

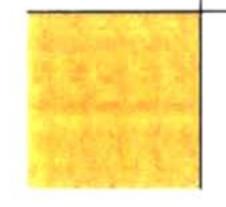
CONTEMPORARY FIXED PROSTHODONTICS

Rosenstiel Land Fujimoto FIFTH EDITION



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FIFTH EDITION

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PREFACE

In the late summer of 1975, three young dentists from England, Holland, and Japan met for the very first time at the School of Dentistry in Indianapolis. They shared a common interest in "crown and bridge" prosthodontics. Little did they know that 40 years later they would take immense satisfaction in having completed the fifth edition of Contemporary Fixed Prosthodontics.

As the three of us embarked on mastering the art and science of fixed prosthodontics, we encountered the complete range of human emotions, ranging from insecurity to self-confidence, from frustration to fulfillment, and from anxiety to satisfaction and occasional pride. It is with much pride that we introduce this comprehensively updated and revised edition of one of the most widely used and translated texts in our field.

The task once again was overwhelming. Technology had developed far beyond our comfort zones of clinical sciences and dental materials. The technological advances in imaging and CAD/CAM tempted us to add a chapter (in an appropriate place in the text) summarizing new technological developments. Instead, we opted to integrate new technologies throughout the text, as we consistently tried to do in earlier editions. Early in the review process, we realized that describing some of the new systems would be impossible in a step-by-step format. Advances and improvements occur at such a pace that a chapter that was comprehensively rewritten would soon be out of date. As a result, we embarked on a process of breaking down the newer technologies into their underlying principles and then integrating this information often gleaned from sources outside the conventional dental literature—into the text.

The fifth edition now includes cone-beam technology for diagnostic purposes and implant placement. