

SUMMARY

ROYAL CANIN Veterinary Diet™/MC feline CALORIE CONTROL CC 38™/MC (dry), CALORIE CONTROL CC™/MC IN GRAVY (pouch), and CALORIE CONTROL CC™/MC IN GEL (canned) are highly palatable, complete diets for adult cats. The diets are formulated to promote weight loss in overweight or obese cats and should be used as part of a weight reduction program in combination with behavioral management and, when possible, an exercise program.

INDICATIONS

- For weight loss in overweight or obese adult cats

CONTRAINDICATIONS

- Growing kittens
- Pregnant or lactating queens

NUTRITIONAL DIFFERENCES

(as compared to typical commercial pet foods)

- Reduced energy content
- Normal fiber content
- Higher levels of all essential nutrients relative to energy so that when calories are restricted, nutrient delivery is not
- Enriched with antioxidants
- High palatability and digestibility

RATIONALE

Obesity is considered to be the most common form of malnutrition encountered in small animal practice. Indeed, studies have suggested that as many as 40% of cats seen in practice are either overweight or obese. Obesity is the result of energy intake in excess of requirements.

Quantification of Obesity

Until recently, the easiest means of assessing obesity in cats was with visual observation and physical palpation (body condition scoring). Waltham has developed a new method of estimating the percent body fat by taking two physical measurements. Both measurements should be obtained with the cat in a standing position, the legs perpendicular to the ground, and the head in an upright position.

1. The ribcage i.e., the circumference measured (in cm) at the point of the 9th cranial rib.
2. The leg index measurement (LIM) is the distance (in cm) between the patella (knee) and the calcaneal tuber (hock) of one posterior limb.



*Dry name only. Wet name excludes number.

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The percent body fat can then be calculated from the following equation:

$$\% \text{ Body Fat} = \left(\frac{\text{RIBCAGE} - \text{LIM}}{0.7067} \right) \frac{0.9156}{0.9156} - \text{LIM}$$

Which can be simplified to % body fat = 1.5 (Ribcage – LIM) – 9.

Cats with more than 30% body fat are considered overweight or obese and are candidates for a veterinary-supervised weight loss program. The dietary management of obesity involves restricting energy intake while still delivering all essential nutrients to the cat.

Dietary Therapy

Since excessive energy intake is the major cause of obesity, dietary therapy focuses on restricting energy consumption. Although starvation (total energy restriction) to reduce weight is a technique that may be employed in some species, it should not be considered an option in the cat because of the link between anorexia and the development of idiopathic hepatic lipidosis. For this and other reasons, the recommended dietary approach is one of controlled moderate energy restriction.

There are two ways of restricting energy delivery to an overweight cat: by feeding less of the cat's regular diet or by feeding a specially designed weight loss diet. Maintenance diets are balanced for normal energy intake. When the intake of a maintenance diet is restricted, the intake of all essential nutrients is also restricted. This approach can lead to deficiencies in protein, vitamins, minerals, and essential fatty acids which could have serious health consequences for the cat.

The appropriate way to restrict energy delivery to an overweight cat is to feed a diet specifically formulated for weight loss. Such diets provide higher levels of all essential nutrients relative to energy so that when calories are restricted, nutrient delivery is not. CALORIE CONTROL CC 38^{TM/MC} (dry), CALORIE CONTROL CC^{TM/MC} IN GRAVY (pouch), and CALORIE CONTROL CC^{TM/MC} IN GEL (canned) have levels of protein, essential fatty acids, vitamins and minerals which are increased relative to calories to avoid nutritional deficiencies during calorie restriction. Clinical studies with these diets show that when fed as directed, weight loss is achieved safely. Weight loss comes predominantly from fat with lean tissue being preserved.

