

# Small Animal ECGs

An introductory guide

Second Edition

Mike Martin



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## **Dedication**

*To my family: my wife Mary  
and our three sons, David, Dennis and Sean*

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## An introductory guide

### Second Edition

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## Preface to second edition

This edition has been significantly changed and updated, I hope for the better. It is still aimed at the beginner, be they a veterinary student or graduate, veterinary nurse or technician. It is intended as an introduction, providing a fairly easy book to read and learn about electrocardiography, prior to embarking on the more established textbooks listed in the Further Reading list.

In continuing to lecture widely on ECGs, I found that the sequence in which I taught was different from that in my own book (the 1st edition). So in this 2nd edition, I have re-arranged the sequence to match my lecture course. I hope this works. I believe it should but, importantly, it should make reading and learning about ECGs much easier and more logical. Hopefully, it will help the reader to overcome any psychological fear and apprehension about understanding, interpreting and making good use of ECGs, and spread the use of ECGs more widely.

This edition contains more than fifty new ECG tracings, gradually gathered over the years. It is hoped that these will add greatly to the book, providing illustrations to match the text. There are new chapters on management and treatment of arrhythmias and on choosing an ECG recorder.

The positive feedback to the 1st edition was very gratifying and is always a pleasure to receive. I hope that this new edition has at least an equally good reception: hopefully even better. I wish you all an enjoyable beginning to electrocardiography and a life-long use that will continue to evolve with time and experience.

Mike Martin

## Preface to first edition

The aim of this guide is to provide an introduction to electrocardiography for anyone embarking on this subject. It has been written in such a way (I hope) that it is easy to understand. In part, it has been adapted and developed from frequent lecturing on this topic and feedback by audience interaction. This has resulted in a method of teaching electrocardiography that appears to have succeeded in providing the basis for understanding. Whether this transfers to a book remains to be seen, but I have deliberately used a number of diagrams to illustrate the points being made. Once this book has been read, the reader hopefully will be enthused and enlightened enough to proceed to more advanced ECG textbooks – a further reading list is given at the end. This book should not be used as a reference guide, but simply a stepping stone to such texts.

The book has been written in the expectation that the reader will read it from beginning to end, rather than try to pick out a chapter

to read. I think that anyone who is new to ECGs will find reading it from the beginning the easiest way to grasp the concepts of electrocardiography. In trying to keep this book as an introductory guide, I have (deliberately) not provided a comprehensive list of arrhythmias. In doing so I have had to decide which rhythm disturbances to leave out and which to keep in. This has been a difficult task! On balance I suspect even more rhythm disturbances and abnormalities should have been left out, such as intraventricular conduction disturbances. However, as these are occasionally seen in practice, I have therefore included them, although at the very end of the book!

Having said all that, I hope you, the reader, will find this an enjoyable and easy read, whilst also educational.

Mike Martin