BVA British Veterinary Association | Policy statement

BVNA British Veterinary Nursing Association

BVZS

BEVA

BVA, BVNA, BVZS and BEVA policy position on obesity in dogs, cats, horses, donkeys and rabbits

Introduction

BVA, BVNA, BVZS and BEVA recognise obesity as a serious clinical condition that can cause significant harm to the physiology, health and welfare of all animals. This position statement covers dogs, cats, horses, donkeys and rabbits, as species commonly kept as companion animals in the UK.

Across dogs, cats, horses, donkeys and rabbits, obesity can adversely affect health and welfare by increasing the risk of diseases, causing functional impairment, shortening life span, and reducing overall quality of life. **(See Annex A for breakdown of adverse health and welfare impacts by species).**

Under the UK Animal Welfare Acts[1,2,3], animal owners and keepers must ensure that they meet the five welfare needs of the animals under their care. These five welfare needs are:

- The need for a suitable environment
- The need for a suitable diet
- The need to be able to exhibit normal behaviour patterns
- The need to be housed with, or apart from, other animals
- The need to be protected from pain, suffering, injury and disease

Animals owners and keepers must therefore make sure that the animals in their care receive an appropriate diet, have sufficient opportunities to exercise and express species-specific behaviours, and are protected from any pain, suffering, injury or disease that may result from being overweight or obese.

The veterinary professions, animal owners and keepers, show judges and breeders, breed societies and clubs, animal welfare organisations and marketing professionals, should work together to prevent, manage and increase awareness of obesity in dogs, cats, horses, donkeys and rabbits, as well as promote healthy body images. This can be achieved through:

- Understanding obesity: Cause, risk factors, prevalence and awareness
- Targeted interventions from the veterinary professions to prevent and manage obesity
- Harnessing the influence of the show ring and other animal-related stakeholders
- Responsible marketing and advertising

Understanding obesity

Defining and identifying obesity

It is important to distinguish between animals that are overweight and animals that are obese. We support the following definition of being overweight and obesity:

"Being overweight can be defined as having a body composition where the levels of body fat exceed those considered optimal for good health. Obesity can be defined as being overweight to the extent

[1]Animal Welfare Act 2006 https://www.legislation.gov.uk/ukpga/2006/45/pdfs/ukpga_20060045_en.pdf
[2] Animal Health and Welfare Act (Scotland) 2006 https://www.legislation.gov.uk/asp/2006/11/contents
[3] Welfare of Animals Act (Northern-Ireland) 2011
https://www.legislation.gov.uk/nia/2011/16/pdfs/nia_20110016_en.pdf

that serious effects on the individual's health [and welfare] become likely."[4]

There are several morphometric measurements that have been proposed to assess body condition, weight and body fat in dogs, cat, horses, donkeys and rabbits.[5] Body Condition Scoring (BCS) is the most widely used and practical method for evaluating body condition through visual assessment and palpation. Scoring is guided by animal silhouettes to illustrate visual characteristics for a typical animal or breed, ranging from 'emaciated' to 'severely obese'. Evidence shows that body condition scoring correlates well with more advanced measurements of the amount of body fat.[6]

We support the use of body condition scoring, used alongside the routine monitoring of body weight and physical measurements, to prevent, identify and manage weight gain and the development of obesity.

Across dogs, cats, horses, donkeys and rabbits, different body condition scoring systems exist, ranging from 5-point, 6-point to 9-point scales. We recommend that vets and owners use a system that they can apply consistently and confidently.

In terms of identifying obesity, we recommend the following as a guide:

- **Dogs and cats** - a dog or cat can be considered obese if it weighs 30% above ideal body weight or has a body condition score of 8 or 9 (as per the 9-point scale recommended by the by the *WSAVA Global Nutrition Panel and BSAVA).*[7, 8, 9, 10, 11, 12 , 13]
- **Horses** – using a 9-point scale, equids with a body condition score of 7-9 can be considered to be obese as this typically equates to over 20% of their body mass being fat.[14] Using a 5-point scale, equids with a body condition score of 3-5 can be considered as obese. [15] It should be regarded as normal for horses to have seasonally fluctuating body weight (ie lower body condition score during the winter and higher body condition score during the summer).
- **Rabbits** - rabbits can be considered obese if they weigh 15% above ideal body weight or have a body condition score of 5 as per the PFMA Rabbit Size-O-Meter.

However, it is important to emphasise that optimal per cent body fat can depend on several factors, including the age, breed, gender, existing health conditions and physical fitness of the animal. [16]

Recommendation 1: We support the use of body condition scoring, used alongside the routine monitoring of body weight and physical measurements, to identify, prevent and manage weight gain and the development of obesity in animals.

Recommendation 2: Vets, vet nurses and pet owners should use a body condition scoring system that they can apply consistently and confidently.

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4 Sandøe, P., Palmer, C., Corr, S., Astrup, A., Bjørnvad, CR. (2014) Canine and feline obesity: a One Health perspective Veterinary Record 175, 610-616.
5 Ibid.
6 German, A. J., Holden, S. L., Moxham , G. L., Holmes, K. L., Hackett, R. M. & Rawlings, J. M. (2006) A simple reliable tool for owners to assess the body condition of their dog or cat. Journal of Nutrition 136, 2031-2033
7 WSAVA Body Condition Score chart for dogs
8 WSAVA Body Condition Score chart for cats
9 Laflamme D. Development and validation of a body condition score system for dogs. Canine Pract 1997;22:10-15.
10 Laflamme D. Development and validation of a body condition score system for cats. Feline Pract 1997;25:13-18.
11 German AJ, Holden SL, Bissot T, el al. Use of Starting Condition Score to Estimate Changes in Body Weight and Composition During Weight Loss in Obese Dogs. Res Vet Sci 2009;87:249-254.
12 Bjornvad CR, Nielsen DH, Armstrong PJ, et al. Evaluation of a nine-point body condition scoring system in physically inactive pet cats. Am J Vet Res 2011;72:433-437.
13 BSAVA Position statement on obesity. Available at: https://www.bsava.com/Resources/Veterinary-resources/Position-statements/Obesity
14 D. Rendle et al, 2018. Equine obesity: current perspectives. 2:Sup5, 1-19 UK-Vet Equine 2018 2:Sup5, 1-19 https://doi.org/10.12968/ukve.2018.2.S2.3
15 Ibid.
16 Sandøe, P., Palmer, C., Corr, S., Astrup, A., Bjørnvad, CR. (2014) Canine and feline obesity: a One Health perspective *Veterinary Record* **175,** 610-616.