Normal Fiber Content

Many weight loss diets contain elevated levels of dietary fiber. Some claims have been made that dietary fiber is a bulking agent which helps to control hunger. Cats are carnivores, and they have very short digestive tracts. The high levels of fiber in some weight loss diets make these diets inappropriate and unappealing to cats. Overweight cats that refuse to eat are at risk of developing feline hepatic lipidosis. Cats that do eat the high fiber diets are at greater risk of developing feline lower urinary tract disease. High fiber intake means increased stool volume with increased fecal water losses. Due to increased fecal water loss, urine volume is decreased. A reduced urine volume results in a more concentrated urine increasing the risk of urolithiasis. High fiber weight loss diets are not a good choice for cats at risk of hepatic lipidosis or FLUTD. CALORIE CONTROL CC 38^{TM/MC} (dry), CALORIE CONTROL CC^{TM/MC} IN GRAVY (pouch), and CALORIE CONTROL CC^{TM/MC} IN GEL (canned) have normal fiber levels and are clinically proven to achieve healthy weight loss when fed as directed.

Feline Hepatic Lipidosis

Obesity and inappetence are risk factors for feline hepatic lipidosis. Clinical studies were performed to assess liver function and lipoprotein metabolism in cats fed CALORIE CONTROL CC 38^{TM/MC} (dry), and CALORIE CONTROL CC^{TM/MC} IN GEL (canned). At energy restrictions far more stringent than usually recommended for weight loss, no adverse effects were noted in obese cats fed these diets during the 18 weeks of the study. Plasma cholesterol, triglyceride and lipoprotein-cholesterol, lipoprotein lipase and hepatic lipase concentrations were measured. There were no biochemical or clinical parameters indicative of hepatic damage. The excellent palatability of these diets was seen as an important factor ensuring adequate energy and nutrient intake during weight loss.

Steps for a Successful Weight Loss Program

1. Use appropriate diagnostic screening to eliminate other possible causes of obesity such as endocrine disorders.
2. Counsel the owner on the need to reduce weight in order to promote health, longevity and reduce the risk of secondary disorders that may be exacerbated by excessive weight (e.g., diabetes, hepatic lipidosis, FLUTD, joint disease).
3. Weigh the cat and set an initial, realistic target weight representing at least 85% of the initial body weight (i.e., a 15% reduction in body weight) to be achieved in approximately 18 weeks. In general, the target weight should be no more than 15% less than the pet's current weight. If necessary, repeat the program to achieve a normal body weight for the cat's breed and size.
4. Determine the energy required for weight loss by consulting the feeding guides or by using the equation: energy for weight loss (kcal/day) = 30 x (initial body weight in kg).
5. Determine the amount to feed by consulting the feeding guides or by using the kcal required and kcal/cup, kcal/can or kcal/pouch provided in this guide.
6. Define a time frame for this weight loss to occur. Most cats will achieve a 15% weight loss after 130 days (18 weeks) on CALORIE CONTROL CC 38^{TM/MC} (dry), CALORIE CONTROL CC^{TM/MC} IN GRAVY (pouch), or CALORIE CONTROL CC^{TM/MC} IN GEL (canned).
7. Set weekly or bi-weekly appointments for the cat to come into the clinic for weigh-ins (the same time of the day, using the same scale) so that progress can be tracked and positive results reinforced.
8. If there is no loss of body weight after a 2-4 week period, evaluate the patient carefully. Consider reducing the food allowance (on a kcal basis) by another 10% to a minimum allowance of energy for weight loss (kcal/day) = 24 x (initial body weight in kg).
9. Owners are more likely to be motivated to continue the program if the cat's weight is recorded after each weigh-in, and a simple graph of progress is kept up to date.
10. The calorie content of any treats or snacks should be taken into consideration when calculating the food requirements for the cat. Ideally treats, cat snacks, and table scraps should be avoided. If this is not possible, treats should be limited to less than 10% of the daily caloric intake.



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11. The owner should minimize the potential for the cat to get to additional sources of food (e.g., neighbors, garbage, other pet's food).
12. Encourage the owner to exercise the cat. Exercise increases energy expenditure and promotes the preservation of lean tissue mass during weight loss. Physical activity may be encouraged by playing with the cat and using motivational toys to promote activity.

