Obesity in companion animals – treatment and management


2. Obesity is a complex issue. (2013) *Veterinary record*, 173 (9), pp. 207-208


Accession Number
20133225064
Author
Wilbers, A. M.
Title
What are unique clinical cases and treatment with pet pigs?
Source
Publisher
The North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication
USA

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20133207419
Author
O'Connor, J.
Title
Obesity in companion animals.
Source
Veterinary Ireland Journal; 2013. 3(6):320. 7 ref.
Publisher
Veterinary Ireland
Location of Publisher
Dublin
Country of Publication
Irish Republic

Accession Number
20133207411
Author
German, A. J.
Title
Setting up an obesity clinic.
Source
Veterinary Ireland Journal; 2013. 3(6):300-301.
Publisher
Veterinary Ireland
Location of Publisher
Dublin
Country of Publication
Irish Republic

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20133211941
Nutrigenomics: using gene expression and molecular biology data to understand pet obesity.

Source

Publisher
American Society of Animal Science

Country of Publication
USA

Abstract
Approximately 55% of dogs and 53% of cats in the United States are considered overweight or obese. The domestication of dogs and cats and, more recently, their anthropomorphism, have drastically changed their environment and social behavior. A greater manifestation of chronic diseases is observed with pet obesity (e.g., insulin resistance, type-2 diabetes, musculoskeletal disorders). The advances in "omics" technology may provide new tools to investigate the complexity of obesity and its comorbidities. The field of nutrigenomics focuses specifically on the mechanisms by which nutrients and dietary bioactive molecules affect gene expression. The main objective of this review is to discuss factors involved in the etiology of pet obesity and demonstrate how the field of nutrigenomics has been used to better understand and characterize this disease. Currently, most of the genomics literature available on companion animal obesity has focused on adipose tissue, with fewer studies focused on other tissues (e.g., skeletal muscle, liver). Initial studies focused on the sequence and functionality of a few specific genes, such as leptin and adiponectin, and identified their association with obesity. Subsequent studies focused on gene expression levels across tissues and how they were impacted by BW status or if animals were intact, spayed, or neutered. Dietary interventions to induce obesity, promote BW loss, or alter dietary nutrient profile have also been investigated. Diets including prebiotics, green tea extract, or increased concentrations of protein have been shown to modify the expression of several genes related to glucose and lipid metabolism in adipose [e.g., uncoupling protein-2, carnitine palmitoyltransferase-1, PPAR alpha, lipoprotein lipase (LPL), and glucose transporter 4] and skeletal muscle (e.g., PPAR alpha and LPL) tissues. In general, the outcomes derived from these studies demonstrated that dogs and cats share similar adipokines and hormones to other species, and they are affected in a similar fashion during obesity. They also indicate that gene transcription modifications may preclude clinical signs, which may become a useful tool in the management and prevention of obesity.

An investigation into the epidemiology of feline obesity in Great Britain: results of a cross-sectional study of 47 companion animal practises.

Source
Veterinary Record; 2012. 171(22):560.

Publisher
BMJ Publishing Group

Country of Publication
UK

Abstract
Previous epidemiological studies of feline obesity have been restricted to small geographical areas of Great Britain. This study represents the first published description of the prevalence and risk factors for obesity.
from a nationally distributed population of cats. Data were gathered from 3227 cats through 47 primary companion animal veterinary practises. The overall prevalence of overweight/obesity was 11.5 per cent (95% confidence interval 10.4 per cent to 12.6 per cent) in cats attending the charity's clinics. Cats in Scotland appeared to have a greater age and neutered-adjusted prevalence compared with cats in England. Neutered status, being male and middle age (around 7 years), were all significant risk factors for feline overweight/obesity, although they did not fully explain an individual cat's risk of overweight/obesity. Breed was not found to be a statistically significant risk factor. Partial attributable fractions were calculated from each of the significant risk factors. Neutered status appeared to contribute the most to the prevalence of obesity, followed by prime/mature lifestage (3-10 years of age). Any interpretations of these findings should take into account the multitude of biases inherent in this study. Nevertheless, weight management following neutering appears to be very important to reduce the overall prevalence of overweight/obesity in this population of cats.