Cause and risk factors

In animals, obesity can be characterised as abnormal or excessive expansion of white adipose tissue mass (an increase in white fat).[17] In general, obesity results from an imbalance between energy intake and energy expenditure - usually caused by excessive calorie intake or inadequate energy utilisation through movement and exercise. [18]

However, it is important to emphasise that obesity is a multifactorial condition, with several risk factors across species that can lead to weight gain, including:

- **Dietary factors** – excess calorie intake through the number of meals, quantity of treats and snacks, feeding of table scraps, access to grazing, type of grazing, as well as choice of food intake and the price of pet food[19, 20, 21] In addition, inappropriate diet can result in animals overeating to reach their dietary requirements.[22]
- **Lack of exercise** – a relative lack of physical activity can lead to excess energy that is not used and converted into fat.[23,24,25] There is some evidence that exercise may be directly beneficial in reducing the insulin dysregulation in horses that is associated with obesity.[26]
- **Behavioural factors** – for example, in cats, anxiety, depression, abnormal feeding behaviour, and inability to control appetite have all been linked to obesity. [27]
- **Breed and genetics**– evidence indicates that some breeds of cats and dogs are more at risk of becoming obese than others eg. Labradors, golden retrievers, brachycephalic dogs. [2829, 30] For horses and ponies, draught, cob, native and Welsh breeds are more at risk.[31]
- **Neutering** – In cats, dogs and rabbits, neutering is a risk factor for obesity due to a decrease in metabolic rate. This can be managed through careful feeding. [32,33, 34, 35]
- **Health status** – Obesity can also be the result of other diseases, for example,

17German AJ, Ryan VH, German AC, Wood IS, Trayhurn P. Obesity, its associated disorders and the role of inflammatory adipokines in companion animals. Vet J. 2010;185:4-9.
18 German A. J. (2006) The growing problem of obesity in dogs and cats. Journal of Nutrition 136, 1940–1946
19 Kienzle E, Bergler R, Mandernach A. Comparison of the feeding behaviour of the man-animal relationship in owners of normal and obese dogs. J Nutr. 1998;128:2779S–82
20 Kienzle E, Berger R, Ziegler D, Unshelm J. The human-animal relationship and overfeeding in cats [abstract]. Compendium on Continuing Education for the Practicing Veterinarian. 2000;23:73.
21 Stapleton N. The chubby bunny: a closer look at obesity in the pet rabbit. Vet Nurse 2014;5:312–9.
22 Prebble, J. L., Shaw, D. J. and Meredith, A. L. (2015), Bodyweight and body condition score in rabbits on four different feeding regimes. J Small Anim Pract, 56: 207-212. doi:10.1111/jsap.12301
23 German A. J. (2006) The growing problem of obesity in dogs and cats. Journal of Nutrition 136, 1940–1946
24 Allan F. J., Pfeiffer D. U., Jones B. R., Esslemont D. H. & , Wiseman M. S. (2000) A cross-sectional study of risk factors for obesity in cats in New Zealand. Preventive Veterinary Medicine 46, 183–196
25 Stapleton N. The chubby bunny: a closer look at obesity in the pet rabbit. Vet Nurse 2014;5:312–9.
26 David Rendle, Professor Caroline McGregor Argo, Professor Mark Bowen, Harry Carslake, Professor Alex German, Pat Harris, Edd Knowles, Dr Nicola Menzies-Gow, and Ruth Morgan, Equine obesity: Current perspectives, UK-Vet Equine 2018 2:Sup5, 1-19
27 Heath S. Behaviour problems and welfare. In: Rochlitz I. editor. The welfare of cats. Animal welfare, Vol. 3. London: Springer, 2005; p. 91–118.
28 Raffan, E. et al. 2016. A Deletion in the Canine POMC Gene Is Associated with Weight and Appetite in Obesity-Prone Labrador Retriever Dogs DOI:https://doi.org/10.1016/j.cmet.2016.04.012
29 Edney AT, Smith PM. Study of obesity in dogs visiting veterinary practices in the United Kingdom. Vet Rec. 1986;118:391–6.
30 Mason E. Obesity in pet dogs. Vet Rec. 1970;86:612–6.
31 Robin, C. A., Ireland, J. L., Wylie, C. E., Collins, S. N., Verheyen, K. L. and Newton, J. R. (2015), Prevalence of and risk factors for equine obesity in Great Britain. Equine Vet J, 47: 196-201. doi:10.1111/evj.12275
32 Nguyen P. G., Dumon H. J., Siliart B. S., Martin L. J., Sergheraert R. & , Biourge V. C. (2004) Effects of dietary fat and energy on body weight and composition after gonadectomy in cats. American Journal of Veterinary Research 65, 1708–1713
33 Lund E. M., Armstrong P. J., Kirk C. A. & , Klausner J. S. (2006) Prevalence and risk factors for obesity in adult dogs from private US veterinary practices. International Journal of Applied Veterinary Medicine 4, 3–5
34 Bjørnvad, Gloor, Johansen, Sandøe, Lund, 2019. Neutering increases the risk of obesity in male dogs but not in bitches — A cross-sectional study of dog- and owner-related risk factors for obesity in Danish companion dogs. Preventive Veterinary Medicine, Volume 170. https://doi.org/10.1016/j.prevetmed.2019.104730
35 Courcier, EA., Mellor, DJ., Pendlebury, E., Evans, C., Yam, PS.
(2012) Preliminary investigation to establish prevalence and risk factors for being overweight in pet rabbits in Great Britain Veterinary Record 171, 197

hypothyroidism where metabolism decreases, as well as activity levels, potentially leading to obesity, or hyperadrenocorticism where increased cortisol levels can lead to an increase in appetite and weight gain. Obesity can also result in arthritis which has the potential to further decrease activity levels.