Special Tips

- Synthesizing digestive enzymes requires energy and metabolizing food can represent as much as 10% of a cat's daily energy requirements. Eating several small meals a day uses more energy than eating a single large one helping to expend energy during weight loss.
- For cats that are particularly resistant to weight loss, consider feeding CALORIE CONTROL CC^{TM/MC} IN GRAVY (pouch), or CALORIE CONTROL CC^{TM/MC} IN GEL (canned). Moist diets, with their increased moisture content, are often found to be highly palatable and satisfying for the cat.

GENERAL FEEDING RECOMMENDATIONS

- Daily recommendations may be divided into two to four meals.
- Fresh water should be available at all times.
- Individual requirements may vary depending on breed, age, sex, environment, and activity level.
- Eliminate all other food intake until the desired weight is achieved.

FEEDING GUIDE

FEEDING RECOMMENDATIONS FOR ADULT CATS

Actual Body Weight		Target Body Weight		Suggested Caloric Intake	Daily Feeding		
lb	kg	lb	kg		Can Only (cans per day)	Pouch Only (pouch/day)	Dry Only (8-oz cups per day)
8.1	3.7	7	3.2	114	1	2	1/2
10.4	4.7	9	4.1	147	1 1/2	3	2/3
12.7	5.8	11	5	180	1 3/4	3	3/4
15.0	6.8	13	5.9	212	2	4	1
17.3	7.8	15	6.8	245	2 1/2	4	1
19.6	8.9	17	7.7	278	2 3/4	5	1 1/4

PRODUCT DESCRIPTION

ROYAL CANIN Veterinary Diet™^{TM/NC} feline CALORIE CONTROL CC™^{TM/NC} IN GEL is a highly palatable, low energy density, nutritionally complete food for adult cats during weight reduction. Essential nutrients are included at levels which meet the requirements of a dieting cat.

NUTRITION STATEMENT

CALORIE CONTROL CC™^{TM/NC} IN GEL is intended for intermittent or supplemental feeding as part of a veterinary-supervised weight loss program.



- Low energy (< 950 kcal ME/kg) to reduce caloric intake and promote healthy weight loss.



- All essential nutrients are increased relative to energy to ensure nutrient requirements are met during energy restriction.



- High protein content to ensure maintenance of lean body mass during weight loss.

GUARANTEED ANALYSIS

Crude Protein, (min)	6.5%
Crude Fat, (min)	2.5%
Crude Fiber, (max)	1.0%
Moisture, (max)	87.0%

METABOLIZABLE ENERGY

From Protein	49.1%
From Fat	44.2%
From Carbohydrate	6.7%

Approximately 99 kcal per 5.8 oz (165 g) can (60 kcal per 100 g).

INGREDIENTS

WATER, MEAT BY-PRODUCTS, CHICKEN BY-PRODUCTS, TRACE MINERALS (CALCIUM CARBONATE, SODIUM TRIPOLYPHOSPHATE, CALCIUM SULFATE, POTASSIUM CHLORIDE, FERROUS SULFATE, ZINC SULFATE, MANGANESE SULFATE, COPPER SULFATE, CALCIUM IODATE), CARRAGEENAN, GUAR GUM, CAROB GUM, VEGETABLE OIL, NATURAL FLAVORS, TAURINE, DL-METHIONINE, VITAMINS (CHOLINE CHLORIDE, DL-ALPHA TOCOPHEROL ACETATE [SOURCE OF VITAMIN E], THIAMINE MONONITRATE [VITAMIN B1], BIOTIN, D-CALCIUM PANTOTHENATE, NIACIN, PYRIDOXINE HYDROCHLORIDE [VITAMIN B6], RIBOFLAVIN [VITAMIN B2], VITAMIN D3 SUPPLEMENT, FOLIC ACID).



