

Foreword

The successful workup of an orthopedic disorder is predicated on a targeted, methodical lameness examination. In conjunction with general and neurological examinations, the orthopedic examination marks the beginning of a process that leads to a diagnosis, or to the development of an expanded diagnostic plan.

Different schools of thought and philosophies naturally give rise to varying strategies. In this book, we seek to teach a systematic approach.

Every lame dog is examined using the same process: history-taking, gait analysis, examination of the dog in the standing position, examination of the dog in recumbency. In each case, all of the limbs are assessed. Diagnostic imaging only comes into play at the end of the orthopedic examination. At first glance, this may seem anachronistic, since x-ray and ultrasound machines are readily available in virtually all veterinary practices, and computed tomography and magnetic resonance tomography have become affordable. Why not simply go ahead and scan a lame dog and see what this reveals?

In addition to the increased burden of exposure to radiation and anaesthesia, several factors highlight the paradox of failing to start with the best tool of all, namely the human brain, with its diverse range of sensors including the eyes, ears and fingers. The brain is faster than any machine, can use logic to arrange information appropriately on an intellectual meta-level, can use experience to distinguish the significant from the non-significant, can evaluate the relevance of aspects of the history and signalment with respect to the existing clinical presentation and, not least, can keep the client informed of diagnostic developments.

Thus, we are also providing instruction in an “art” – the art of the orthopedic examination. This art may not be new, but it deserves renewed attention, because our „sensors“ are only as good as the knowledge that informs them.

This first English edition incorporates the latest findings from innovative locomotion research conducted at the Friedrich Schiller University Jena. In part 1 of the book, these insights provide a deepened functional understanding of the anatomy and physiology of the musculoskeletal system. In light of the close relationship between orthopedic and neurological disorders – in terms of anatomy as well as differential diagnosis – the first English edition provides a guide to both the orthopedic and neurological examinations, accompanied as required by relevant anatomy. While not presuming to serve as a therapeutic text, part 3 summarizes the most important orthopedic and neurological disorders.

Yet this book is not “only” a book; it is also a film. The accompanying URLs and QR codes enable the reader to use their tablet, mobile telephone or computer to view the entire examination process in video format.

Our book is intended for students of veterinary medicine, general practitioners, physiotherapists, osteopaths, chiroprac-

tors and other therapists with an interest in orthopedics, and also for inquisitive laypeople. It aims to create order in the sequence of diagnostic steps, to facilitate the use of observation and underlying anatomical and physiological fundamentals to establish an accurate clinical diagnosis, and to provide an overview of treatment.

Our thanks go in the first instance to Thieme Publishers Stuttgart, particularly to Dr Maren Warhonowicz and Ms Carolin Frotscher, for their capable and inspirational project leadership and realization of the textual, graphic and video content, and to Dr Martin Schäfer, previous Editorial Director of the Veterinary Medicine Program for commissioning this new book and for giving us his trust and support. Corinna Klupiec did an excellent job in translating our book. Her expertise even helped to improve the original German version. Most of the excellent graphics were painstakingly created by Jonas Lauströer and Amir Andikfar, to whom we owe a great debt of thanks. Without their richly informative images, the book would be worth only half as much. We also extend our gratitude to Matthias Haab for producing several of the graphics in part three. Particular thanks are due to Dr Roland Börner, whose initiative as a networker set this project in motion. We also offer sincere thanks to the sponsors, particularly to Heel (Biologische Heilmittel Heel GmbH).

The origins of the text by Daniel Koch go back to lectures by Professor Pierre Montavon at the University of Zurich. Dr Koch is thus especially grateful to his former teacher and intellectual father, who unfortunately passed away in September 2018. Martin S. Fischer thanks the Verband für das Deutsche Hundewesen (VDH), the Gesellschaft für kynologische Forschung (GKF) and Heel (Biologische Heilmittel Heel GmbH) for the many years of outstanding collaboration that have been the foundation of so many locomotion studies.

Then there are the numerous helpers who have consistently provided support, advice and editorial input. These include: photo- and film-star dog Leika and her owner Katharina Gasser, photo- and film-star dog Joyce and her owner Nicole Hollenstein, our proofreaders Dr Stefan Grundmann, Prof. Frank Steffen, Adjunct Professor Dr Manuela Schmidt, Dr Emanuel Andrada, Dr Barbara Happe and particularly Dr Christian Rode, whose many critically analytical comments helped to refine part one of the book. In addition, we thank the camera crew and editors at TeleD and Nicole Hollenstein Animal Photographer, the video actors, Indulab for supplying the examination table, colleagues who provided us with images and, finally, our families and wives, for granting us the freedom we needed while writing this book.

January 2019

Daniel Koch and Martin S. Fischer