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SECOND EDITION

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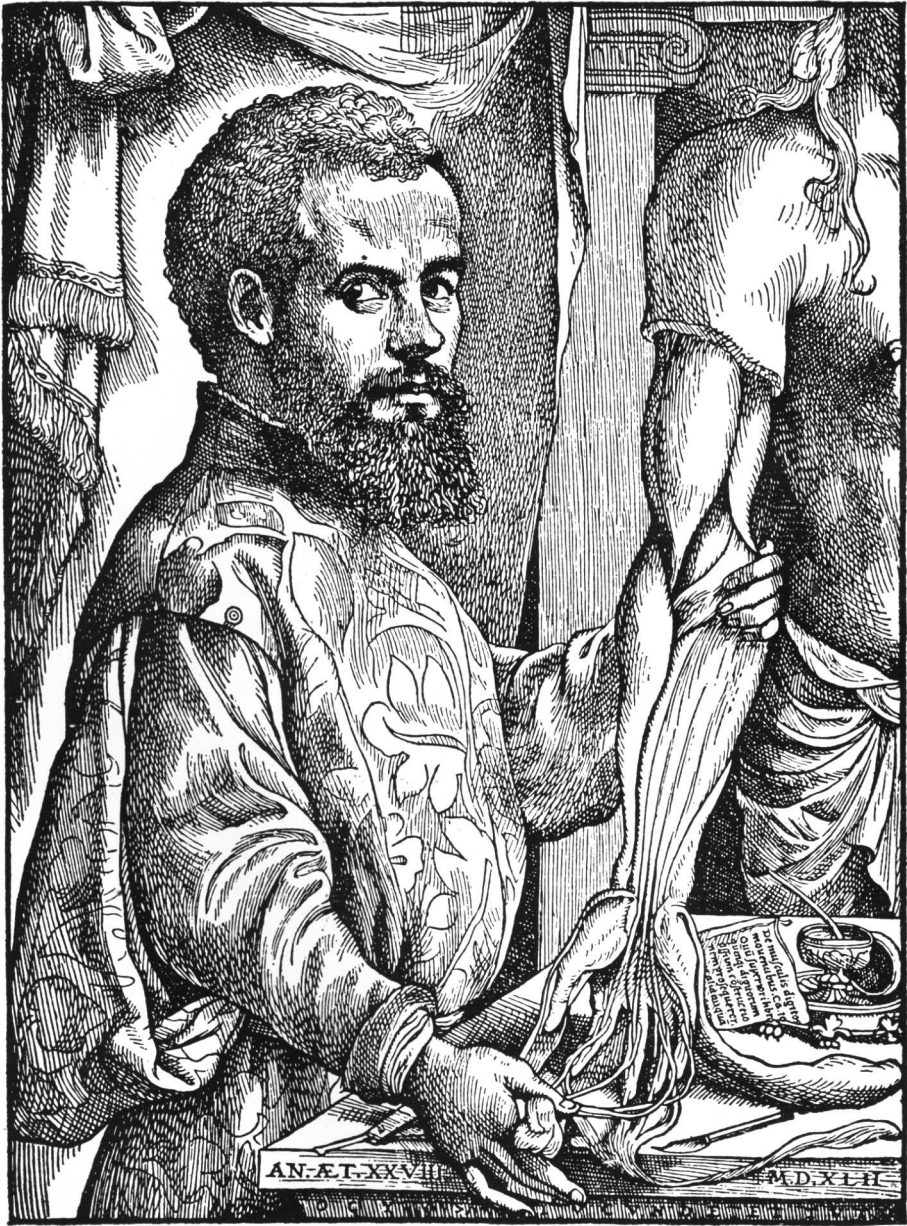
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ANATOMY

A Regional Study of Human Structure

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Andreas Vesalius (1514–1564)

A portrait of Vesalius, whose *De humani corporis fabrica* provided the basis for modern anatomy.
This portrait from the *Fabrica* is reproduced from the frontispiece of *The Illustrations from the Works of Andreas Vesalius of Brussels*, by J. B. de C. M. Saunders and C. D. O'Malley, World Publishing Co., 1950.

PREFACE TO THE SECOND EDITION

BOTH THE textual material and the illustrations have been revised extensively in the preparation of this edition. Many new drawings and several new plates have been included, and alterations have been made in a considerable number of the previously used illustrations. The textual matter has been kept approximately the same length as in the first edition. The increase in the number of pages is due to the incorporation of new illustrations and to the employment of larger reproductions of a number of the original figures. The recent literature has been reviewed and additional references inserted; in order to make room for these, some of the previous citations have been omitted. The terminology used is the *Nomina anatomica* of 1955 as amended in New York in 1960, translated into English wherever applicable.

The authors will again appreciate receiving comments and suggestions.

We wish to thank the many individuals,

students and teachers, for their comments, criticisms, and suggestions. We are especially indebted to Dr. David L. Bassett, of the Department of Anatomy, School of Medicine, University of Washington, and to Dr. Nicholas J. Mizeres, Department of Anatomy, Wayne State University College of Medicine.

We are grateful to Miss Evelyn J. Erickson, Mrs. Geraldine Fockler, and Miss Kathryn Murphy of the Department of Medical Illustration, and to Mr. Charles Pickard and Mr. Robert Wright, of the Department of Medical Photography, for their aid in connection with the illustrations.

We wish to record our appreciation to the W. B. Saunders Company. Their skillful assistance and expert guidance have again facilitated and expedited the completion of our work.