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TYPICAL ANALYSIS

Nutrient	Unit	Per 100 g as fed	Per 1000 kcal
Moisture	g	83.35	
Protein	g	8.91	148.5
Fat	g	4.06	67.67
Carbohydrate	g	1.58	26.33
Ash	g	2.1	35
Crude Fiber	g	0.4	6.67
Minerals			
Calcium	g	0.29	4.83
Phosphorus	g	0.28	4.67
Sodium	g	0.25	4.17
Chloride	g	0.50	8.33
Potassium	g	0.27	4.50
Magnesium	g	0.018	0.30
Copper	mg	0.28	4.60
Iron	mg	8.50	141.65
Zinc	mg	2.98	49.68
Manganese	mg	0.64	10.58
Iodine	mg	0.068	1.133
Vitamins			
Vitamin A	IU	105	1750
Vitamin D3	IU	20	333
Vitamin E	mg	8.50	141.70
Thiamin (B1)	mg	0.20	3.33
Riboflavin (B2)	mg	0.40	6.67
Niacin	mg	2.46	41.00
Pyridoxine (B6)	mg	0.24	4.00
Pantothenic Acid	mg	1.08	18.00
Folic Acid	mg	0.110	1.833
Cobalamin (B12)	mg	0.0033	0.0550
Biotin	mg	0.04	0.67
Choline	mg	106	1767
Fatty Acids			
Linoleic acid	g	0.58	9.67
Arachidonic acid	g	0.07	1.17
Amino Acids			
Arginine	g	0.50	8.33
Lysine	g	0.54	9.00
Methionine	g	0.22	3.67
Methionine + Cystine	g	0.32	5.34
Taurine	g	0.12	2.00



ORDERING INFORMATION

Case	Weight		Item Code
	oz	g	
24 per case	5.82	165	K60413

PRODUCT DESCRIPTION

ROYAL CANIN Veterinary Diet™^{TM/MC} feline CALORIE CONTROL CC™^{TM/MC} IN GRAVY is a highly palatable, low energy density, nutritionally complete food for adult cats during weight loss. Essential nutrients are included at levels which meet the requirements of a dieting cat.

NUTRITION STATEMENT

CALORIE CONTROL CC™^{TM/MC} IN GRAVY is intended for intermittent or supplemental feeding as part of a veterinary-supervised weight reduction program.



- Low energy (< 950 kcal ME/kg) to reduce caloric intake and promote healthy weight loss.



- All essential nutrients are increased relative to energy to ensure nutrient requirements are met during energy restriction.



- High protein content to ensure maintenance of lean body mass during weight loss.

GUARANTEED ANALYSIS

Crude Protein, (min)	7.0%
Crude Fat, (min)	1.5%
Crude Fiber, (max)	1.0%
Moisture, (max)	87.0%

METABOLIZABLE ENERGY

From Protein	48.2%
From Fat	34.7%
From Carbohydrate	17.0%

Approximately 55 kcal per 3 oz (85 g) pouch (65 kcal per 100 g).

INGREDIENTS

WATER, LIVER, CHICKEN, MEAT BY-PRODUCTS, CORN FLOUR, DRIED EGG PRODUCT, NATURAL FLAVORS, CORN STARCH, CELLULOSE POWDER, GUAR GUM, VEGETABLE OIL, TRACE MINERALS (CALCIUM CARBONATE, POTASSIUM CHLORIDE, DICALCIUM PHOSPHATE, CALCIUM SULFATE, ZINC SULFATE, MANGANOUS SULFATE, POTASSIUM IODIDE), TAURINE, VITAMINS (CHOLINE CHLORIDE, DL-ALPHA TOCOPHEROL ACETATE [SOURCE OF VITAMIN E], THIAMINE MONONITRATE [VITAMIN B1], VITAMIN D3 SUPPLEMENT, FOLIC ACID, BIOTIN, NIACIN, PYRIDOXINE HYDROCHLORIDE [VITAMIN B6], D-CALCIUM PANTOTHENATE, RIBOFLAVIN [VITAMIN B2], VITAMIN B12 SUPPLEMENT), DL-METHIONINE.



