

Obesity is Unhealthy in Dogs and Cats

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Obesity has become an extremely important health problem in the Western world, not just for humans but for dogs and cats as well. Obesity in pets is associated with joint problems, diabetes mellitus, respiratory compromise, and decreased life span; recent estimations suggest that up to 35 percent of dogs and cats in the U.S. suffer from obesity.

Why Obesity is Bad

A common justification for over-feeding treats is that a pet deserves a higher quality of life as a tradeoff for longevity. While this might on some level makes sense (after all, a pet munching on a treat is certainly getting a great deal of satisfaction from doing so), the other consequences do not make for higher life quality in the big picture. Here are some of problems that obese animals must contend with while they are not enjoying their treats and table scraps.

- **Arthritis**
The over-weight animal has extra unneeded stress on joints, including the discs of the vertebrae. This extra stress leads to the progression of joint degeneration and creates more pain. Weight management alone decreases and can even eliminate the need for arthritis medications. The problem is compounded as joint pain leads to poorer mobility, which in turn leads to greater obesity.
- **Respiratory Compromise**
The obese pet has a good inch or two of fat forming a constricting jacket around the chest. This makes the pet less able to take deep breaths as more work is required to move the respiratory muscles. Areas of the lung cannot fully inflate, so coughing results. The pet also overheats more easily. Many cases of tracheal collapse can be managed with only weight loss.
- **Diabetes Mellitus**
Extra body fat leads to insulin resistance in cats just as it does in humans. In fact, obese cats have been found to have a 50% decrease in insulin sensitivity. Weight management is especially important in decreasing a cat's risk for the development of diabetes mellitus.
- **Hepatic Lipidosis**
When an overweight cat goes off food or partially off food because of illness or psychological stress, body fat is mobilized to provide calories. Unfortunately, the cat's liver was not designed to process a large amount of body fat. The liver becomes infiltrated with fat and then fails. A stress that might have been relatively minor, such as a cold, becomes a life-threatening disaster.
- **Reduced Life Span**
A study of age-matched Labrador retrievers found that dogs kept on the slender side of normal lived a median of 2.5 years longer than their overweight counterparts.
- **Unwillingness to Accept Therapeutic Diets**
If the pet should develop a condition where a therapeutic diet is of great benefit, the pet that has been maintained primarily on a diet of table scraps may be unwilling to accept commercial pet food of any kind, much less a food modified to be beneficial for a specific disease process. This unwillingness will hamper treatment.

- **Increased Surgical/Anesthetic Risk**

Obesity poses an extra anesthetic risk because drug dosing becomes less accurate. (It is hard to estimate a patient's lean body mass for drug dosing if it is encased in a fat suit.) Furthermore, anesthesia is inherently suppressive to respiration and adding a constrictive jacket of fat only serves to make proper air exchange more challenging. And still further, surgery in the abdomen is hampered by the slippery nature of the extra fat as well as difficulty visualizing all the normal structures through the copious fat deposits. One never knows when a pet will require an emergency surgery (to say nothing of regular teeth cleanings).

So is the enjoyment of all those extra treats really worth it?

How Did My Pet Get So Fat Without Eating That Much?

You might think weight management might be easier for a pet than it is for a human. After all, the pet relies completely on someone else for feeding and exercise so it should follow that if the humans in control can regulate feeding and exercise, the pet should lose weight. It seems like this would be true but, as with humans, there is tremendous individuality with how different pets store the food they have eaten. Beyond this, sometimes it is hard to know what a pet is eating or the owner may not have a good sense for how much should be fed. Here are some factors involved.

- **A Cup of Food Depends on the Cup**

When food packages refer to a certain number of cups of kibble being appropriate for a certain body weight, they are referring to an actual measuring cup. This may seem obvious but many mugs, coffee cups, and other scooping cups may not be equal to a cup measure. If you do not have a cup measure, you can often get one from your veterinarian's office as most manufacturers of reducing diets for pets provide free cup measures.

- **The Package Guidelines Are Just Guidelines**

Many packages of food include on their label some sort of feeding schedule that indicates how much food should be fed to a pet of a certain weight. This information is also available on most pet food web sites as well. The problem is that each pet is an individual and just as one person weighing 150 lbs can be obese and another person of the same weight may be skinny, the same is true of pets. These guidelines are meant as a starting point only. If your pet is too fat on the recommended feeding schedule, then you should reduce the amount of food or change to a diet that is higher in fiber so that a satisfying volume of food can still be eaten without adding calories.

