

MILLER'S

GUIDE TO THE DISSECTION OF THE DOG

THIRD EDITION



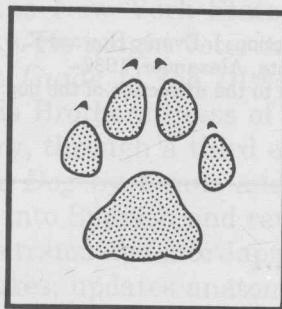
EVANS & de LAHUNTA

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GUIDE TO THE DISSECTION OF THE DOG

THIRD EDITION



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PREFACE

Dr. Malcolm E. Miller, D.V.M., Ph.D., was Professor and Head of the Department of Anatomy in the New York State College of Veterinary Medicine at Cornell University. He taught veterinary anatomy from 1935 until his death in 1960. His *Guide to the Dissection of the Dog*, first published in 1947 by Edwards Brothers Press of Michigan, was revised with the help of his wife, Mary, through a third edition in 1952. *Miller's Guide to the Dissection of the Dog* by Evans and de Lahunta was first published in 1971, translated into Spanish and revised in 1973. A second edition, published in 1980, was translated into Japanese. This third edition alters some dissection procedures, updates anatomical nomenclature and adds new descriptive material and illustrations. A new feature is the inclusion of directions for palpation of the live dog at appropriate times during the dissection. Of the 233 figures, 33 have not appeared in the guide previously.

We are grateful to the many students and colleagues in various institutions for their helpful suggestions. Most of the illustrations were prepared by Marion Newson and Pat Barrow, former medical illustrators in the Department of Anatomy. There are additional drawings by William Hamilton and our present illustrator, Michael Simmons. The preparation of osteological and preserved materials was the responsibility of Reinhold Dembinski.

The purpose of this guide is to facilitate a thorough dissection of the dog in order to learn basic mammalian structure. We have attempted to emphasize what we believe is essential anatomical knowledge for the veterinary curriculum. The descriptions are based upon the dissection of embalmed, arterially injected adult dogs. The anatomical terms used are those that appear in *Nomina Anatomica Veterinaria* (third edition, 1983). A more detailed consideration of the structures dissected can be found in the second edition of *Miller's Anatomy of the Dog* by Evans and Christensen, published in 1979 by W. B. Saunders Company, Philadelphia.

HOWARD E. EVANS
ALEXANDER DE LAHUNTA

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INTRODUCTION

Anatomy is the study of structure. Physiology is the study of function. Structure and function are inseparable. The foundation of the science and art of medicine. One must know the parts before one can appreciate how they work. Gross anatomy, the study of structures that can be dissected and observed with the unaided eye or with a hand lens, forms the subject matter of this guide.

The anatomy of one part in relation to other parts of the body is topographic anatomy. The practical application of such knowledge in the diagnosis and treatment of pathological conditions is applied anatomy. The study of structures too small to be seen without a microscope is microscopic anatomy. Examination of structure in even greater detail is possible with an electron microscope and constitutes ultrastructure anatomy. When an animal becomes diseased or its organs function improperly, its deviation from the normal is studied as morbid anatomy or pathology. The study of the development of the individual from the fertilized ovum to birth is embryology; from the embryo to the adult is developmental anatomy. Teratology is the study of abnormal development.

MEDICAL ETYMOLOGY AND ANATOMICAL NOMENCLATURE

The student of medicine is confronted with an array of unfamiliar terms and names of anatomical structures. A better understanding of the language of anatomy helps make its study more intelligible and interesting. For the publication of scientific papers and communication with colleagues, the mastery of anatomical terminology is a necessity. To assure knowledge of basic anatomical terms, a medical dictionary should be kept readily accessible and consulted frequently. It is very important to learn the spelling, pronunciation and meaning of all new terms encountered. Variate structures are numerous, and in many instances common names are not available or are so vague as to be meaningless. One soon

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