FELINE

TYPICAL ANALYSIS

Nutrient	Unit	Per 100 g as fed	Per 1000 kcal
Moisture	g	82.3	
Protein	g	8.5	130.77
Fat	g	3.1	47.69
Carbohydrate	g	3.9	60
Ash	g	1.6	24.62
Crude Fiber	g	0.6	9.23
Minerals			
Calcium	g	0.29	4.46
Phosphorus	g	0.23	3.54
Sodium	g	0.19	2.92
Chloride	g	0.26	4.00
Potassium	g	0.21	3.23
Magnesium	g	0.012	0.18
Copper	mg	0.90	13.85
Iron	mg	4.02	61.85
Zinc	mg	4.56	70.15
Manganese	mg	0.29	4.46
Iodine	mg	0.276	4.246
Vitamins			
Vitamin A	IU	1040	16000
Vitamin D3	IU	34.8	535.4
Vitamin E	mg	6.40	98.50
Thiamin (B1)	mg	1.65	25.38
Riboflavin (B2)	mg	0.53	8.15
Niacin	mg	4.10	63.10
Pyridoxine (B6)	mg	0.52	8.00
Pantothenic Acid	mg	1.50	23.10
Folic Acid	mg	0.727	11.184
Cobalamin (B12)	mg	0.0084	0.1286
Biotin	mg	0.0214	0.3292
Choline	mg	141	2169
Fatty Acids			
Linoleic acid	g	0.38	5.85
Arachidonic acid	g	0.06	0.92
Amino Acids			
Arginine	g	0.42	6.46
Lysine	g	0.50	7.69
Methionine	g	0.15	2.31
Methionine + Cystine	g	0.26	4.00
Taurine	g	0.139	2.138



ORDERING INFORMATION

Pouches	Weight		Item Code
	oz	g	
24 per case	3	85	K60422

PRODUCT DESCRIPTION

ROYAL CANIN Veterinary Diet™^{TMM} feline CALORIE CONTROL CC 38™^{TMM} is a highly palatable, nutritionally complete food for adult cats during weight loss. Essential nutrients are included at levels that meet the requirements of a dieting cat.

NUTRITION STATEMENT

CALORIE CONTROL CC 38™^{TMM} is intended for intermittent or supplemental feeding as part of a veterinary-supervised weight reduction program.



- Calories are controlled to restrict energy intake and promote healthy body weight loss.



- All essential nutrients are increased relative to energy to ensure nutrient requirements are met during energy restriction.



- High protein content to ensure maintenance of lean body mass during weight loss.



- Naturally preserved with mixed tocopherols, rosemary extract, and citric acid.

GUARANTEED ANALYSIS

Crude Protein, (min)	38.5%
Crude Fat, (min)	7.0%
Crude Fiber, (max)	6.7%
Moisture, (max)	8.5%

METABOLIZABLE ENERGY

From Protein	45.8%
From Fat	22.9%
From Carbohydrate	31.2%

Approximately 230 kcal per 8-oz cup; 353 kcal per 100 g; 65g per cup.

INGREDIENTS

CHICKEN MEAL, RICE, CORN GLUTEN MEAL, CELLULOSE POWDER, NATURAL FLAVORS, CHICKEN FAT, POTASSIUM CHLORIDE, DRIED BREWERS YEAST, SODIUM CHLORIDE, CALCIUM SULFATE, CHOLINE CHLORIDE, CALCIUM CARBONATE, MONOSODIUM PHOSPHATE, DL-METHIONINE, GUAR GUM, TAURINE, VITAMINS [DL-ALPHA TOCOPHEROL (SOURCE OF VITAMIN E), NIACIN, BIOTIN, RIBOFLAVIN (VITAMIN B2), D-CALCIUM PANTOTHENATE, PYRIDOXINE HYDROCHLORIDE (VITAMIN B6), THIAMINE MONONITRATE (VITAMIN B1), VITAMIN B12 SUPPLEMENT, VITAMIN A ACETATE, VITAMIN D3 SUPPLEMENT, FOLIC ACID], TRACE MINERALS [ZINC OXIDE, FERROUS SULFATE, COPPER SULFATE, MANGANOUS OXIDE, SODIUM SELENITE, CALCIUM IODATE], PRESERVED WITH NATURAL MIXED TOCOPHEROLS, ROSEMARY EXTRACT, AND CITRIC ACID.