- **Genetics**

Some animals simply have the genes that predispose them to obesity. Dog breeds with genetic tendencies towards obesity include the: Golden Retriever, Cocker Spaniel, Dachshund, Beagle, Shetland Sheepdog, Boxer, Cairn Terrier, Basset Hound, Cairn Terrier, and Labrador Retriever.

- **Children at Home**

It is almost impossible to keep children from providing extra treats to their dog. This may include snacks spilled during play (pets have no "five-second rule") or purposely feeding the pet unwanted food under the dining table. Similarly, pets that are allowed to roam (usually cats) often find food left out by neighbors, either to purposely feed their own pets or strays, or as unsecured trash. It is almost impossible to control the diet of an outdoor cat.

- **Low Metabolism**

Some pets do not burn calories efficiently; they simply have a slow metabolism. This might be genetic as mentioned or it might be the result of a disease such as hypothyroidism or Cushing's disease. Testing for health problems such as these is helpful to get the best treatment for resolution of the obesity. It seems like increasing exercise and eating a healthier diet would be easy to accomplish for a pet but it generally does not turn out that way.

- ***Underestimating the Power of Treats***

Many people express their affection for the pet by providing regular treats, and the pet happily obliges by begging or even performing cute behaviors. For some people, feeding treats to the pet constitutes a major part of the human-animal bond and they do not wish to give it up or reduce it. Pet treats are often high in calories, though, and four or five treats readily converts into an extra meal's worth of added fat. Free feeding of dry food encourages the pet to snack as well; meal feeding represents better calorie control.

- ***Neutering***

Sterilizing a pet is good for public health (fewer strays means fewer dog bites, less public resources needed for animal shelters etc.), good for a better house pet (less urine marking, tendency to fight or roam), no unwanted litters, reduced risk of many diseases, etc. The change in the hormonal picture, though, creates a tendency to form more fat cells (creating increased fat storage capacity – especially in female cats), and typically slows metabolism.

Evaluation by Body Score

Sometimes it is hard to recognize that your pet is overweight as the weight gain has come on gradually or it is hard to actually accept that your pet is more than just a little chubby and is now fully obese. To assist in this evaluation, body condition scoring has been developed and is fairly easy to accomplish. There are two scoring systems: a five-point system (where three out of five is considered optimal) and a nine-point system where four to five out of nine is considered optimal). To evaluate your pet, feel for a small amount of padding over the ribs. It should be possible to feel the ribs and there should be a small tuck in the belly where the hind legs meet the body.

See the body condition chart at the end of this article.

What can be Done: Diet and Exercise

This sounds simple but in fact when one simply tries to cut back on food, it just does not seem to work. As with humans, a more formal approach seems to work best. This means feeding a prescription diet made for weight loss (typically “lite” or “less active” diets are meant to prevent weight gain, not actually cause weight loss), feeding a measured amount, and coming in for regular weigh-ins at the vet’s office.

This means:

- There must be control over what the obese pet eats. That’s easy enough if there is only one pet and roaming is not allowed, but trickier if there is more than one pet in the home. Use your ingenuity to feed the pets separately.
- Feed in meals. Leaving food out encourages snacking. Feeding in meals makes it easier to feed multiple pets different foods or different amounts of food.
- Commit to regular weigh-ins. Know what the goal weight is and how long it should take to reach this goal/or how to tell if the pet is on target. It is important not to try to go too fast. If the weight loss is not on track, sometimes it is necessary to feed more rather than less. Your veterinarian may need to be in contact with the clinical nutritionists at the pet food company so as to make the best recommendations.
- Consider interactive toys that can be used when you are not home or where your own participation is minimal.

Be sure to rule out health issues that might specifically cause obesity as an initial step in obesity management.

Nutrigenomics

Nutrigenomics is the study of how food influences the expression of genes and how genes influence the disposition of nutrients. This field is still in its infancy but is rapidly developing such that one day nutritional programs can be designed based on one's own individual genetic composition. We all have seen how different people metabolize the same food in completely different ways and how changing to a similar diet can have varying effects among individuals. There is currently only one commercial diet on the market that uses principles of nutrigenomics to activate genes of fat-burning and create a fat burning metabolism and that only available through veterinary clinics. This food system employs dry food, canned food, and treats in any combination but in amounts determined by the pet's initial body composition and calculated healthy weight. This approach has not been found to be more effective with weight loss over the more traditional high fiber diets but at the end of the program when the desired weight had been achieved, the animals on the nutrigenomic diet had been metabolically altered to reduce storage of consumed fat. Pets on traditional weight loss plans were not metabolically altered and were still "fat storers" and potentially ready to regain the fat stores they had worked so hard to lose. This food is for sale only through veterinarians so if you are interested in this concept, talk to your veterinarian.