- **Owner behaviours** – for example overfeeding, lack of awareness of what diet they should be feeling their pet or what a healthy weight looks like, under-exercising, lack of recognition of obesity in their animal. There is also evidence to suggest that owner obesity and lower income can be an obesity risk factor.[36]
- **Over-rugging**- Many horse owners have the misconception that horses require rugs in the majority of weather conditions. Rugs may be necessary in warm and hot-blooded breeds in poor weather conditions, but most native breeds have evolved to withstand these weather conditions. As the use of rugs limits energy loss, they should be avoided where possible. It is important to recognise that loss of weight during colder winter weather is normal and should be encouraged where horses have gained weight through the summer. [37]

Negative health and welfare impacts of obesity

It is widely recognised that obesity can lead to adverse health and welfare effects in dogs, cats, horses, donkeys and rabbits by increasing the risk of co-morbidities, causing functional impairment, shortening life span, and reducing overall quality of life **(See Annex A for breakdown of adverse health and welfare impacts by species).**

Consequently, we recognise the serious physiological, health and welfare implications of obesity. Obesity should be considered as a legitimate clinical condition and serious health and welfare concern in all animals.

Is obesity a disease?

In terms of defining obesity as a disease, across the medical and veterinary professions there is a lack of consensus regarding the definition of disease itself [38, 39], as well as whether obesity should be formally classified as a disease.[40, 41]

Having considered the breadth of arguments, we recognise that obesity can result from disease and often causes secondary disease processes, however we are concerned that formally classifying obesity as a primary disease may result in unintended consequences in various areas that are crucial to upholding animal health and welfare, including:

- **Abdication of owner responsibility –** Classifying obesity as a disease may result in animal owners abdicating responsibility for their role in preventing and managing obesity. This may lead to reduced owner recognition of obesity as a multifactorial condition with various genetic, physiological, behavioural, and owner-based risk factors[42] that can be proactively addressed.

- **Diagnosis** – We note that in the Veterinary Surgeons Act (1966) 'the diagnosis of diseases in […] animals including tests performed on animals for diagnostic purposes' is considered to be an act of veterinary surgery. We would therefore question whether formally recognising obesity as a disease would impact on the role of Registered Veterinary Nurses (RVNs), who

36 Kienzle E, Bergler R, Mandernach A. Comparison of the feeding behaviour of the man-animal relationship in owners of normal and obese dogs. J Nutr. 1998;128:2779S–82.
37 David Rendle, Professor Caroline McGregor Argo, Professor Mark Bowen, Harry Carslake, Professor Alex German, Pat Harris, Edd Knowles, Dr Nicola Menzies-Gow, and Ruth Morgan, Equine obesity: Current perspectives, UK-Vet Equine 2018 2:Sup5, 1-19
38 Scully, J. 2004. What is a disease? EMBO Rep. 2004 Jul; 5(7): 650–653. doi: 10.1038/sj.embor.7400195
39 The American Medical Association (AMA) definition of disease
40 Howard, R. 2014. Is obesity a disease? Did the AMA get it right? Mo Med. 2014 Mar-Apr; 111(2): 104–108. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6179496/
41 World Obesity Federation
42 Sandøe, P., Palmer, C., Corr, S., Astrup, A., Bjørnvad, CR. (2014) Canine and feline obesity: a One Health perspective *Veterinary Record* **175,** 610-616.

are not permitted to diagnose disease, but currently undertake a large proportion of weight management and prevention interventions for companion animals in clinical practice.

- **Pet insurance premiums and coverage -** Classifying obesity as a disease could result in higher pet insurance premiums or reduced coverage for certain diseases and conditions. Ultimately this could act as a disincentive to pet owners taking out insurance, negatively impacting on animal health and welfare and acting as a barrier to owners seeking veterinary advice to prevent and manage weight issues.

Recommendation 3: Obesity should be considered as a legitimate clinical condition and serious health and welfare concern in all animals.

Prevalence

In the 2017 BVA Voice of the Veterinary Profession Survey and BVNA Voice of the Profession Survey, vets and vet nurses estimated that on average 46% of the dogs, 34% of the cats, and 30% of rabbits they see in their practice each week are overweight or obese.[43]

Almost half of the companion animal vets and vet nurses surveyed (40%) said they felt the proportion of overweight or obese dogs they see in their practice has increased in the last two years, and a similar number felt that it had stayed the same (41%). For cats, over a third of the companion animal vets and vet nurses surveyed (34%) said they felt the proportion of overweight or obese cats they see in their practice has increased in the last two years, and a half (50%) felt that it had stayed the same. For rabbits, a quarter (26%) of vets and vet nurses surveyed said they felt the proportion of overweight or obese rabbits they see in their practice has increased in the last two years, and almost a half (49%) felt that it had stayed the same.

Each year the Pet Food Manufacturers' Association (PFMA) also surveys veterinary professionals at London Vet Show for their thoughts on nutrition and obesity. In November 2018, PFMA surveyed 277 veterinary professionals[44], results indicated that:

- 100% of vets surveyed were concerned about the prevalence of obesity
- 73% of vets surveyed stated it was 'one of the most prevalent conditions seen'.