TYPICAL ANALYSIS

Nutrient	Unit	Per 100 g as fed	Per 1000 kcal
Moisture	g	7	
Protein	g	40.5	114.6
Fat	g	9.0	25.5
Carbohydrate	g	27.6	78.1
Ash	g	11.2	31.7
Crude Fiber	g	4.7	13.3
Total Dietary Fiber	g	6.7	19.0
Minerals			
Calcium	g	2.15	6.08
Phosphorus	g	1.25	3.54
Sodium	g	0.70	1.98
Chloride	g	1.40	3.96
Potassium	g	0.95	2.69
Magnesium	g	0.08	0.23
Copper	mg	3.0	8.5
Iron	mg	19.5	55.2
Zinc	mg	21.6	61.1
Manganese	mg	6.0	17.0
Iodine	mg	0.35	0.99
Selenium	mg	0.025	0.071
Vitamins			
Vitamin A	IU	3000	8489
Vitamin D3	IU	140	396
Vitamin E	mg	48	135.82
Thiamin (B1)	mg	1.8	5.1
Riboflavin (B2)	mg	6.1	17.3
Niacin	mg	20.0	56.6
Pyridoxine (B6)	mg	4.7	13.3
Pantothenic Acid	mg	6.7	19.0
Folic Acid	mg	1.3	3.7
Cobalamin (B12)	mg	0.018	0.051
Biotin	mg	0.35	0.99
Choline	mg	400	1132
Fatty Acids			
Linoleic acid	g	2.15	6.1
Arachidonic acid	g	0.02	0.06
Amino Acids			
Arginine	g	2.2	6.2
Lysine	g	1.6	4.5
Methionine	g	1.2	3.4
Methionine + Cystine	g	1.8	5.1
Taurine	g	0.25	0.7

FELINE



ORDERING INFORMATION

Bag Size	Weight		Item Code
	lb	kg	
Small	2	0.91	28002
Medium	5	2.27	28005
Large	16	7.49	28016

