
Encyclopedia of
**Feline Clinical
Nutrition**

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Pascale Pibot



DVM,
Scientific Publishing
Manager, Royal Canin
Communication
Group

Vincent Biourge



DVM, PhD,
Dipl. ACVN,
Dipl. ECVN
Scientific Director of
Health-Nutrition,
Royal Canin
Research Center

Denise Elliott



BVSc (Hons), PhD,
Dipl. ACVIM,
Dipl. ACVN
Director of Scientific
Affairs,
Royal Canin USA




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Contributors



Vincent Biourge DVM, PhD, Dipl. ACVN, Dipl. ECVCN
Scientific Director of Health-Nutrition,
Royal Canin Research Center (France)



Nicholas Cave BVSc, MVSc, MACVSc, Dipl. ACVN
Senior lecturer in Small Animal Medicine
and Nutrition, Massey University (New Zealand)



Valérie Chetboul DVM, Dipl. ECVIM-CA (cardiology)
Professor of Medical Pathology, Alfort National Veterinary
School (Cardiology unit, UMR INSERM-ENVA) (France)



Fabienne Dethioux MRCVS
Scientific Communication,
International Division of Royal Canin (France)



Denise Elliott BVSc (Hons), PhD, Dipl. ACVIM, Dipl. ACVN
Director of Scientific Affairs, Royal Canin (USA)



Jonathan Elliott MA, Vet MB, PhD,
Cert SAC, Dipl. ECVPT, MRCVS
Professor of Veterinary Clinical Pharmacology,
Royal Veterinary College, London (UK)



Valérie Freiche DVM
Practitioner in a referral practice of Internal Medicine
and Gastroenterology, Bordeaux (France)



Alex German BVSc (Hons), PhD, Cert SAM,
Dipl. ECVIM-CA, MRCVS
Senior Lecturer in Small Animal Medicine
and Clinical Nutrition, Liverpool University (UK)



Nicolas Girard DVM
Practicing veterinary dentist and ear,
nose and throat specialist, La Gaude (France)



Isabelle Goy-Thollot DVM, MSc, PhD
Head of the Critical Care, Anaesthesia and Emergency
Medicine Unit (SIAMU), Lyon National Veterinary
School (France)



Debra Horwitz DVM, Dipl. ACVB
Practitioner in a private referral practice for Behavior
and consultant for the Veterinary Information
Network (VIN) (USA)



Doreen Houston DVM, DVSc, Dipl. ACVIM
Clinical Trial Research Director for Medi-Cal
Royal Canin Veterinary Diets (Canada)



Ariane Junien Eng
Responsible for palatability projects at the Royal Canin
Research Center (France)



Thomas Lutz DVM, PhD
Professor of Applied Veterinary Physiology,
Zurich University (Switzerland)



Lucile Martin DVM, PhD
Senior Lecturer at the Nutrition and Endocrinology Unit,
National Veterinary School of Nantes (France)



Kathryn Michel DVM, Dipl. ACVN
Associate Professor of Nutrition and Chief of the Section
of Medicine, University of Pennsylvania (USA)



Ralf Mueller DVM, PhD, Dipl. ACVD,
FACVSc, Dipl. ECVI
Chief of the Veterinary Dermatology Service, University
of Munich (Germany)



Carolien Rutgers DVM, MS, Dipl. ACVIM,
Dipl. ECVIM-CA, DSAM, MRCVS
Independent consultant. Previous Senior Lecturer,
Royal Veterinary College (UK)



Patricia Schenck DVM, PhD
Professor in the Endocrinology Section of the Diagnostic
Center for Population and Animal Health, Michigan
State University (USA)



Karin Sorenmo DVM, Dipl. ACVIM, Dipl. ECVIM-CA
Associate Professor of Oncology and Chief
of the Oncology Section, University of Pennsylvania (USA)



Eric Servet ^{Meng}
Research Engineer, Royal Canin Research Center (France)



Jürgen Zentek ^{DVM, Prof, Dipl. ECVN}
Professor of Clinical Nutrition, University of Berlin (Germany)



Yannick Soulard ^{Eng}
Head of Nutritional Research Programs, Royal Canin Research Center (France)

We would like to express our sincere thanks to all those whose precious help has enabled the production of this Encyclopedia.

