



# Helping owners understand the links between obesity and urinary disease

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Obesity is a well known risk factor for Feline Lower Urinary Tract Disease (FLUTD). However, discussing pet obesity with owners can be challenging for the veterinarian. In this article we explore the extent of this challenge and suggest different approaches that can help overcome owners' resistance to discussing their pets' weight – leading to better communication and more successful treatment of both obesity and urinary disease.

## Obesity is the hardest word

Owner perceptions of healthy body shape is one of the biggest challenges vets face when treating obesity. An Australian study<sup>1</sup> found that words like "chubby" and "fluffy" used by owners to describe their overweight cats are synonymous with "cute". Often, the word "obese" can be taken as an insult, making it harder to have an open conversation about their cat's health and impeding effective management of the condition.

It is a significant problem when treating obesity. Studies<sup>2,3</sup> show that for a group of cats diagnosed as obese by the vet, over 56% of owners did not perceive their cat to be obese. Even worse, cats whose owners do not perceive them to be obese are seven times more likely to stay obese – even when the owner is advised that their cat is overweight and should be given a low-calorie diet<sup>3</sup>.

These findings are backed up by a Swedish study<sup>4</sup> that compared perceptions of obesity between vets and owners in a cohort of cats. When examined by vets, 45% of the cats were identified as being obese – whereas owners identified only 22% of cats as obese.

Furthermore, as cats get older, owners are more likely to misunderstand what healthy weight looks like. At six months old, only 7% of owners reported a body condition score (BCS) of 7 as 'ideal' (figure 2). However, this increased to 11% of owners for cats that were two years old.



## Common risk factors

There are many risk factors in common for both obesity and LUTDs.

A retrospective Australian survey<sup>1</sup> has identified risk factors for obesity that include lack of access to outdoors, eating behaviour and food composition. These same factors can also predispose cats to developing LUTDs, meaning the two diseases often go hand in hand<sup>5</sup>.

Access to outdoors is protective against obesity and LUTDs. Studies<sup>2,3</sup> have shown that the increased physical and cognitive activity in cats with access to the outdoors reduces the risk of obesity three fold.

A predominantly dry diet is one of the main risks for cats developing urinary diseases. Cats fed diets consisting of >75% dry food are also more prone to obesity. In the Bristol cohort study<sup>3</sup>, the follow-up at two years confirmed that cats who eat mainly dry food (>50%) at one and two years of age have a twofold risk of obesity. A mixed or wet diet can counterbalance the risk factors for FLUTD by increasing water intake, whilst also helping to reduce the risk of obesity as wet food is less calorie dense.

Obesity is itself a risk factor for FLUTD. White adipose tissue is a playground for immune cells which secrete pro-inflammatory cytokines<sup>6</sup>, leading to chronic inflammation. This can have secondary systemic effects including FLUTD – one study<sup>4</sup> found that FLUTDs are more frequent in cats with a BCS of over 6,2 (+/- 1,6). Cats with a BCS of 8 or 9 are also at much greater risk of upper urinary diseases and chronic kidney diseases<sup>1</sup>.

### Figure 1: Shared risk factors for both obesity and FLUTD<sup>5</sup>

- Cats affected by stress: perceived threats (others cats, sounds), no safe hiding places
- Boredom, lack of cognitive activities
- Neutered cats
- Sedentary life-style
- Indoor cats
- Lower water consumption



## Dietary management

For cats with FLUTD, diet modifications are key for preventing relapses as well as for managing concomitant diseases such as obesity. These modifications need to be understood and acknowledged by the owner first, and then accepted by the cat who has the last word on food choice.

Introducing a variable proportion of wet food to the daily regimen will be beneficial for cats who were dry only eaters previously. Switching from a dry diet with a moisture content of 6,3% to a wet diet with a moisture content of 73,3% will improve hydration<sup>7</sup> and increase urinary elimination (by up to 36%<sup>9</sup>), which is key for FLUTD prevention and will reduce the risk of urinary stone formation<sup>7</sup>.

Food transition should be progressive<sup>9,10</sup>. For cats used to a dry-only diet, giving them a choice between two textures (mousses, terrines, chunks in jelly or gravy) on separate plates will allow them to find what they like<sup>9</sup>.

For some cats who do not tolerate mixed-feeding, dry food may be the only option. In this case, puzzle feeders can help to reduce begging behaviour and a urinary diet with low caloric density can help manage both diseases.

