

THIEME

Latin Nomenclature

Atlas of Anatomy

Volume 2
Internal Organs

Michael Schuenke
Erik Schulte
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Consulting Editors
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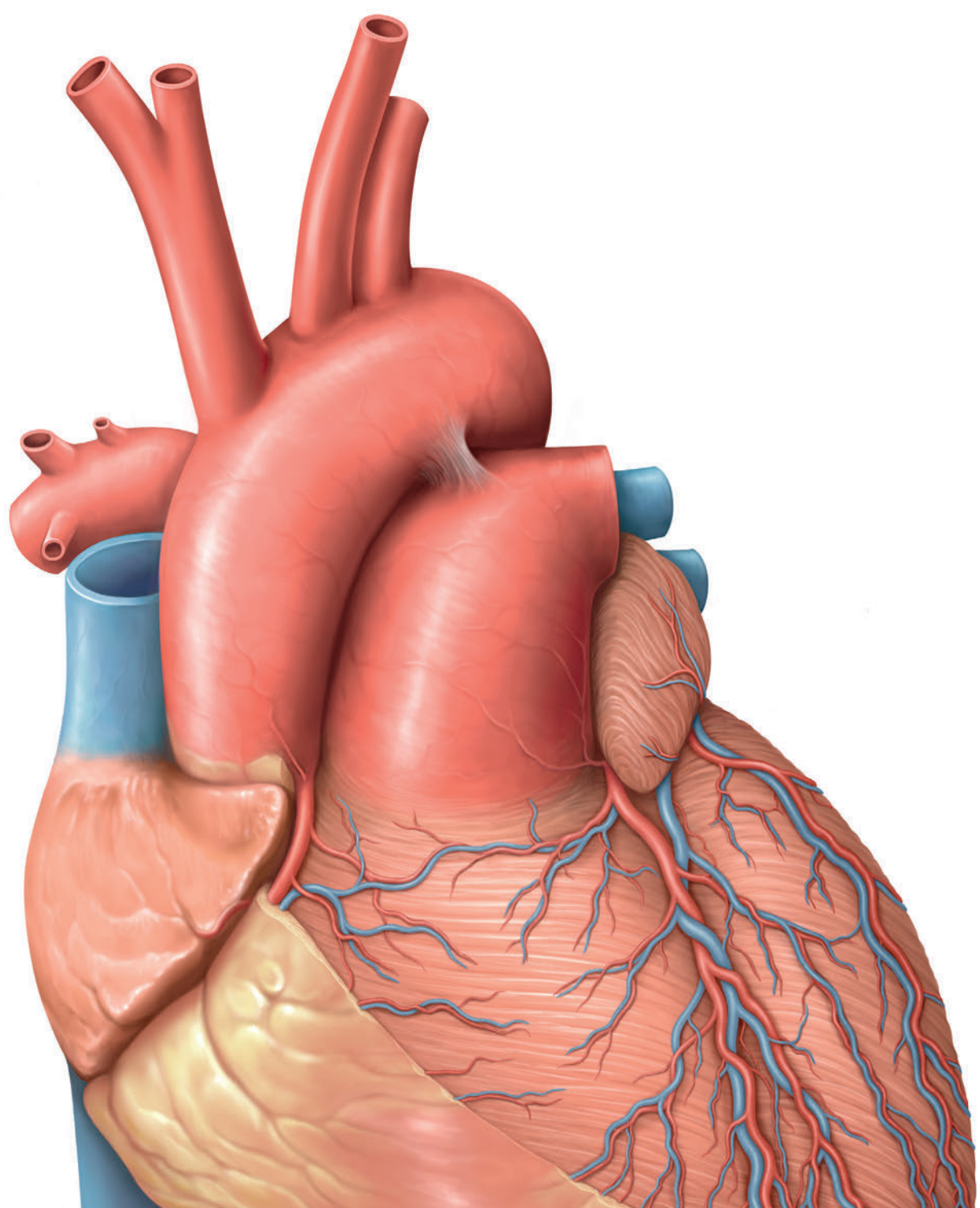
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Volume 2

Internal Organs

THIEME Atlas of Anatomy

Second Edition

Latin Nomenclature

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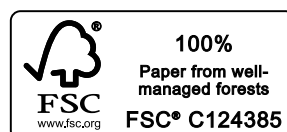
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Foreword

Each of the authors of the single volume *Thieme Atlas of Anatomy* was impressed with the extraordinary detail, accuracy, and beauty of the illustrations that were created for the Thieme three-volume series of anatomy atlases. We felt these images were one of the most significant additions to anatomic education in the past 50 years. The effective pedagogical approach of this series, with two-page learning units that combined the outstanding illustrations and captions that emphasized the functional and clinical significance of structures, coupled with the numerous tables summarizing key information, was unique. We also felt that the overall organization of each region, with structures presented first systemically—musculoskeletal, vascular, and nervous—and then topographically, supported classroom learning and active dissection in the laboratory.

This series combines the best of a clinically oriented text and an atlas. Its detail and pedagogical presentation make it a complete support for classroom and laboratory instruction and a reference for life in all the

medical, dental and allied health fields. Each of the volumes—*General Anatomy and Musculoskeletal System*, *Internal Organs*, and *Head, Neck, and Neuroanatomy*—can also be used as a stand-alone text/atlas for an in-depth study of systems often involved in the allied health/medical specialty fields.