We note that several studies have been published that estimate the prevalence of canine, feline, equine and lapine obesity in both defined and nationally distributed populations in the UK, based on owner-reporting or veterinary clinical records:

- **Dogs** - studies indicate obesity and being overweight as one of the most common conditions affecting dogs[45] and estimate prevalence of obesity ranging from 6.1%-20.4% based on different sample sizes and geographical populations in the UK. [46, 47, 48]
- **Cats** - a study examining prevalence and risk factors for obesity from a nationally distributed

[43] BVA's Voice of the Profession survey is a bi-annual online survey of vets drawn from BVA members and carried out by the independent research company, Alpha Research (alpharesearch.co.uk). BVA's Voice of the Profession captures the profession's views and experiences by asking questions about animal health and welfare, public health, and trends in the veterinary profession. The panel is broadly representative of BVA membership, which is largely in line with RCVS membership. Responses to questions on pre-purchase and obesity issues were collected from respondents during a survey that ran from 18 October to 27 November 2017. Responses from 888 respondents who are companion animal vets or mixed practice vets who work with companion animals as part of their practice have been included in this report. BVNA's Voice of the Profession survey was carried out online to an open sample of 46 Veterinary Nurses for the obesity survey and 50 for the pre-purchase survey. Fieldwork was carried out between 29th October 2017 and 5th January 2018. Data collected was combined with the BVA's data by Alpha Research.

[44] PFMA research among 277 veterinary professionals at London Vet Show, November 2018

45 https://www.rvc.ac.uk/Media/Default/VetCompass/Infograms/June-2015-Dog%20Prevalence--for-web.pdf

46 Ibid.

47 Summers JF, O'Neill DG, Church D, Collins L, Sargan D, Brodbelt DC. Health-related welfare prioritisation of canine disorders using electronic health records in primary care practice in the UK. BMC Vet Res. 2019;15(1):163. Published 2019 May 22. doi:10.1186/s12917-019-1902-0

48 Courcier, E. A., Thomson, R. M., Mellor, D. J. and Yam, P. S. (2010), An epidemiological study of environmental factors associated with canine obesity. Journal of Small Animal Practice, 51: 362-367. doi:10.1111/j.1748-5827.2010.00933.x

population of cats and reported an overall obesity prevalence of 11.5%. [49]

- **Horses –** rates of obesity in UK horses are likely to be between 30-50% and may be as high as 70% in native pony breeds.[50]
- **Rabbits –** a preliminary investigation to establish prevalence and risk factors for being overweight in pet rabbits concluded that the prevalence of being overweight or obese in rabbits does not appear to be as great as for other companion animals. [51]

However, we recognise the variability and potential biases of using owner-reported data, clinical records and geographically restricted data sets in terms of estimating the prevalence of feline, canine, equine and lapine obesity at a national level, and that these datasets are likely to underestimate prevalence.

Awareness

In 2018, the Pet Food Manufacturers' Association (PFMA) commissioned research among 8000 households and spoke to pet owners about their awareness of pet obesity. They found that:

- 67% of owners admitted that they were not concerned about pet obesity;
- 68% owners thought that their pet was exactly the right size; and
- 57% of those surveyed had not discussed the weight of their pet with their vet.[52]

In our 2017 BVA Voice of the Veterinary Profession Survey, we asked vets and vet nurses to identify the most common for reasons for excess weight in dogs, cats and rabbits. Interestingly, the most common reason vets and vet nurses surveyed identified was 'Owner's lack of recognition that their pet is overweight' – with 55% of vets and vet nurses identifying it as the most common reason for excess weight in dogs, 68% of vets and vet nurses identifying it as the most common reason for cats, and 49% of vets and vet nurses identifying it as the most common reason for rabbits .

It is therefore paramount that owners are familiar with the risk factors of obesity and do not normalise unhealthy weight and body conditions in pets.

Stakeholders should work together to encourage pet owners to understand the importance of recognising and maintaining a healthy weight and body condition, and to actively discuss appropriate ways to manage risk factors for obesity with their veterinary surgeon or vet nurse. As part of this, pet owners should be encouraged to monitor their pets' weight and body condition regularly to prevent weight gain and allow for early intervention if their pet becomes overweight.

We recognise that there are a number of organisations in the pet food and nutrition industry as well as animal welfare organisations, who have already developed useful resources to support pet owners to be proactive in preventing and managing obesity (eg. the PFMA Healthy Weight Management Hub and Pet Size-O-Meters, as well as individual educational materials from other organisations).

We support the continued promotion of these resources, as well as the further development of owner-facing information and resources through coalition working eg. pet food and nutrition industry, veterinary associations and animal welfare organisations working together to produce authoritative owner-facing materials that are unified in their messaging.

In horses and ponies, obesity has become so common that it has become the norm.[53] There needs to

49 E.A., Mellor, D.J. , Pendlebury, E., Evans, C. and Yam, P.S. (2012) An investigation into the epidemiology of feline obesity in Great Britain: results of a cross-sectional study of 47 companion animal practises. Veterinary Record, 171(22), p. 560. (doi:10.1136/vr.100953)
50 D. Rendle et al, 2018. Equine obesity: current perspectives. 2:Sup5, 1-19 UK-Vet Equine 2018 2:Sup5, 1-19 https://doi.org/10.12968/ukve.2018.2.S2.3
51 Courcier, EA., Mellor, DJ., Pendlebury, E., Evans, C., Yam, PS.
(2012) Preliminary investigation to establish prevalence and risk factors for being overweight in pet rabbits in Great Britain Veterinary Record 171, 197.
52 PFMA 2019. Pet Obesity Ten Years On 2009-2019. Available at:
https://www.pfma.org.uk/_assets/docs/White%20Papers/PFMA-Obesity-Report-2019.pdf
53 Owers R, Chubbock S. Fight the fat! Equine Vet J. 2012; 45:5

be a significant change across much of the equestrian community about what is a healthy weight for a horse. Organisations who educate the next generation of animal owners, such as The Pony Club, have a particularly important role to play.

