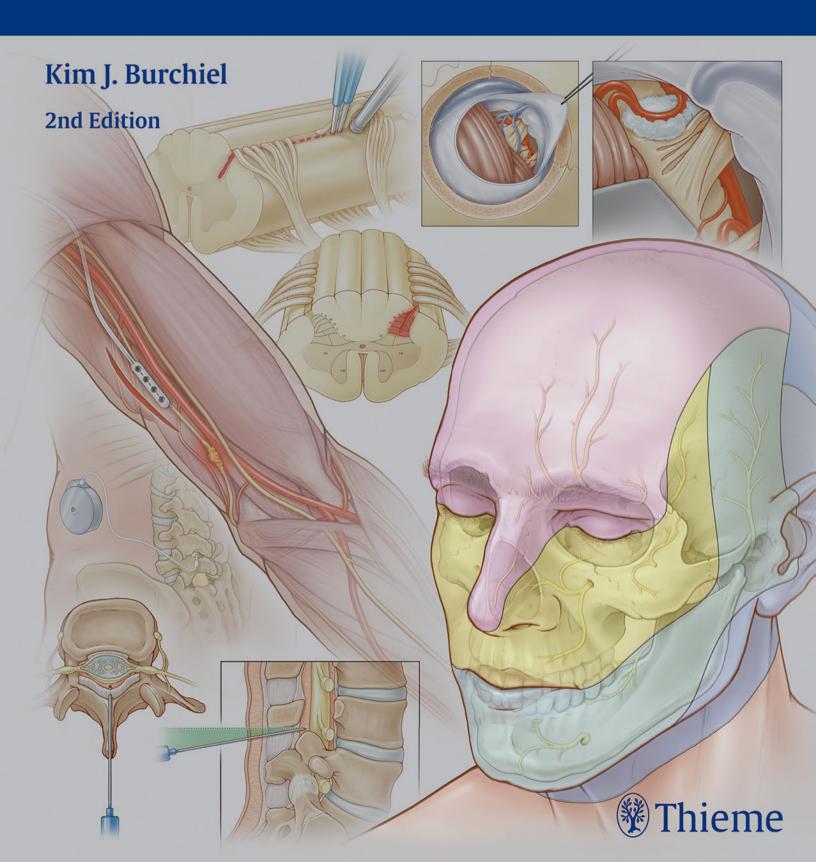
# Surgical Management of Pain





# **Surgical Management of Pain**

2nd Edition

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Kim J. Burchiel, MD, FACS

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### Foreword

Over the past several decades, neuroscience has gained society's attention as never before. Technological advances of neuroimaging, understanding in the basic sciences, and increasingly sophisticated therapeutic interfaces are endowing functional neurosurgery with unprecedented capabilities. The application of these powers to relieve the suffering of our fellow man is a responsibility all of us share. Few aspects of neurosurgery are as difficult or challenging as that of treating the patient with medically intractable pain. There are many far more straightforward—and far less frustrating—areas in surgery. And yet, helping the patient in pain is one of the most fundamental and important things a physician can do. That intractable pain syndromes are among the most prevalent conditions only heightens the critical importance of this endeavor.

The ability to help the patient in pain requires a fund of knowledge, experience, and competence that is very much in demand. Basic understanding of pain and its anatomic and physiologic substrate remains incomplete, and while some interventions have been highly successful, many others have had only mixed results. Our training programs, with their diversity of subspecialty areas and operative offerings to distract all of us from potentially more refractory problems, often struggle to educate tomorrow's healers in this crucial domain. Experience and, ultimately, competence cannot be gleaned from textbooks alone, but much of the requisite fund of knowledge can be transmitted and attained through the best of such works. This edition is one of these.

There are few neurosurgeons as qualified as Kim Burchiel to have conceived, organized, and edited this reference work. His experience and expertise in this field are recognized and respected by all in neurosurgery. This text takes on the breadth of the surgical management of pain with consistency and lucidity and is geared to the practicing physician. The Editor's Comments at the close of each chapter are especially valuable: in addition to summarizing key points and contributing his own experience, Dr. Burchiel shares the wisdom of one who sees the big picture and can place the condition and the surgical considerations in proper perspective. His commentaries successfully strike a balance between realistic appreciation of present limitations and constructive insight into where we've been and where we need to go. Burchiel's Surgical Management of Pain conveys both the science and the art of the field to guide us forward in this challenging and most important discipline of helping patients.

> David W. Roberts, MD Section Chief, Neurosurgery Professor of Surgery Geisel School of Medicine Dartmouth College Hanover, New Hampshire

## Preface

The concept of a textbook dedicated to the surgical treatment of various pain syndromes was born more than a dozen years ago, from what I felt was, at that time, a lack of definition of the field. My goal was a compilation of historic and contemporary procedures that would at least frame the subject. The first edition of this textbook was well received and became a reference point for clinicians. I felt that we had achieved the goal of definition to a large degree.

With the perspective of time, it is clear that certain procedures have either proven ineffective, have been supplanted by more modern techniques, or have been updated by new knowledge. This new edition attempts to winnow the field by devoting content to conditions and operative procedures that continue to have an important and active role in the area of surgical pain management. We have striven to make the text clear to the reader and to bolster opinions with the highest quality outcome data available.

The text is supported by illustrations that communicate the principles of the discussion, or the relevant surgical procedures. I think the reader will find that this effort has made the book more understandable and informative. The treatment of chronic pain is daunting and imperfect. Surgeons understandably shrink from the challenge. What we do is invasive, some would say brutal, and in many cases irreversible. Often, prudent surgeons avoid a surgical approach to pain in consideration of the dictum *primum non nocere*: "first, do no harm." It is certainly a driving principle that governs my day-to-day practice. The antidote to responsible reluctance is knowledge, experience, and, ultimately, competence in knowing when we can reasonably help and when we cannot.

My hope is that this textbook will perpetuate the discipline of surgical pain management. Only by continuing this discussion can we ever hope to make further progress in this area. I have been impressed during my career, and in watching the progress of other colleagues, that a surgeon dedicated to the relief of pain can make an enormous impact on patients' lives. This is not something to be forgotten or abandoned. In fact, I believe that our finest contributions to the surgical treatment of pain are yet to come.

Kim J. Burchiel, MD, FACS

# Acknowledgments

I would like to recognize the support of Thieme in bringing this edition to fruition. Judith Tomat and Kay Connerly were the prime movers, and Timothy Hiscock has ably brought the project home. Every person I have worked with in the production of this textbook has been an exemplar of professionalism and collegiality. I am indebted to you all.

I would also express my deepest thanks to our illustrator, Andy Rekito. He has devoted his efforts to make this book both attractive and informative. By his example, he has taught me much about the value of medical illustration and the content that is sometimes subliminally imbedded in a figure. I think he is the current role model in this field.

Finally, I would like to convey my sincere gratitude to the chapter authors. You are all very busy people and have put up with endless questions and revisions. I know for you that this is a labor of love, as it is for me. I hope the final product justifies your commitment to this textbook.

Kim J. Burchiel, MD, FACS