We were delighted when Thieme asked us to work with them to create a single-volume atlas from this groundbreaking series, and we owe a great debt to the authors and illustrators of this series in as much as their materials and vision formed the general framework for the single volume *Thieme Atlas of Anatomy*.

We thank the authors and illustrators for this very special contribution to the teaching of anatomy and recommend it for thorough mastery of anatomy and its clinically functional importance in all fields of health care-related specialties.

Lawrence M. Ross, Brian R. MacPherson, and Anne M. Gilroy

Preface to the Second Edition

Gain new insights with the help of the *Thieme Atlas of Anatomy*!

In recent years, the combination of theoretical and clinical knowledge has taken on an increasingly important role in medical education and training. The *Thieme Atlas of Anatomy* has always been cognizant of these changes by including references in legends, adding select illustrations and creating new units wholly devoted to a particular clinically relevant topic.

The close relationship between classic and clinical anatomy does not only manifest itself in medical students gaining experience in clinical work early on in their studies. On the contrary, research in clinical anatomy often influences classic anatomy and in turn becomes a part of medical education.

One such example is the findings of decades-long clinical research conducted by colleagues in the Urology Clinic of the University of Leipzig. Among other topics, the urologists in Leipzig have researched how to protect structures important for urine continence during pelvic surgeries, such as radical prostatectomies. This procedure, despite preserving the sphincter and its innervation, often results in postoperative urinary incontinence. The team, led by Professor Jens-Uwe Stolzenburg and Dr. Thilo Schwalenberg, searched for the causes of this phenomenon and discovered that, as a result of surgery to remove the prostate, the location of the sphincter may change or musculo-fibrous structures that

anchor the neck of the bladder and the urethral sphincter to the pelvic floor, may get damaged. The team's research has shown that preserving these musculo-fibrous structures during prostatectomy significantly reduces the risk of postoperative urinary incontinence.

The colleagues in Leipzig deserve great credit for recognizing these relationships and for discovering that significantly more structures than "only" the sphincter and its innervation are involved in micturition and continence. It is thanks to the team's research in clinical anatomy that we today have a better understanding of the complex continence mechanism, which we are now able to share with medical students. This volume about the internal organs has been revised to include these latest findings.

We would like to take this opportunity to explicitly thank our readers for their feedback and to encourage them to keep sending us their comments and remarks. The *Thieme Atlas of Anatomy* will continue to give you the support you need!

We wish you success studying with the *Thieme Atlas of Anatomy*!

*Michael Schuenke, Erik Schulte, Udo Schumacher,
Markus Voll, and Karl Wesker
Kiel, Mainz, Hamburg, Munich, and Berlin*

Preface to the First Edition

When Thieme started planning this atlas, they sought the opinions of students and instructors in both the United States and Europe on what constituted an “ideal” atlas of anatomy—ideal to learn from, to master extensive amounts of information while on a busy class schedule, and, in the process, to acquire sound, up-to-date knowledge. The result of our work in response to what Thieme learned is this atlas. The *Thieme Atlas of Anatomy*, unlike most other atlases, is a comprehensive educational tool that combines illustrations with explanatory text and summary tables, introducing clinical applications throughout, and presenting anatomic concepts in a step-by-step sequence that includes system-by-system and topographical views.

Because the *Thieme Atlas of Anatomy* is based on a fresh approach to the underlying subject matter, it was necessary to create an entirely new set of illustrations for it—a task that took eight years. Our goal was to pro-

vide illustrations that would compellingly demonstrate anatomic relations and concepts, revealing the underlying simplicity of human anatomy without sacrificing detail or aesthetics.

With the *Thieme Atlas of Anatomy*, it was our intention to create an atlas that would guide students in their initial study of anatomy, stimulate their enthusiasm for this intriguing and vitally important subject, and provide a reliable reference for experienced students and professionals alike.

“If you want to attain the possible, you must attempt the impossible”
(Rabindranath Tagore).

*Michael Schuenke, Erik Schulte, Udo Schumacher,
Markus Voll, and Karl Wesker*

A Note on the Use of Latin Terminology

To introduce the Latin nomenclature into an English textbook is a delicate task, particularly because many Latin loanwords have passed into general use. Some loanwords are so common that fluency of the text would be disturbed if they were to be translated back into Latin. These Latin loanwords have typically undergone several adaptations before becoming part of the English language. A term such as *sympathetic trunk* (lat. *truncus sympaticus*) has undergone morphological adaptation (through the loss of masculine suffix *-us*), orthographical adaptation (through the substitution of a 'Germanic' *k* for a Latin *c*), and phonological adaptation (*th* and *e* instead of *t* and *i*). In addition, the word order has been reversed. The Latin term *sympaticus* is in fact borrowed from the late Greek word *sympathetikos* (from *sympathes* "having a fellow feeling, affected by like feelings"), thereby illustrating that terms move between languages when cultures meet.

Other anatomical terms are so colloquial (e.g., *hand*), that a Latin term (e.g., *manus*) would be inappropriate to use at all occasions. Clearly, the text would easily become unreadable if a strict translation of all English terms into Latin were imposed.

As a result, Latin has been used as long as it does not disrupt the flow of the text and whenever possible in figures and tables. In some cases, dual terminology has been used, with either the English or Latin word in parenthesis. As much as possible, the terminology of *Terminologia Anatomica* (1998) has been followed.

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