Recommendation 4: Stakeholders across the pet and horse food industries, veterinary associations and animal welfare organisations should work together to encourage animal owners to understand the importance of animals maintaining a healthy weight, and to actively discuss appropriate ways to manage risk factors for obesity with their veterinary surgeon or vet nurse.

Recommendation 5: Animal owners should be encouraged to monitor their animals' weight and body condition regularly to prevent obesity and allow for early intervention if they become overweight.

The role of the veterinary professions in weight management and the prevention of obesity.

Prevention

The veterinary professions have a key role to play in the prevention of obesity at an individual, practice and association level. This can be achieved through:

Action at an individual level:

- Vets and vet nurses should use body condition scoring alongside routine monitoring of body weight to prevent and identify the development of obesity.
- Vets and vet nurses should monitor body condition score, and body weight measurements during a puppy[54], or kitten's growth phase, to enable weight management and the education of owners about healthy weights and feeding practices,
- Vets and vet nurses should check the body condition score and, body weight of animals at least once a year, but more frequently if feasible, with details recorded in the clinical records and discussed with owners at each health check. Routine visits for vaccination and preventive healthcare can provide significant opportunities to identify those animals that are obese. More frequent monitoring of body condition score and body weight is strongly advised in animals that are obese or are at risk of obesity (eg. predisposed breeds, neutered animals, those with other diseases that can act as a risk factor for obesity).
- Vets and vet nurses should regularly explain to owners the health and welfare benefits of maintaining a healthy body condition and emphasise the importance of safe and effective feeding strategies[55,56 57, 58], dietary enrichment, and physical activity. It is paramount that

54 https://www.waltham.com/resources/waltham-growth-charts/

55 The WSAVA set out average calorie needs for dogs and cats with health body condition scores as part of their Global Nutritional Guidelines.

56 Alongside PDSA, BSAVA, BVZS, BVNA, RWAF, RSPCA and Wood Green, we recommend the following diet for adult rabbits:
At least their own body size in good quality hay each day (so if you put the daily amount of hay next to your rabbits, it should be at least as big as them). As a rule, either fresh hay or growing grass (not grass clippings) should always be available.
An adult-sized handful of suitable fresh greens morning and evening
Just a tablespoon of rabbit nuggets once daily (or twice daily if the rabbits weigh over 3.5kg).
Don't feed a muesli style diet.
Read the PDSA feeding rabbits guide in full, co-badged by BSAVA, BVZS, BVNA, RWAF, RSPCA and Wood Green.

58 For horses, as set out in The rise in equine obesity and Equine obesity: Current perspectives, limiting access to grazing can be helpful along with reducing hay intake and soaking it to reduce calorie intake whilst maintaining fibre intake. Smaller hay nets, bowls and scoops and weigh feed to ensure intake is accurate is also effective.

communication around body condition is done in a neutral and supportive manner to avoid stigma and ensure that veterinary care and advice continues to be sought.

Action at veterinary practice level:

- Small animal veterinary practices should encourage clients to regularly visit their vet or vet nurse to weigh their pets and discuss the importance of a healthy body condition and weight.
- Veterinary practices should ensure practice policies support staff to appropriately convey evidence-based information and advice about obesity to clients in a timely and supportive manner.
- Veterinary practices should ensure that employees are familiar and confident with using body scoring scales consistently for the species they treat.
- Veterinary practices should ensure that their marketing materials depict animals with mid-range body conditions, a suitable diet, and a suitable environment to meet their physical needs. (See BVA *Pets in advertising: A social concern*, good practice guidance for use of pet animals in advertising for more information).

Action at a veterinary association level:

Veterinary associations should continue to work together to:

- Educate, influence, and collaborate with all organisations and stakeholders within the animal sector. This particularly includes breed societies and clubs across species;
- Support and harness the influence of the veterinary professions to raise client awareness of the health and welfare implications of obesity, risk factors, and the importance of discussing diet, exercise and weight management with a veterinary surgeon or vet nurse.;
- Promote the use of body condition scoring of animals amongst vets, vet nurses and animal owners.**;** and
- Develop 'tool kits' with resources and information to support their members to prevent, manage and communicate with clients about the importance of healthy, mid-range, body conditions. For example, BEVA's Obesity in horses: Resources and guidance related to tackling obesity.

Recommendation 6: Vets and vet nurses should use body condition scoring alongside routine monitoring of body weight to prevent and identify the development of obesity.

Recommendation 7: Vets and vet nurses should monitor body condition score and body weight during a puppy or kitten's growth phase to enable weight management and the education of owners about identifying health body condition scores, healthy weights and feeding practices.

Recommendation 8: Vets and vet nurses should check the body condition score and/or body weight of animals at least once a year, but more frequently if feasible, with details recorded in the clinical records and discuss with owners at each health check. Routine visits for vaccination and preventative healthcare can provide significant opportunities of identifying those animals that are obese. More frequent monitoring of body condition score and body weight is strongly advised in animals that are obese or are at risk of obesity.

Recommendation 9: Vets and vet nurses should regularly explain to owners the health and welfare benefits of maintaining a healthy, mid-range, body condition and emphasise the

In addition, feeding little and often and using measures to slow feed intake such as multiple hay nets and small weave nets can be effective.

importance of safe and effective feeding strategies [59,60 61, 62], dietary enrichment and physical activity. It is paramount that communication around body condition is done in a neutral and supportive manner to avoid stigma and ensure that veterinary care and advice continues to be sought.

Recommendation 10: Small animal veterinary practices should encourage clients to regularly visit their vet or vet nurse to weigh their pets and discuss the importance of a healthy body condition and weight.

