats of your fingers.
- At the end of the ribcage where the lower back begins, you should feel a clear indentation—similar to the shape of an hourglass—on your dog's sides.
- The abdomen should look "tucked up." If you were to draw a line along the abdomen from the end of the breastbone to the pelvis, the angle should be between 30° and 45°.



If all of these criteria are met, odds are strong that your dog is in good body condition, which will contribute to a pain-free lifestyle.

I'm not sure if my dog is overweight or obese. How can I be sure?

The best first step in the "battle of the bulge" is an evaluation by your dog's veterinarian. Your dog's weight and body condition score will be recorded in your dog's medical record as a baseline (starting point). Be sure to ask that a pain assessment be included in the exam. If pain is present, the earlier it is detected, the quicker your dog can be treated and have its pain resolved.

I know my dog is overweight. What can I do?

Your veterinarian is your best resource for canine weight loss. He or she will recommend a specific food and portion per day and will provide guidance about how to deliver that portion based on lifestyle, convenience, and your dog's individual needs. If there is already evidence of OA, reducing inflammation and pain will help encourage your dog to become more active, which in turn will speed appropriate weight loss.

What is my take-home message?

Fat cells contribute to inflammation. Inflammation causes pain. Therefore, having extra fat cells sets dogs up to become and remain painful! The path to successful weight loss and weight maintenance includes partnership with your veterinarian to track results as well as to manage any pain. Regular weigh-ins at your dog's veterinary practice are important steps along the way.

Having extra fat cells contributes to inflammation, which causes pain.

Once appropriate weight and body condition scores are achieved, your veterinarian will recommend a maintenance food and daily portion. Ongoing regular assessments will help track the success of pain management strategies, and weigh-ins will provide accountability and ensure a great long-term outcome. Your dog deserves to achieve its best life!

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