

## Preface

For many decades, the dental specialty of endodontics was a satisfactorily stable, if somewhat static, profession. However, recent years have witnessed dramatic progress in the discipline. A perfect example of this can be found in the fact that our book *Endodontology*, published almost seven years ago, was followed only one year later by a new volume that reported rapid development in the clinical discipline, especially the remarkable developments with nickel-titanium (NiTi) files. In addition, our original book only *hinted* at new possibilities in endodontics offered by the surgical microscope, ultrasonic devices and microsurgery; in most recent years, these have become state-of-the-art in the daily practice of endodontics.

In the interim, actually within the most recent months, further developments and new procedures have emerged, and scientific studies have contributed significantly to improved understanding of the new instruments and new materials, including possibilities and limitations.

The introduction of high-tech equipment such as the surgical microscope, in combination with ultrasonic devices makes possible today therapeutic endeavors and treatment successes that were virtually unattainable only a few years ago, and then only by a very small number of endodontic enthusiasts.

NiTi files utilized with special computer-controlled motors today permit predictably improved root canal instrumentation in virtually all cases. The significance of chemical adjuncts during canal irrigation has been re-emphasized. Also, the actual filling of the canal using softened gutta percha and a sealer has

been perfected, leading to its much broader applicability. Emphasis has been placed, and new knowledge employed concerning not only the impermeable apical closure of the root canal system, but also the importance of an impermeable *coronal* seal, especially in terms of the ever-present danger of post-endodontic coronal leakage.

All of this new knowledge and all of these new materials and devices offer tremendous potential for endodontic successes. However, these also demand from the clinician a continually changing orientation, and an up-date of her/his knowledge, because while technical aids and new materials are important, the theoretical background and understanding/knowledge of their clinical application is of even more significance. It is with these concepts and principles in mind that we offer this new, compact yet comprehensive book, which will provide a rapid and contemporary orientation in the daily dental/endodontic practice.

The half-life of knowledge today renders any attempt at printed fixation of new knowledge only a momentary endeavor. Modern media such as the internet and all of its possibilities for research present a primary option for each individual to achieve up-to-the-minute orientation world-wide. Nevertheless, in the future *books* will maintain their position on the front line because they offer information in an accessible and always available form, in black and white, for orientation and concentration.

Rudolf Beer, Essen  
Michael A. Baumann, Cologne  
Andrej M. Kielbassa, Berlin

## Foreword

Throughout the decades of the late 1800s and throughout most of the early 1900s the dental specialty of endodontics was essentially stagnant: Dental caries led to pulpal involvement, inflammation and pain. In almost all patients, the "treatment of choice" was, simply, tooth extraction. However, patients with sufficient means were invited into the risky realm of "root canal treatment," which offered no guarantees of success and which was supported by only a paucity of clinical or scientific base. It was a purely mechanical effort to eliminate a patient's pain by removing the source of that pain, literally by removing the nerves within a tooth. No nerve – no pain! There was no scientific inquiry, no "differential diagnosis," only a tedious mechanical endeavor.

And then, in the middle of the 20<sup>th</sup> Century, innovative and targeted clinical (animal and human) as well as laboratory research by pioneers including Blaney, Grossman, Bender and Seltzer, and Schröder, and later Vertucci and Stashenko, provided endodontics with the scientific basis it had always lacked. Scientific and clinical findings spurred a virtual endodontic renaissance among dental practitioners. Such enthusiasm quickly spurred dental manufacturers to their own renaissance in materials and equipment targeted toward effective and long-term successful endodontic therapy.

This *Pocket Atlas of Endodontics* is a contemporary presentation of the state-of-the-art in root canal therapy. The book makes no claim to being the "final word" in the discipline; rather, it *objectively* presents where endodontics is today. It presents many approaches to the myriad of maladies of the endodontium, and presents the appropriate clinical and scientific evidence to support various treatment modalities. But the strength of this book is the authors' reluctance to endorse any single tech-

nique. The authors demand of the reader is that she/he draw her/his own conclusions relating to the treatment of various types of pulpal involvement. The authors openly and frankly acknowledge that clinical endeavors must be based upon scientific research, the knowledge that has emanated therefrom, each clinician's strengths, and above all, upon each patient's understanding of her/his affliction and each patient's desires for reconciliation of an uncomfortable situation.

This book provides almost astonishingly complete coverage of a rapidly-advancing medical/dental discipline, with a minimum of verbiage to confuse the practitioner or obfuscate the issue at hand. The illustrations are of high quality and reduced to the basics required for understanding a concept. This book addresses new and patient-centered exigencies directly and adroitly, presenting traditional endodontic concepts as well as surgical intervention in a new and refreshing light. This book addresses the *consequences* of endodontic treatment as well as the technical aspects of patient care in the daily practice of dentistry.

The authors have invested extensive time and effort to freshly describe the etiology and pathogenesis of various disorders of the endodontium, encompassing the most contemporary clinical and basic research findings. The literature citations are up-to-date, but limited to the most significant articles that relate to daily practice.

I am pleased and proud to introduce this new book, which effectively bridges the gap between scientific esoterica and the practitioner's daily need for relevant knowledge.

Thomas Hassell, Flagstaff, Arizona