Recommendation 11: Veterinary practices should ensure practice policies support staff to appropriately convey evidence-based information and advice about obesity to clients in a timely and supportive manner.

Recommendation 12: Veterinary practices should ensure that employees are familiar and confident with using body condition scoring consistently for the species they treat.

Recommendation 13: Veterinary practices should ensure that their marketing materials depict animals with mid-range body conditions, a suitable diet, and a suitable environment to meet their physical needs.

Recommendation 14: Veterinary associations should work together to educate and influence all organisations and stakeholders within the animal sector. This particularly includes breed societies and clubs across species.

Recommendation 15: Veterinary associations should continue to work together to support and harness the influence of the veterinary professions to raise client awareness of the health and welfare implications of obesity, risk factors, and the importance of discussing diet, exercise and weight management with a veterinary surgeon or vet nurse.

Recommendation 16: Veterinary associations should promote the use of body condition scoring of animals amongst vets, vet nurses and animal owners.

Recommendation 17: Veterinary associations should develop 'tool kits' with resources and information to support their members to prevent, manage and communicate with clients about the importance of healthy, mid-range, body conditions.

Management

To manage obesity, veterinary surgeons and vet nurses should undertake sustainable weight management programmes with their patients and emphasise the importance of healthy body condition to owners. Weight management programmes should be tailored to the individual animal in question and take into account any pre-existing health conditions, as well as owner lifestyle.

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[59] The WSAVA set out average calorie needs for dogs and cats with health body condition scores as part of their Global Nutritional Guidelines.

[60] Alongside PDSA, BSAVA, BVZS, BVNA, RWAF, RSPCA and Wood Green, we recommend the following diet for adult rabbits:
At least their own body size in good quality hay each day (so if you put the daily amount of hay next to your rabbits, it should be at least as big as them). As a rule, either fresh hay or growing grass (not grass clippings) should always be available.
An adult-sized handful of suitable fresh greens morning and evening
Just a tablespoon of rabbit nuggets once daily (or twice daily if the rabbits weigh over 3.5kg).
Don't feed a muesli style diet.
Read the PDSA feeding rabbits guide in full, co-badged by BSAVA, BVZS, BVNA, RWAF, RSPCA and Wood Green.

[62] For horses, as set out in The rise in equine obesity and Equine obesity: Current perspectives, limiting access to grazing can be helpful along with reducing hay intake and soaking it to reduce calorie intake whilst maintaining fibre intake. Smaller hay nets, bowls and scoops and weigh feed to ensure intake is accurate is also effective.
In addition, feeding little and often and using measures to slow feed intake such as multiple hay nets and small weave nets can be effective.

Energy intake must decrease and/or physical activity must increase for the animal to lose weight. However, it is important to emphasise that weight management must be undertaken gradually, in a way that ensures that the nutritional needs of the individual animal are met.

Food choices for weight management should be decided in consultation with a veterinary surgeon or vet nurse, choice will depend on the individual health and welfare needs of the animal in question, as well as client preference. The honest recording of all food intake, including treats, should be encouraged.

Dietary enrichment strategies, using tools or toys to mentally stimulate animals and encourage them to express their natural feeding behaviours eg foraging, hunting or grazing behaviour, should also be encouraged and discussed with a veterinary surgeon or vet nurse.

In terms of physical activity, levels of activity should be increased gradually. Choice of physical activity, as well as the frequency and duration required to achieve weight loss should always be decided and monitored in consultation with a veterinary surgeon or vet nurse. As with food choice, exercise strategies will depend on the individual health and welfare needs of the animal in question, as well as client preference.

Recommendation 18: Sustainable weight management programmes should be undertaken under the guidance of a veterinary surgeon or vet nurse. Weight management programmes should be tailored to the individual animal in question and consider any pre-existing health conditions. The honest recording of all food intake, including treats, should be encouraged.

Recommendation 19: Weight management must be undertaken gradually, in a way that ensures that the nutritional needs of the individual animal are met.

Recommendation 20: Food choices for weight management should be decided in consultation with a veterinary surgeon or vet nurse, the choice will depend on the individual health and welfare needs of the animal in question, as well as client preference.

Recommendation 21: In pet animals, dietary enrichment strategies, using tools or toys to mentally stimulate animals and encourage them to express their natural feeding behaviours eg foraging, hunting or grazing behaviour, should be encouraged and discussed with a veterinary surgeon or vet nurse.

Recommendation 22: Choice of physical activity, as well as the frequency and duration required to achieve weight loss, should be decided and monitored in consultation with a veterinary surgeon or vet nurse.

Harnessing the influence of the show ring

We recognise that there are different populations of pet animals and horses in the UK:

Horses

Many horse owners take part in some form of showing. Showing has a strong influence on owners' perceptions of what is an appropriate and healthy weight for horses, and most shows are distorting that perception by celebrating and rewarding obesity. Perceptions of the ideal weight for animals participating in showing classes is perceived to be significantly greater than for other equestrian disciplines.[63] Radical change needs to be implemented to ensure that obese horses are not successful in the show ring.

Pet animals

- Pedigree dogs, cats and rabbits that are bred by breeders to breed standards and may be shown in the ring, or sold as pets;

[63] Morrison PK, Harris PA, Maltin CA, Grove-White D, Barfoot CF, Argo CM. Perceptions of obesity and management practices in a UK population of leisure-horse owners and managers. J Equine Vet Sci. 2017a; 53:19–29

- Dogs, cats, and rabbits that are bred to be sold as pets by breeders who are part of a breeder assurance scheme eg. the Kennel Club Assured Breeder Scheme (ABS); and
- Dogs, cats, and rabbits bred to be sold as pets, either purebred or cross-bred, that have no affiliation with the Kennel Club, the Governing Council of the Cat Fancy, the British Rabbit Council breed society or breeder assurance scheme.