<7>
Accession Number
20123361014
Author
Linder, D.
Title
Weighing in on obesity: prevention, treatment and management.
Source
The Veterinary Nurse; 2012. 3(8):502-507. 33 ref.
Publisher
MA Healthcare Limited
Location of Publisher
London
Country of Publication
UK
Abstract
Obesity is a common health problem in companion animals, with almost half of dogs and cats being overweight or obese. Obesity can lead to many diseases and worsen others. Clinically, obesity may increase medical costs to owners and may increase risk of complications from anaesthesia or medication dosing. Treatment of obesity is a multiphase process: first, an initial assessment; second, developing a plan that includes proper diet selection, adequate caloric restriction, and exercise if possible; and finally, intensive follow up and ongoing assessment. Successful weight management can be challenging and requires understanding of the complex relationship between owners and their pets. Client communication is therefore crucial for compliance. Obesity is more easily prevented than treated and the veterinary nurse can play an important role in educating clients about proper body condition at new puppy and kitten visits, and reassessing body condition at yearly wellness visits.

<8>
Accession Number
20123231099
Author
Voglewede, C.
Title
Weight management - how to help your clients make their pets the biggest losers.
Source
Publisher
The North American Veterinary Conference
Location of Publisher
Gainesville
Country of Publication
USA

Dog obesity: can dog caregivers' (owners') feeding and exercise intentions and behaviors be predicted from attitudes?

Dog obesity is a common nutritional disorder affecting up to 40% of the companion animal (pet) dog population in Australia and other developed nations. A clear understanding of factors determining relevant caregiver (owner) behaviors underpins effective treatment for this disorder. The theory of planned behavior can be used to understand factors contributing to human behavior. This article describes research informed by this theory. The research examined relationships between owners' behavioral beliefs and barriers, normative beliefs and perceptions of control, owners' feeding and exercise behaviors toward their dogs, and the body condition scores (BCSs) of dogs. The study recruited a sample of 182 dog and owner dyads. The researcher independently assessed BCSs. Owners completed a questionnaire measuring relevant feeding and exercise beliefs and behaviors. This revealed significant correlations between many psychological variables and BCSs and between psychological variables and specific owner behaviors: for example, the relationship of low levels of intentions to feed appropriately to ambivalent beliefs toward feeding appropriately and low perceived control. Careful consideration of the specific variables identified will permit the development of more effective interventions.

Obesity clinics and management - Part One: How to get started.

Obesity clinics and management - Part One: How to get started.
2011333648

Author
German, A. J.

Title
Obesity and weight management.

Source
Banfield Journal; 2010. 6(3):15-20. 11 ref.

Publisher
Banfield International

Location of Publisher
Portland

Country of Publication
USA

Abstract
This article discusses the weight management in companion animals, calculating target in weight, implementing a weight loss strategy, monitoring the weight loss regimen and maintenance of body weight. The combination of restricted caloric intake and increase energy expenditure as the most successful strategies of weight management are highlighted.

<12>

Accession Number
20113330773

Author
Chandler, M.

Title
Strategies for management of obesity in dogs and cats.

Source

Publisher
Veterinary Business Development Ltd

Location of Publisher
Peterborough

Country of Publication
UK

Abstract
Successful management of pet obesity is challenging and requires commitment from the owner and the veterinary team. If significant weight loss is required a low calorie weight loss diet with added nutrients to prevent deficiencies. Increased protein and possibly increased fibre in the diet also aid loss of fat and retention of lean body mass. A follow up programme for the dietary management of pets in a weight loss programme is usually required for the pet to lose weight and decrease the risk of weight re-gain. As it is easier to prevent obesity than to treat it, owners of young cats and dogs should be counselled about the healthy body condition and weight for their pet.

<13>

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20113272264

Author
Miller, D.

Title
The link between obesity and neutering in companion animals.

Source

Publisher
Banfield International
This article gives an overview of obesity and its association with neutering in dogs and cats. The health risks related to obesity are also presented. Moreover, the importance of appropriate client education and dietary recommendation in preventing weight gain post-neutering is discussed.