## References

1. Teng KT, McGreevy PD, Toribio JALML, Raubenheimer D, Kendall K, Dhand NK. (2018) Associations of body condition score with health conditions related to overweight and obesity in cats. *J Small Anim Pract.* 22.
2. Rowe E, Browne W, Casey R, Gruffydd-Jones T, Murray J. (2015) Risk factors identified for owner-reported feline obesity at around one year of age: Dry diet and indoor lifestyle. *Prev Vet Med.* 1;121(3-4):273-81
3. Rowe EC, Browne WJ, Casey RA, Gruffydd-Jones TJ, Murray JK. (2017) Early-life risk factors identified for owner-reported feline overweight and obesity at around two years of age. *Prev Vet Med.* ;143:39-48.
4. Öhlund M, Palmgren M, Holst BS. (2018) Overweight in adult cats: a cross-sectional study. *Acta Vet Scand.* 19;60(1):5.
5. Defaudo PA, Van de Maele I, Duchateau L, et al. (2011) Risk factors and clinical presentation of cats with feline idiopathic cystitis. *J Feline Med Surg;* 13(12):967-75.
6. Dalmas E, Tordjman J, Guerre-Millo M, Clément K. (2011) Adipose tissue, a new playground for immune cells. *Med Sci. (Paris);* 27(11):993-9.
7. Buckley CM, Hawthorne A, Colyer A, Stevenson AE.(2011) Effect of dietary water intake on urinary output, specific gravity and relative supersaturation for calcium oxalate and struvite in the cat. *Br J Nutr;* 106 Suppl 1:S128-30.
8. Greco D. et al, (2014) The effect of feeding inversely proportional amounts of dry versus canned food on water consumption, hydration and urinary parameters in cats, *39th WSAVA Congress*, Abstract
9. Gagnon AC. (2016) Conduite à tenir pour l'approche comportementale de la cystite idiopathique féline, *Le Point Vétérinaire*, 47, 154-160.
10. Michel K, Scherk M. (2012) From problem to success: feline weight loss programs that work. *J Feline Med Surg;* 14(5):327-36.
11. Cameron KM, Morris PJ, Hackett RM, Speakman JR. (2011) The effects of increasing water content to reduce the energy density of the diet on body mass changes following caloric restriction in domestic cats. *J Anim Physiol Anim Nutr;* 95(3):399-408.

## Educating the owner

Giving preventative care advice to owners can be a challenge for the veterinary team, especially when a cat is suffering from a chronic disease such as FLUTD and the owner does not see obesity as a risk factor for health issues.

For this reason, it is essential for vets to take the time to understand the owner and their relationship with the cat – especially any obstacles to achieving healthy weight, including their shared lifestyle, feeding habits, and whether the cat is a greedy eater or a grazer.

This understanding will help the vet to create a tailored nutrition plan and ensure that the owner is ready to follow the plan<sup>10</sup>. For some owners, it may be important to factor in some treats to the diet plan to improve compliance. As vets, we can also empower owners in the weight management process and help to align perceptions on ideal body weight by teaching them to use the BCS<sup>10</sup>.

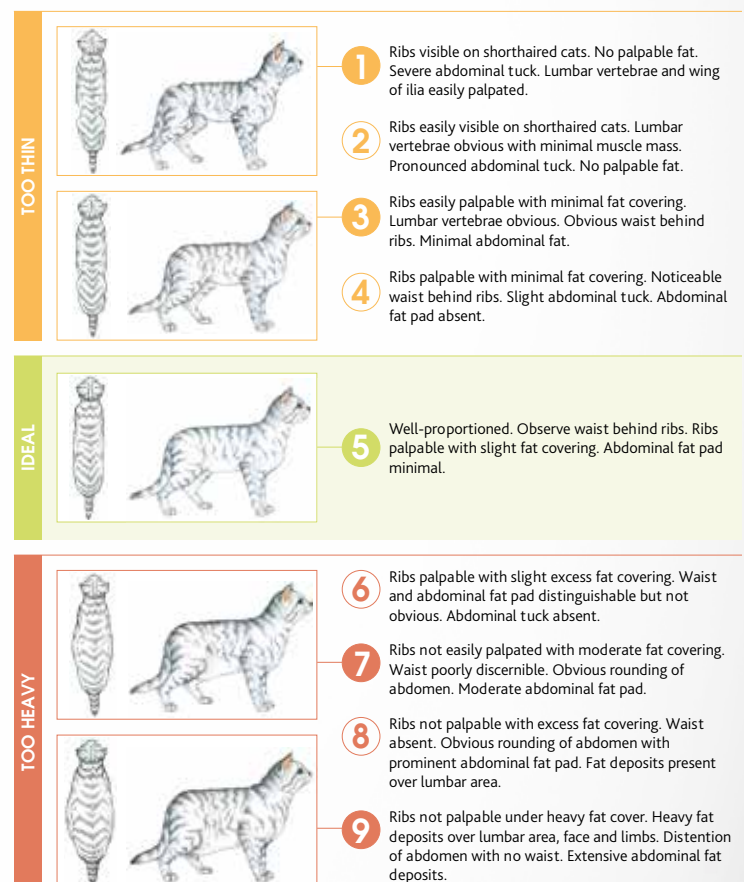


Figure 2: Achieving ideal weight will help prevent FLUTD relapse, as well as other chronic diseases like osteoarthritis that are associated with obesity.