There are important interrelationships between these populations that should be harnessed to promote healthy body conditions amongst dogs, cats and rabbits. For example, by setting healthier standards and rewarding healthy examples of body conditions in the show population, the show sector has the potential to drive demand for, and awareness of, healthier body conditions amongst the pet-buying public, and incentivise breeders to emulate these examples.

The position of influence of the show population should therefore be harnessed to reduce levels of obesity across all populations of dogs, cats, horses and rabbits.

This can be achieved through:

- Ensuring that breed standards, both in their wording and images, do not promote the selection of animals with unhealthy weight and body conditions or animals with risk factors linked to obesity;
- Training show judges to body condition score as part of their respective competency frameworks; and
- Ensuring that show judges only place dogs, cats, horses, donkeys and rabbits that have a healthy body condition score

Recommendation 23: Breed standards should ensure that wording and images do not promote the selection of animals with overweight or obese body condition scores or animals with risk factors linked to obesity.

Recommendation 24: Show judges should be trained to body condition score as part of their respective competency frameworks.

Recommendation 25: Show judges should only place dogs, cats, horses, donkeys and rabbits that have a healthy body condition score.

Responsible marketing and advertising

When featuring animals in advertising and marketing materials, the Advertising Standards Authority sets out that:

"Depicting anything that is potentially harmful and could feasibly result in emulation is likely to be considered problematic. Marketers should, therefore, take care when considering such approaches and ensure the content isn't likely to result in harmful emulation…"

Irresponsible messaging about the body condition, and required dietary and physical needs of animals, can therefore lead to harmful emulation and compound misconception about the seriousness of obesity, with pet owners providing their pets with unbalanced diets, insufficient physical activity.

The power and reach of advertising should therefore be harnessed by marketing professionals to promote positive animal health and welfare, including promoting healthy body conditions, as well as appropriate dietary and physical behaviours.

BVA has developed *Pets in advertising: A social concern*, good practice guidance for use of pet animals in advertising to support marketing professionals in their decision-making on this issue. In the document, we set out that to protect animals and equip pet owners with information that enables responsible ownership, all promotional images using pets should, where possible, reflect and meet the five welfare needs for animals as set out in the UK Animal Welfare Acts. This includes the need for a suitable diet, a suitable environment to meet the physical needs of animals and ensuring that animals are depicted as free from pain, suffering, injury and disease that may result from obesity.

Depicting a suitable diet

In terms of diet, we advise that pets used in advertising should be shown to be eating proportionate amounts of a nutritionally balanced diet and/or around appropriate food for their species. Specific recommendations include:

- The amount of food that animals are shown to be eating in advertising and marketing imagery should be proportionate to their size, dietary needs and lifestage. In practice, this means not showing food bowls full to the brim, overfull or overflowing.
- Advertisements using animals to promote commercial treats should also ensure that pets are depicted as consuming these treats in moderation, in the wider context of a balanced, nutritional diet.
- Images should avoid depicting animals eating food made for human consumption
- Rabbits should be shown with fibre-based food types, including grass, hay and leafy greens, as opposed to carrots and 'muesli-style' dry food that can be high in sugar. 'Muesli-style' dry food can also lead to selective eating by rabbits, whereby they select individual components and leave the rest. This can lead to an underbalanced diet, dental issues and obesity.

Depicting a suitable environment

When depicting a suitable environment, to ensure physical health and mental wellbeing, all pets must have enough indoor and, where relevant, outdoor space for them to move around and exercise freely, exhibit species specific behaviours, socialise appropriately and safely with other animals and avoid injury from housing or fencing materials. Specific recommendations include:

- Dogs should be shown in environments suited to their breed, size and activity level. For example, large breeds require larger living space and very active breeds should be shown with clear access to open spaces.
- Rabbits should be shown to be living in large, sheltered hutches and runs with space to run, jump, graze, dig, rest and stand up on their hind legs without their ears touching the roof. As rabbits are social animals amongst their own species, they should be shown in groups, with room to sit or sleep with other rabbits and space to be apart if desired. Hutches should appear to be secure from predators and have good quality, deep bedding like straw or hay.

Depicting animals as free from as free from pain, suffering, injury and disease

Imagery in marketing should avoid depicting animals that are at risk of pain, suffering, injury and disease. As highlighted above, the negative health and welfare impacts of obesity are well documented. We therefore strongly recommend that marketing professionals avoid the use of overweight or obese animals in marketing materials to avoid the normalisation of unhealthy, low or high scoring, body condition in dogs, cats and horses.

To ensure the depiction of healthy body images, marketing professionals and vets should consult body condition score charts and resources, which will provide visual guides to support their decision-making.

If marketing professionals are unsure about how to depict healthy, mid-range, body conditions or dietary and physical needs of an animal responsibly, they should consult a veterinary professional for advice.

Recommendation 26: The amount of food that animals are shown to be eating in advertising and marketing imagery should be proportionate to their size, dietary needs and lifestage. In practice, this means not showing food bowls full to the brim, overfull or overflowing.

Recommendation 27: Advertisements using animals to promote commercial treats should also ensure that animals are depicted as consuming these treats in moderation, in the wider context of a balanced, nutritional diet and it should be made clear that these should be consumed in addition to, not in place of, an animal's daily food allowance.

Recommendation 28: Advertisements using animals should ensure that they depict enough indoor and, where relevant, outdoor space for them to move around and exercise freely, as well as exhibit species specific behaviours.

Recommendation 29: Advertisements should avoid the use of overweight or obese animals in their marketing to avoid the normalisation of unhealthy body conditions in dogs, cats and horses.

Recommendation 30: To ensure the depiction of healthy body images, marketing professionals and vets should consult body condition score charts and resources, which will provide visual guides to support their decision-making.

Annex A – Health and welfare impacts of obesity across species

It is widely recognised that obesity can lead to adverse health and welfare effects in dogs, cats, horses, donkeys and rabbits.

