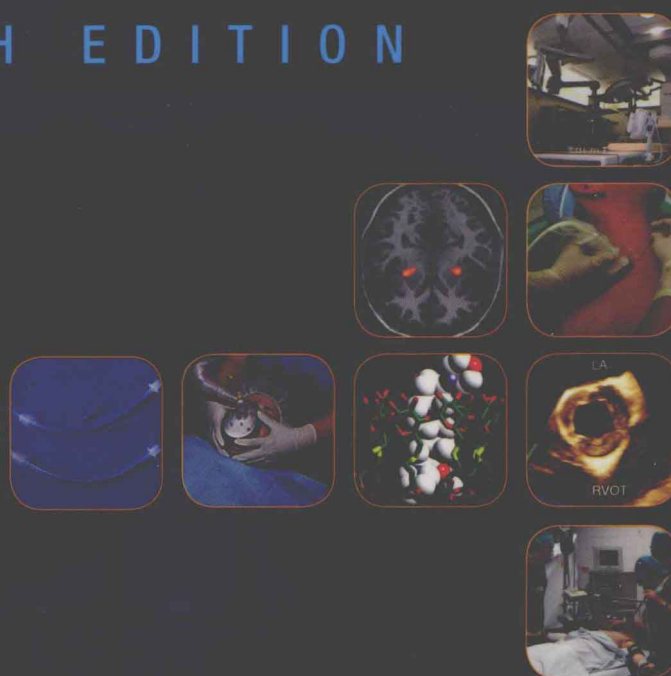


Miller's Anesthesia

SEVENTH EDITION



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Miller's Anesthesia

Seventh Edition

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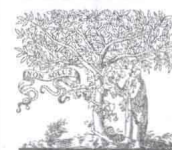
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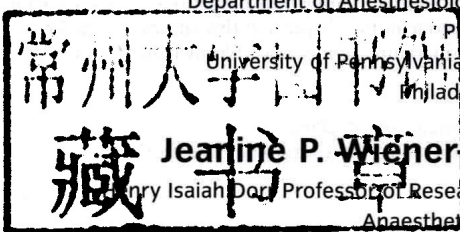
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The Publisher

Note to the Reader

As this edition of *Miller's Anesthesia* was being released to press, a far-reaching fraud involving a researcher in the field of perioperative analgesia came to light, leading to numerous retractions of articles published by several leading anesthesiology journals.¹ Although none of the chapters in this edition cite this research, the readers are advised to continually review the latest literature on the state of knowledge relevant to the practice of anesthesiology.²

1. Shafer SL: Tattered threads (editorial). *Anesth Analg* 108(5), 2009.
2. White PF, Kehlet H, Liu S: Perioperative analgesia: What do we still know? (editorial). *Anesth Analg* 108(5), 2009.

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Preface to the Seventh Edition

For over 25 years, *Miller's Anesthesia* has been recognized as the most complete and thorough resource on the global scope and practice of contemporary anesthesiology. The seventh edition continues that tradition and represents the most extensive revision we have ever undertaken. These advances include 13 new chapters, more than 30 new authors, and 1500 full-color illustrations. All existing chapters were meticulously revised and updated. The extensive scope of the revision was greatly facilitated by a team of expert and dedicated associate editors: Lee A. Fleisher, MD, Professor and Chair of the Department of Anesthesiology and Critical Care at the University of Pennsylvania; Jeanine P. Wiener-Kronish, MD, Anesthetist-in-Chief, Massachusetts General Hospital and Professor of Anaesthesia at the Harvard Medical School; William L. Young, MD, Professor and Vice Chair of the Department of Anesthesia and Perioperative Care, University of California, San Francisco; and Lars I. Eriksson, MD, PhD, Professor and Academic Chair of Anesthesiology and Intensive Care Medicine at the Karolinska University Hospital in Stockholm.

The 13 new chapters were added in response to an intense analysis of the changes in the scope of anesthesiology. The increasing importance of critical care medicine dictated five separate chapters on nitric oxide, clinical critical care protocols, neurocritical care, renal replacement therapy in the critically ill patient, and prehospital emergency and trauma care, which complements the existing chapter on anesthesia for trauma. The entire state of anesthesia for surgery and other procedures is being examined in more depth in two new chapters on sleep, memory, and consciousness, and perioperative cognitive dysfunction and other long-term implications of anesthetics, the implications being that general anesthesia may have impact long after its administration has been completed. Some rapidly evolving and important subjects in anesthesia are detailed in new chapters on anesthesia for correction of cardiac arrhythmias and anesthesia for bariatric surgery, given that obesity is a major health care issue in many areas of the world, particularly in the United States. The multiple opportunities to interfere with or correct abnormalities in coagulation dictated a separate chapter.

Ultrasound guidance has become a standard of care in the modern practice of regional anesthesia; thus, a dedicated chapter focused on the technique of ultrasound-guided regional anesthesia was clearly warranted. The philosophic question is whether non-ultrasound-guided techniques should continue to be taught, given that many clinicians practice in countries and regions that

cannot afford ultrasound technology. Likewise, information technology has become increasingly dominant in medicine as a whole, but especially in anesthesia, necessitating a focused analysis in a dedicated chapter. An ever-growing number of medical centers rely on paperless communication and record keeping, including the anesthetic record. Information technology also allows formation of databases, which can answer important questions related to the institution or individual health care delivery. Chapter 2, entitled Scope of Modern Anesthetic Practice, covers the scope of anesthesia as we know it now with use of modern technology. Lastly, *Miller's Anesthesia* now incorporates the scope and historical development of anesthesia practice in many areas of the world. In Chapter 3, entitled The International Scope and Practice of Anesthesia, the individual contributions from numerous leaders of anesthesia worldwide were compiled into a synopsis of international anesthesia from its origin to the present. Further attesting to the book's global perspective, *Miller's Anesthesia* features contributions from anesthesiologists from all over the world, with 45 contributors to this new edition practicing outside of North America.

Each 2-volume set of the 7th edition of *Miller's Anesthesia* is now accompanied by access to a dedicated *Expert Consult website*, either basic or premium edition. The *basic edition* includes complete, fully searchable online text. The *premium edition* includes all of the above plus additional high-value features such as regular content updates, references linked to Medline abstracts and full-text articles, downloadable image library, drug database, self-assessment questions, and, most importantly, an extensive video library featuring full-length video presentations of anesthesia procedures including airway and ultrasound-guided regional anesthesia techniques.

We wish to acknowledge the long-time participation of Roger A. Johns, MD, and John J. Savarese, MD, who served as consulting editors on the previous edition. We are grateful for the tireless help of Tula Gourdin, who managed all communication with contributors and the publisher, facilitated the flow of manuscripts and page proofs, and checked every detail to make sure the chapters are as accurate and consistent as possible. We also wish to acknowledge our publisher, Elsevier, and the help and dedication of their staff, in particular executive publisher Natasha Andjelkovic, senior developmental editor Heather Krehling, and project manager Fran Gunning.

Ronald D. Miller, MD

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