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## Silbernagl S, Despopoulos A. Color Atlas of Physiology. 6th edition.

Stuttgart-New York: Thieme; 2009. 456  
pages; ISBN 978-3-13-545006-3; price:  
€ 34.95

**Field of medicine:** Medical (physiology) education.

**Format:** Pocket-size paperback book.

**Audience:** The atlas is intended for medical, dental, and biology students, physicians, scientists, and anyone who wishes to refresh their knowledge on physiology or be introduced to its basics. It is especially suitable for students at all levels, with emphasis on subjects relevant to students of human medicine.

**Purpose:** The purpose of the Atlas is to provide “everything medical students need to know to pass their pre-clinical physiology exams” and to be “valuable reference for practicing physicians and scientists, to help them recall previously learned information and gain new insights in physiology.” The authors use 189 color plates on 456 pages to present an overview of the basic knowledge of modern human physiology, including new approaches and aspects.

**Content:** The atlas is divided into 13 chapters: Fundamentals and Cell Physiology; Nerve and Muscle, Physical Work; Autonomic Nervous System (ANS); Blood; Respiration; Acid-Base Homeostasis; Kidneys, Salt, and Water Balance; Cardiovascular System; Thermal Balance and Thermoregulation; Nutrition and Digestion; Hormones and Reproduction; Central Nervous System and Senses; and Appendix. The chapters are subdivided into short paragraphs, which succinctly describe and discuss major aspects of the chapter topic.

The book starts with the explanation of all the fundamental principles and concepts of physiology and cell biology. Furthermore, several essential concepts necessary for understanding of the chapters to follow are cov-

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ered, such as transport, electrical membrane potentials and ion channels, and the role of  $\text{Ca}^{2+}$  in cell regulation. This chapter is followed by the chapter on nerve and muscle, and physical work, and the chapter describing basic organization and functioning of autonomic nervous system. The Blood chapter provides, except the basics on the composition and function of blood, the latest findings about iron metabolism and blood coagulation. The chapter on respiration presents the fundamentals of artificial respiration, lung diseases, lung volumes and lung tests, which are not covered so well in other handbooks, making it very helpful for physicians. In the next chapter, everything that a student or physician needs to know about acid-base homeostasis, abnormalities, and diagnosis, is excellently summarized in only 10 pages. The Kidneys, Salt, and Water Balance chapter offers a completely new material on thirst and regulation of salt and water balance. The cardiovascular system is presented in the next chapter, and clear images and well-written text make it easy for the student to understand the working of the human heart. The next two chapters, Thermal Balance and Thermoregulation and Nutrition and Digestion deal with thermal balance and give new information about body-weight regulation. The last two chapters discuss the function of hormones and describe some of the most important aspects of reproduction and central nervous system. At the end of the book, the Appendix offers a number of tables with units and reference values in physiology, as well as graphic representation of data, which is useful for better understanding of basic physiological pathways described in the previous sections.

**Highlights and limitations:** What I like about this book is the way that information is visually presented for the student: highlighting on each page calls attention to clinically relevant and pathophysiologic data and clinical key words.

This atlas differs from other atlases in the quality of illustrations and the fact that it covers all important topics and concepts, as well as the most recent findings in different areas. Despite its pocket-size, the atlas contains all the essential information on human physiology. Although some may prefer a more comprehensive presentation offered by a number of textbooks available on the market, this informative, accurate, and easy-to-survey atlas may be very helpful if you do not have enough time on your disposal. Each right page of the book is illustrated, giving the schematic figures of physiology processes described on the left page. This makes learning very easy. Since by definition an atlas must focus on graphical presentation, it is very important that each of 189 color plates, although given in rela-

tively small-size figures, is easy to understand and is clear, informative, and of high quality.

**Related reading:** A number of other pocket-size color atlases are available from Thieme Flexibook series: Color Atlas of Immunology by G. K. Burmester; Color Atlas of Pathophysiology by S. Silbernagl; Color Atlas of Cytology, Histology and Microscopic Anatomy by W. Kuhnel; Color Atlas of Biochemistry by J. Koolman; Color Atlas of Neuroscience: Neuroanatomy and Neurophysiology by B. Greenstein; Color Atlas of Genetics by E. Passarge; Color Atlas of Neurology by R. Rohkamm; and Color Atlas of Pharmacology by H. Lutz.