Colette Arpaillange ^{DVM}
Behaviorist and practitioner in Internal Medicine, Veterinary Hospital of the National Veterinary School of Nantes (France)

Robert Backus ^{MS, DVM, PhD, Dipl. ACVN}
Director of the Small Animal Nutrition Program, Department of Veterinary Medicine and Surgery, University of Missouri-Columbia, Missouri (USA)

Thomas Bissot ^{DVM}
Clinical Research Project Manager, Royal Canin Research Center (France)

Dominique Blanchot ^{DVM, MS, Dipl. ACVD, Dipl. ACVB}
Consultant in Gastroenterology and Endoscopy (France)

Alexandre Blavier ^{DVM, MSc}
Scientific Communication, Royal Canin Research Center (France)

Luc Chabanne ^{DVM, PhD, MS of Immunology and Hematology}
Head of the Department of Companion Animals and Manager of the Medicine unit, National Veterinary School of Lyon (France)

Arnaud Christ ^{DVM}
Veterinary Diets Product Manager, Royal Canin (France)

Larry Cowgill ^{DVM, PhD, Dipl. ACVIM}
Professor in the Department of Medicine and Epidemiology, School of Veterinary Medicine, University of California-Davis (USA)

Pauline Devlin ^{BSc (Hons), PhD}
Veterinary Support Manager, Royal Canin (UK)

Marianne Diez ^{DVM, PhD, Dipl. ECVN}
Lecturer, Department of Animal Productions, Faculty of Veterinary Medicine, Liège University (Belgium)

Linda Fleeman ^{BVSc, MACVSc}
Faculty in the School of Veterinary Science, University of Queensland (Australia)

Pauline de Fornel-Thibaud ^{DVM, DESV of Internal Medicine for Companion Animals}
Veterinary Center of Cancerology (Maisons-Alfort, France) and faculty position at the National Veterinary School of Alfort

Marc Gogny ^{DVM, Dipl. ECVPT}
Professor of Physiology and Pharmacology, National Veterinary School of Nantes (France)

Élise Malandain ^{DVM, MSc}
Scientific Support and Training Manager, Royal Canin Research Center (France)

Paul Mandigers ^{DVM, MVM, PhD, Dipl. ECVIM}
Department of Clinical Sciences of Companion Animals, Faculty of Veterinary Medicine, Utrecht University (The Netherlands)

Andrew Moore ^{MSc}
Canadian Veterinary Urolith Center, Analytical Microscopy Laboratory, Guelph University, Ontario (Canada)

James Morris ^{PhD, Dipl. ACVN}
Professor emeritus, University of California-Davis (USA)

Mickaël Münster ^{DVM}
Specialist for Small Animal Internal Medicine and Gastroenterology, Köln (Germany)

Paul Pion ^{DVM, Dipl. ACVIM}
President and co-founder of the Veterinary Information Network (VIN)

Brice Reynolds ^{DVM}
Associate Professor, National Veterinary School of Toulouse, Internal Medicine Unit (France)

Christine Rivierre-Archambeaud ^{DVM, Dipl. ECVD, Dipl. ACVD, MSpVM}
Scientific translator

Kenneth Simpson ^{BVM & S, PhD, MRCVS, Dipl. ACVIM, Dipl. ECVIM-CA}
Assistant Professor of Small Animal Medicine, Cornell University (USA)

Capucine Tournier ^{Eng}
Research and Development Engineer, Royal Canin Research Center (France)

Stéphanie Vidal ^{Eng}
Engineer in the Nutrition Research Team, Royal Canin Research Center (France)

... and of course, the whole team of Diffomédia/Paris for their wonderful job!

Health and nutrition; more closely related than ever before



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Feeding a cat may appear at first glance to be a straightforward exercise. However, this assumption requires some qualification, because cats are strict carnivores with nutritional requirements that differ from those of dogs. In addition, cats generally have very clear dietary preferences that need to be considered. Furthermore, if the cat is ill or has a higher pathological risk, things can sometimes get really complicated.