Abstract
Obesity and excessive body weight are the most common problems in small animal medicine and are characterized by fat buildup beyond what is required for optimal body working. Its causes, among others, are the overload of carbohydrates and fat providing, neutering and sedentarism, and its negative effects include higher incidence of orthopedic and cardiovascular diseases, diabetes and lower lifespan. One of the major obstacles for the obesity study in company animals is the lack of simple and reliable methods for accurate estimation of the adiposity and obesity diagnostic and also the lack of owner’s complicity in the prevention and treatment of the canine obesity. Loss weight programs in dogs positively affect the biomarkers associated with diseases related to the obesity, such as triglycerides, cholesterol and thyroxin in the blood.
Fresh approaches to managing weight loss in small animals.

This paper discusses the innovative methodologies for addressing the growing problem of obesity in dogs and cats. Focus is given on carnitine supplementation and microsomal triglyceride transfer protein (MTP) inhibitor administration for weight reduction in companion animals. Traditional strategies employed in obesity prevention and control that are based on mitigating risk factors such as neutering, overfeeding and inactivity are presented.

An epidemiological study of environmental factors associated with canine obesity.

Objectives: To assess the relationships between socioeconomic and other environmental factors with canine obesity. Methods: This was a cross-sectional questionnaire study of dog owners attending five primary veterinary practices in the UK. Owners were asked about dog age, neuter status, feeding habits, dog exercise, household income and owner age. The body condition score of the dogs was also assessed. Factors hypothesised to be associated with obesity were investigated. Results: In total, data from 696 questionnaires were evaluated. Out of those data evaluated, 35.3% of dogs (n=246) were classed as an ideal body shape, 38.9% (n=271) were overweight, 20.4% (n=142) were obese and 5.3% (n=37) were underweight. Identified risk factors associated with obesity included owner age, hours of weekly exercise, frequency of snacks/treats and personal income. Clinical Significance: Environmental risk factors associated with canine obesity are multifactorial and include personal income, owner age, frequency of snacks/treats and amount of exercise the dog receives. Awareness about health risks associated with obesity in dogs is significantly less in people in lower income brackets. This phenomenon is recognised in human obesity.

Insulin resistance in dogs.

Objectives: To assess the relationships between socioeconomic and other environmental factors with canine insulin resistance. Methods: This was a cross-sectional questionnaire study of dog owners attending five primary veterinary practices in the UK. Owners were asked about dog age, neuter status, feeding habits, dog exercise, household income and owner age. The body condition score of the dogs was also assessed. Factors hypothesised to be associated with insulin resistance were investigated. Results: In total, data from 696 questionnaires were evaluated. Out of those data evaluated, 35.3% of dogs (n=246) were classed as an ideal body shape, 38.9% (n=271) were overweight, 20.4% (n=142) were obese and 5.3% (n=37) were underweight. Identified risk factors associated with insulin resistance included owner age, hours of weekly exercise, frequency of snacks/treats and personal income. Clinical Significance: Environmental risk factors associated with canine insulin resistance are multifactorial and include personal income, owner age, frequency of snacks/treats and amount of exercise the dog receives. Awareness about health risks associated with insulin resistance in dogs is significantly less in people in lower income brackets. This phenomenon is recognised in human insulin resistance.
In diabetic dogs, many concurrent diseases can cause resistance to exogenous insulin. The most common concurrent disorders in diabetic dogs are hyperadrenocorticism, urinary tract infection, acute pancreatitis, neoplasia, and hypothyroidism. When a concurrent disorder is treated, the insulin dose should be decreased to avoid possible hypoglycemia when an underlying cause of insulin resistance is removed. Hormonal disturbances have been observed in obese dogs, but the clinical significance of these changes is not known.

Obesity is officially defined as a disease in which excessive body fat has accumulated to such an extent that the health of an animal may be adversely affected. In the past, many veterinary surgeons have not considered obesity as a serious concern, instead believing it to be a cosmetic issue. However, it is now recognised to be an important medical disease, as it may predispose patients to a variety of other disorders, including osteoarthritis, cardiorespiratory problems, diabetes mellitus, constipation, dermatitis, anaesthetic risk and reduced life expectancy. Furthermore, following recent studies showing that approximately 40 per cent of pets are overweight, obesity is now the most common medical disorder of companion animals and a major welfare concern. This article highlights the risk factors associated with obesity in small animals, discusses how the condition can be managed and suggests some strategies for how it might be prevented.