Dogs and cats

In dogs and cats the following types diseases are reported to be associated with obesity[64]:

- Endocrine and metabolic diseases
- Insulin resistance, diabetes mellitus and the metabolic syndrome
- Hypothyroidism and thyroid function
- Hyperlipidemia and dyslipidemia.
- Orthopedic disorders.
- Cardiorespiratory disease and hypertension.
- Urinary tract and reproductive disorders.
- Neoplasia

Evidence also indicates that they will experience a poorer quality of life. [65,66] Figure 1 sets out in more detail diseases and conditions reported to be commonly associated with obesity in dogs and cats.

Figure 1: Diseases and conditions reported to be commonly associated with obesity in dogs and cats (Reproduced from Alexander J. German, The Growing Problem of Obesity in Dogs and Cats, The Journal of Nutrition)

<table>
<tr>
<td>Metabolic abnormalities
Hyperlipidemia/dyslipidemia
Insulin resistance
Glucose intolerance
Metabolic syndrome
Hepatic lipidosis (cat)</td>
<td>Endocrinopathies
Hyperadrenocorticism
Hypothyroidism
Diabetes mellitus
Insulinoma
Hypopituitarism
Hypothalamic lesions</td>
<td>Orthopedic disorders
Osteoarthritis
Humeral condylar fractures
Cranial cruciate ligament rupture Intervertebral disk disease</td>
</tr>
<tr>
<td>Cardiorespiratory disease
Tracheal collapse
Brachycephalic airway obstruction syndrome
Laryngeal paralysis</td>
<td>Urogenital system
Urethral sphincter mechanism incompetence
Urolithiasis (calcium oxalate)
Transitional cell carcinoma
Dystocia</td>
<td>Neoplasia
Mammary
Transitional cell carcinoma</td>
</tr>
<tr>
<td colspan="3">Functional alterations
Joint disorders
Respiratory compromise, eg dyspnea
Hypertension
Dystocia
Exercise intolerance
Heat intolerance/heat stroke
Decreased immune functions
Increased anaesthetic risk
Decreased lifespan</td>
</tr>
</table>

[64] German A. J. (2006) The growing problem of obesity in dogs and cats. Journal of Nutrition 136, 1940–1946
[65] German AJ et al. Vet J 2012; 192: 428-434
[66] Yam PS, et al. Prev Vet Med 2016; 127: 64-69

Horses

Obesity in horses is particularly concerning because of its association with laminitis. Laminitis is a serious, debilitating condition of the feet of horses and ponies and although it has a complex aetiology it is strongly associated with obesity. Laminitis significantly compromises the welfare of affected horses by causing pain and immobility which can develop to be long-standing, irreversible and may lead to euthanasia.[67] In 2016 it was reported that laminitis accounted for 20.7% of all lameness cases with 42% of these cases being first episodes and 58% of them being repeat episodes.[68]

As outlined in Equine obesity: Current perspectives, obesity has been demonstrated to have a number of adverse effects on equine health and welfare, including:

- There is a strong link with equine metabolic syndrome (EMS);
- Increased risk of laminitis[69] ;
- Poorer prognosis for recovery from laminitis[70];
- Increased risk of hyperlipaemia[71];
- Impairment of normal thermoregulation[72];
- Altered oestrous cycles and decreased fertility[73];
- Increased pro-inflammatory cytokine production characteristic of inflammaging[74];
- Greater risk of osteochondrosis dissecans in foals born to obese mare[75];
- Undesirable behavioural traits[76];
- Increased blood pressure[77] .

It also may be associated with:

- Increased risk of orthopaedic disease through increased loading;
- Preputial and mammary oedema and dermatitis;
- Ventral oedema possibly as a consequence of compromised lymphatic drainage;
- Strangulating small intestinal lesions caused by pedunculated mesenteric lipomas;
- Greater susceptibility to hypertriglyceridaemia and hyperglycaemia when faced with other critical illness;
- Inappropriate lactation possibly via effects on thermoregulation and prolactin production;

[67] Welsh, C.E., Duz, M., Parkin, T.D. and Marshall, J.F., 2017. Disease and pharmacologic risk factors for first and subsequent episodes of equine laminitis: A cohort study of free-text electronic medical records. Preventive Veterinary Medicine, 136, pp.11-18.
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- Subfertility in mares and stallions;
- Reduced growth rates in foals caused by excessive mammary adiposity and reduced milk production, and/or exaggerated compensatory growth rates once weaned;
- Respiratory compromise.[78] Relative to total body mass the mass of the respiratory tract may decrease as much as 15%[79];
- Pharyngeal collapse;
- Poor performance.[80]

Rabbits

In rabbits, the following diseases and conditions are reported to be associated with obesity[81]:

- Cessation of caecotrophy (leading to vitamin imbalances)
- Urine scalding
- Pododermatitis
- Fly strike
- Diarrhoea
- Gastrointestinal stasis
- Build-up of sediment in the bladder, leading to a range of urinary problems
- Arthritis
- Renal lipomatosis
- Atherosclerosis
- Dental disease
- Anaesthetic risk
- Pregnancy toxaemia
- Hepatic lipidosis
- Hyperthermia

[78] McGregor-Argo C. Appraising the portly pony: Body condition and adiposity. Vet J. 2009; 179:158–60
[79] Dugdale AH, Curtis GC, Harris PA, Argo CM. Assessment of body fat in the pony: Part I. Relationships between the anatomical distribution of adipose tissue, body composition and body condition. Equine Vet J. 2011a; 43:552–61
[80] Kearns CF, Mckeever KH, Kumagai K, Abe T. Fat-free mass is related to one-mile race performance in elite standard-bred horses. Vet J. 2002; 163:260–6
[81] Stapleton N. The chubby bunny: a closer look at obesity in the pet rabbit. Vet Nurse 2014;5:312–9.