This Encyclopedia of Feline Clinical Nutrition endeavors to answer the main questions of our time about feline clinical nutrition. The authors were asked first and foremost to summarize the current state of knowledge about cats. When the published data was too succinct, it was sometimes necessary to cite results obtained from other species, while always clarifying where their studies come from and utilizing them in the specific context of feline nutritional characteristics, to avoid incorrect extrapolations.

The following list of questions does not pretend to be an incisive tool to test your knowledge, but you may be interested in how many questions you can answer – without looking at the book.

1. How do you determine the body weight of an obese cat?
2. Which cat breeds are most likely to present dietary sensitivity?
3. What are prebiotics?
4. In the absence of clinical sign of hepatic lipidosis, which blood parameter is used to evaluate hepatic lipid accumulation?
5. What two characteristics should be prioritized in a diet for a diabetic cat?
6. What is the most common cause of hyperlipidemia in cats?
7. Should severe sodium restriction always be recommended in cats with chronic kidney disease?
8. How do you combat both struvite and calcium oxalate stones at the same time?
9. How do you definitively diagnose taurine deficiency?
10. What are the agents active against the development of dental calculus?
11. What are the essential criteria for selecting food for cats with cancer?
12. What is the best feeding route for a cat in intensive care?
13. Why can't cats distinguish sweet taste?
14. What effect is produced by a dramatic increase of omega-3 fatty acids versus omega-6 fatty acids in the diet?

Each of the 14 chapters of the Encyclopedia is filled with information that will enable you to check, correct, refine and perhaps improve your answers.

We hope that during your reading you will find many other subjects of interest and that nutrition will become an even more important aspect of your diagnostic and therapeutic approach.

1. How do you determine the body weight of an obese cat?

- a. It's a simple calculation based on the condition of the body
- b. By bioelectrical impedance analysis
- c. By indirect calorimetry

2. Which cat breeds are most likely to present dietary sensitivity?

- a. The Persian
- b. The Maine Coon
- c. The Siamese and related breeds

3. What are prebiotics?

- a. Non-digestible carbohydrates that are fermented in the gut by bacteria
- b. Microorganisms that have a beneficial effect on the intestinal flora
- c. Sources of non-fermentable fiber

4. In the absence of clinical sign of hepatic lipidosi, which blood parameter is used to evaluate the lipid accumulation level in the liver?

- a. Bilirubin
- b. Cholesterol
- c. Alkaline phosphatase

5. What two characteristics should be prioritized in a diet for a diabetic cat?

- a. High fiber content and low starch content
- b. High protein content and low starch content
- c. Low protein and starch content

6. What is the most common cause of hyperlipidemia in cats?

- a. Primary idiopathic hyperlipidemia
- b. The animal is not fasted before the sample is taken
- c. Diabetes mellitus

7. Should a severe sodium restriction always be recommended in cats with chronic kidney disease?

- a. Yes, it helps prevent hypertension
- b. Yes, it activates the renin-angiotensin-aldosterone system
- c. No, it can activate the renin-angiotensin-aldosterone system

8. How do you combat both struvite and calcium oxalate stones at the same time?

- a. By encouraging diuresis
- b. By acidifying the urine pH
- c. By limiting the dietary consumption of phosphorus

9. How do you definitively diagnose taurine deficiency?

- a. By dosing taurine based on the results of muscle biopsy
- b. By measuring the taurine level in the plasma
- c. By measuring the taurine level in the whole blood

10. What are the agents active against the development of dental calculus?

- a. Polyphosphate salts
- b. Omega-3 fatty acids
- c. B-group vitamins

11. What is the essential criteria for selecting food for cats with cancer?

- a. High glutamine concentration
- b. Palatability
- c. High protein content

12. What is the best feeding route for a cat in intensive care?

- a. The parenteral route
- b. A combination of parenteral and enteral route
- c. The enteral route

13. Why can't cats distinguish sweet taste?

- a. Because cats do not have any salivary amylase
- b. Because the sweet taste receptors are deactivated
- c. Because cats rarely consume sweet food

14. What effect is produced by a dramatic increase of omega-3 fatty acids versus omega-6 fatty acids in the diet?

- a. Immunostimulant effect
- b. Immunosuppressant effect
- c. No effect

1-a, 2-c, 3-a, 4-c, 5-b, 6-b, 7-c, 8-a, 9-c, 10-a, 11-b, 12-c, 13-b, 14-b

How did you do?