REFERENCES

- Nguyen P, Leray V, Dumon H, et al. Protein intake affects body composition but not energy expenditure in cats. Proceedings of the Waltham International Science Symposium, Bangkok, Thailand, October 28-31, 2003, p26.
- Elliott DA. Metabolic and Electrolyte Disorders. In: Nelson RW, Couto G (ed). Small Animal Medicine. 3rd edition. St Louis: Mosby 2003, p816-827.
- Nguyen P, Dumon H, Martin L, et al. Weight loss does not influence energy expenditure or leucine metabolism in obese cats. J Nutr 2002;132:1649s-1651s.
- Martin L, Siliart B, Dumon H, et al. Leptin, body fat content and energy expenditure in intact and gonadectomized adult cats: a preliminary study. J Anim Physiol and Anim Nutr 2001;85:195-199.
- Nguyen P, Martin L, Siliart B, et al. Weight loss in obese cats: evaluation of a high protein diet. Proceedings of the Waltham International Symposium, Pet Nutrition Coming of Age. Vancouver, Canada 2001 August 7-8, p28.
- Martin L, Siliart B, Dumon H, et al. Leptin, body fat content and energy expenditure in intact and gonadectomized adult cats. 4th Conference of the European Society of Veterinary and Comparative Nutrition, Amsterdam (April 2000).
- Nguyen P, Mariot S, Martin L, et al. Effect of age and sexual status on energy expenditure assessed by doubly-labeled water method in adult cats. Purina Symposium 1999, October 21-24, p177.
- Nguyen P, Mariot S, Martin L, et al. Assessment of energy expenditure with doubly-labeled water in adult cats. 9th Annual Congress ESVIM. Perugia 1999, October 14-16, p171.
- Nguyen P, Martin L, Dumon H, et al. Effect of dietary fat on body weight and composition in neutered cats. 9th Annual Congress ESVIM. Perugia 1999, October 14-16, p172.
- Nguyen P, Dumon H, Martin L, et al. Effects of dietary fat and energy on body weight and body composition following gonadectomy in cats. Proceedings of the 17 th ACVIM Forum, Chicago, 1999.
- Butterwick RF, McConnell M, Markwell PJ, et al. Influence of age and sex on plasma lipid and lipoprotein concentrations and associated enzyme activities in cats. Am J Vet Res 2001;62:331-336.
- Harper EF, Stack DM, Watson TDG, et al. Effects of feeding regimens on body weight, composition and condition score in cats following ovariohysterectomy. J Sm Anim Pract 2001;42:433-438.
- Russell K, Sabin R, Holt S, et al. Influence of feeding regimen on body condition in the cat. J Sm Anim Pract 2000;41:12-17.
- Biourge V. Dietary fat and energy affect body weight gain following neutering in cats. WSAVA 2000, April, Amsterdam.
- Center SA, Harte J, Watrous D, et al. The clinical and metabolic effects of rapid weight loss in obese pet cats and the influence of supplemental oral L-carnitine. J Vet Intern Med 2000;14:598-608.
- Hawthorne A, Butterwick RF. Predicting the body composition of cats: development of a zoometric measurement for estimation of percentage body fat in cats. J Vet Intern Med 2000;14:365.
- Biourge V. Stérilisation-Obésité-Besoins énergétiques chez le chat. Proceedings WSAVA-WVA congress Lyon Sept, 1999.
- Earle KE, Kienzle E, Opitz B, et al. Fiber affects digestibility of organic matter and energy in pet foods. J Nutr 1998;128:2798S-2800S.
- Center SA, Reynolds AP, Harte J, et al. Metabolic influence of oral L-carnitine during a rapid 18 week weight loss program in obese pet cats. J Vet Intern Med 1997;11:118.
- Center SA, Reynolds AP, Harte J, et al. Clinical effects of rapid weight loss in obese pet cats with and without supplemental L-carnitine. J Vet Intern Med 1997;11:118.
- Markwell PJ, Butterwick RF. Recent Research in the management of obesity in cats and dogs. Waltham Focus 1997;6(1)25-29.
- Butterwick RF, Markwell PJ. Changes in body composition of cats during weight reduction by controlled dietary energy restriction. Vet Record 1996;138:354-357.
- Watson TDG, Butterwick RF, Markwell PJ. Effects of weight reduction on plasma lipid and lipoprotein metabolism in obese cats. J Vet Intern Med 1995;9:214.
- Butterwick RF, Watson TDG, Markwell PJ. The effect of different levels of energy restriction on body weight and composition in obese cats. J Vet Intern Med 1995;9:214.
- Butterwick RF, Wills JM, Sloth C, et al. A study of obese cats on a calorie controlled weight reduction programme. Vet Record 1994;134:372-377.
- Markwell PJ, Butterwick RF. Body composition changes in cats during weight reduction by controlled energy restriction. J Vet Intern Med 1994;8:156.
- Markwell PJ, Butterwick RF, Wills JM, et al. Clinical studies in the management of obesity in dogs and cats. International Journal Of Obesity 1994;18:S39-S43.
- Markwell PJ, Butterwick RF. Body composition changes in cats during weight reduction by controlled energy restriction. J Vet Intern Med 1994;8:156.