Do it Yourself without a Therapeutic Diet

Therapeutic diets are available only through veterinary clinics and authorized diet delivery services. These types of foods are likely to cost more and/or be less convenient to obtain than foods available at the grocery store or pet supply store so a pet owner may be tempted towards do-it-yourself weight loss. As discussed, weight loss often turns out to be more complicated than you imagine. If the problem is simply cutting out treats, adding more exercise or in some way changing the human behavior that led to the pet's weight condition, then you may have a good chance at getting results. If the problem is the pet's metabolism, then it may be an uphill battle. Regular weigh-ins are still crucial and the pet should not lose more than two percent of body weight per week. High-fiber diets tend to work best for dogs while low-carbohydrate diets tend to work better for cats.

For more specific information, please. consult your veterinarian.



Nestlé PURINA

BODY CONDITION SYSTEM

FELINE

CANINE

TOO THIN

1 Ribs visible on shorthaired cats; no palpable fat; severe abdominal tuck; lumbar vertebrae and wings of ilia easily palpated.



2 Ribs easily visible on shorthaired cats; lumbar vertebrae obvious with minimal muscle mass; pronounced abdominal tuck; no palpable fat.

3 Ribs easily palpable with minimal fat covering; lumbar vertebrae obvious; obvious waist behind ribs; minimal abdominal fat.



4 Ribs palpable with minimal fat covering; noticeable waist behind ribs; slight abdominal tuck; abdominal fat pad absent.

IDEAL

5 Well-proportioned; observe waist behind ribs; ribs palpable with slight fat covering; abdominal fat pad minimal.



TOO HEAVY

6 Ribs palpable with slight excess fat covering; waist and abdominal fat pad distinguishable but not obvious; abdominal tuck absent.

7 Ribs not easily palpated with moderate fat covering; waist poorly discernible; obvious rounding of abdomen; moderate abdominal fat pad.



8 Ribs not palpable with excess fat covering; waist absent; obvious rounding of abdomen with prominent abdominal fat pad; fat deposits present over lumbar area.

9 Ribs not palpable under heavy fat cover; heavy fat deposits over lumbar area, face and limbs; distention of abdomen with no waist; extensive abdominal fat deposits.



Call 1-800-222-VETS (8387), weekdays, 8:00 a.m. to 4:30 p.m. CT

VET 2899

TOO THIN

1 Ribs, lumbar vertebrae, pelvic bones and all bony prominences evident from a distance. No discernible body fat. Obvious loss of muscle mass.



2 Ribs, lumbar vertebrae and pelvic bones easily visible. No palpable fat. Some evidence of other bony prominence. Minimal loss of muscle mass.

3 Ribs easily palpated and may be visible with no palpable fat. Tops of lumbar vertebrae visible. Pelvic bones becoming prominent. Obvious waist and abdominal tuck.



IDEAL

4 Ribs easily palpable, with minimal fat covering. Waist easily noted, viewed from above. Abdominal tuck evident.

5 Ribs palpable without excess fat covering. Waist observed behind ribs when viewed from above. Abdomen tucked up when viewed from side.



TOO HEAVY

6 Ribs palpable with slight excess fat covering. Waist is discernible viewed from above but is not prominent. Abdominal tuck apparent.

7 Ribs palpable with difficulty; heavy fat cover. Noticeable fat deposits over lumbar area and base of tail. Waist absent or barely visible. Abdominal tuck may be present.



8 Ribs not palpable under very heavy fat cover, or palpable only with significant pressure. Heavy fat deposits over lumbar area and base of tail. Waist absent. No abdominal tuck. Obvious abdominal distention may be present.

9 Massive fat deposits over thorax, spine and base of tail. Waist and abdominal tuck absent. Fat deposits on neck and limbs. Obvious abdominal distention.



The BODY CONDITION SYSTEM was developed at the Nestlé Purina PetCare Center and has been validated as documented in the following publications:

Mawby D, Borges JW, Moyers T, et al. Comparison of body fat estimates by dual-energy x-ray absorptiometry and deuterium oxide dilution in client owned dogs. *Compendium* 2001; 23 (9A): 70

Lafamme DP. Development and Validation of a Body Condition Score System for Dogs. *Canine Practice* July/August 1997; 22:10-15

Keady, et al. Effects of Diet Restriction on Life Span and Age-Related Changes in Dogs. *JAVMA* 2002; 220:1315-1320