- More than 10 correct answers: well done, you're going to enjoy this book
- 7-10 correct answers: not a bad score, but you can do better
- Fewer than 7 correct answers: this book could teach you a lot!

“Let food be thy medicine”

Hippocrates (460-377 BC)



It is a long time since cats moved from being the irregular and unwelcome frequenters of farms and alleyways to pampered companions kept for their beauty, gentleness and mystery. With every day that passes their place in western homes becomes more and more assured. Indeed, the cat population now even outstrips the dog population.

Their relationship to humans has developed remarkably and their behavior has adapted to these contacts: this wild animal has become so well adapted to life indoors that its life expectancy has increased significantly, from an average of four years for outdoor cats to 18 years for those that live indoors. This comfortable life does have a downside: obesity for one is a major and growing threat. Nowadays, cat owners are very concerned about the health of their animal. Vaccination, neutering and tattooing or microchipping are all ways to try to extend its life and as such they have become a very important part of the daily routine of veterinarians.

Cats have been the subject of numerous veterinarian studies and in the field of feline nutrition, for one, great – even crucial – advances have been made over the past fifteen years. The range of dedicated food available today makes it easier to control or prevent many diseases (urolithiasis, food allergies, chronic kidney disease to name but a few). For many years Royal Canin has made it a matter of honor to find effective, targeted solutions to the specific problems affecting cats. This species is actually more of a challenge to care for than dogs. They are more demanding and fully capable of starving themselves to death even when they have access to plenty of food, so they demand very precise responses to make up for an ‘enzymatic toolbox’ that is not really suited to compensating for nutritional deficiencies.

The advancements in knowledge have had a recent but real impact on nutrition courses at veterinary colleges, schools and universities. It is important that clinicians are able to draw on the latest, most complete knowledge on the subject. That is the aim of this encyclopedia, conceived by the Royal Canin research teams, which sets a new standard in feline clinical nutrition.


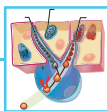





Twenty-three global specialists have contributed to its 14 chapters, 10 of them are based on a collaboration between a clinician and a nutritionist. I am proud to be able to say that seven of those 23 authors are employees of Royal Canin, which is proof of the commitment of everyone at the company to working as hard as possible and using their know-how to benefit both dogs and cats.

I sincerely hope that this book, like its sister publication about dogs, will prove a useful tool for you and your team and facilitate the employment of nutrition in your daily practice.

Jean-Christophe Flatin
President of Royal Canin

A handwritten signature in black ink, appearing to be 'JCF', written over a light blue horizontal line.

Contents

XI		
XIII		
p.3	Obesity	
p.51	Dermatology	
p.77	Digestion	
p.139	Liver/Pancreas	
p.181	Diabetes	
p.223	Hyperlipidemia	
p.249	Kidneys	

Introduction

Foreword

Chapter 1

Feline obesity: epidemiology, pathophysiology and management

Chapter 2

Nutritional dermatoses and the contribution of dietetics in dermatology

Chapter 3

Digestive diseases in cats: the role of nutrition

Chapter 4

Nutritional management of hepatobiliary and pancreatic diseases

Chapter 5

Feline diabetes mellitus: nutritional strategies

Chapter 6

Diagnostic approach to the hyperlipidemic cat and dietary treatment

Chapter 7

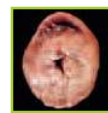
Dietary therapy for feline chronic kidney disease

Chapter 8
Nutritional management of feline lower
urinary tract disorders



FLUTD
p.285

Chapter 9
Acquired cardiovascular diseases in cats:
the influence of nutrition



Heart
p.323

Chapter 10
Nutrition and oral
health in cats



Oral Health
p.357

Chapter 11
Nutritional status of cats with cancer:
nutritional evaluation and recommendations



Cancer
p.385

Chapter 12
Nutrition and critical
care in cats



Critical care
p.405

Chapter 13
The feeding behavior
of the cat



Behavior
p.439

Chapter 14
Nutrition and
immunity



Immunity
p.479

Index

p.510



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