THE AUTHORS

PREFACE TO THE FIRST EDITION

THE MAJOR AIMS of the present work are (1) to provide a textbook that is sufficiently brief for the undergraduate medical and dental student during the present shortened course in human anatomy, (2) to provide information on living anatomy and to stress the importance of the relationship between structure and function, and (3), particularly by the citation of relevant references, to meet the needs of the more advanced student and the postgraduate worker.

After certain preliminary matters, mostly of a systemic nature, have been considered in a series of introductory chapters, the larger portion of the book follows a regional approach. The regional plan has been adopted chiefly because the vast majority of laboratory courses in human anatomy are based on regional dissection. Within any given region, however, a rigorous pursuit of the regional method, to the exclusion of systemic considerations, has not been attempted, because the present work is neither a laboratory manual nor a textbook of surgical anatomy. Thus, the position of the present book may be described as one of "moderate regionalism." The order in which Parts Two to Eight are studied can be varied to suit the needs of any given dissection schedule.

The special fields of neuroanatomy, histology, embryology, and comparative anatomy are dealt with nowadays in more or less separate courses and are covered in special textbooks. These fields have therefore been largely omitted, and the aspects that are included have been curtailed. Embryology and comparative anatomy, however, are sometimes studied before the student reaches a medical school, and, for this reason, paragraphs in which relevant information is reviewed are included (in small type) in the present book.

This textbook has been kept as concise and as simple as practicable in the hope that its didactic purpose may be achieved. Moreover, in a textbook of reasonable proportions, only the average pattern can be presented; variations and anomalies, despite their frequency and importance, can seldom receive more than cursory treatment. The importance of living anatomy has been kept in mind throughout, and a number of appropriate radiograms have been included. The material on living anatomy has been chiefly the responsibility of one of the authors (R. O'R.), the contents of whose *Living Anatomy*, Cork University Press, 1949, have been drawn upon extensively in preparing the present textbook.

The illustrations employed here have been designed to clarify the various points raised in the textual material and not to supplant either the anatomical atlas or, *a fortiori*, the dissection. Many of the illustrations have been drawn from dissections, or compared with dissections during their preparation.

The books and articles cited in footnotes and in the bibliographies throughout the textbook indicate some of the sources from which valuable information was obtained, and suggest to the more advanced student where greater detail can be found. The inclusion of recent references serves to emphasize that anatomy is a living discipline in which research plays an active and significant role. No attempt has been made, however, to include exhaustive lists of references. Moreover, in a book directed to readers of the English language, it is expedient that the majority of references are to works in that tongue, a selection necessitated by practical considerations and not by any lack of appreciation of the important publications in other languages. The abbreviations used for the journals are taken, where possible, from the *World List of Scientific Periodicals, Published in the Years 1900-1950*, Butterworths, London, 3rd edition, 1952.

The terminology used is the *Nomina anatomica* of 1955, translated into English where applicable. The *Nomina anatomica* is based largely on the B.N.A., and, in the matter of translations, those of the Birmingham Revision (1933) of the B.N.A. have generally been followed in the present text. On occasions where neither the original Latin nor a literal translation would be appropriate for usage in English, a liberal interpretation has been made. For example, *medulla spinalis* has been rendered as

"spinal cord," a procedure that had already been adopted in 1907 by L. F. Barker, in his *Anatomical Terminology with Special Reference to the B.N.A.*

In many places throughout the text and in the illustrations certain abbreviations have been used. These include: C, cervical; Co, coccygeal; L, lumbar; N, nerve; S, sacral; T, thoracic; V, vertebra. The above abbreviations have usually been combined, for example, T.V., thoracic vertebra. The word electromyography has been abbreviated to EMG in some instances. Abbreviations appearing only in the illustrations include: a., artery; br., branch; g., ganglion; gld, gland; lig., ligament; m., muscle; n., nerve; plx., plexus; tr., trunk; v., vein.

Simplicity and ease in reading would be better served if synonyms had been omitted, but, at the present time, it did not seem justifiable to do so. Commonly used synonyms, therefore, have been included (once) where each structure is described in the text. It is to be hoped that the international nomenclature will be widely accepted and that the need to provide synonyms will thereby be removed. Except in a few instances, eponyms do not appear in the text of this book. Some of those which are in common usage are defined in the Glossary of Eponymous Terms.

The authors will appreciate having their attention called to typographical errors as well as to errors of fact that may come to the attention of the reader. They will also appreciate having their attention directed to relevant information that may have been missed in the preparation of this book.

THE AUTHORS

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WE WISH TO THANK our colleagues for their advice on many problems and, in some instances, for reading portions of the typescript. We are especially indebted to Dr. Nicholas Mizeres, of the Department of Anatomy, Wayne State University College of Medicine, for his help in the preparation of dissections and illustrations. We are likewise indebted to Dr. David L. Bassett, of the Department of Anatomy, School of Medicine, University of Washington, for making a number of his superb dissections available to us for study.

We appreciate the courtesy of the Eastman Kodak Company, Rochester, New York, and, in particular, of Mr. William S. Cornwell, in making a number of radiograms available. We are also indebted to Dr. S. F. Thomas and his associates, of the Palo Alto

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We are grateful to Mr. Charles Pickard and Mr. Robert Wright, of the Department of Medical Photography, and to Miss Evelyn J. Erickson and Mrs. Geraldine Fockler, of the Department of Medical Illustration, Wayne State University College of Medicine, for their aid in the preparation of many of the plates.

We wish to record our appreciation to the W. B. Saunders Company. Their skillful assistance and expert guidance have facilitated and expedited the completion of this book.

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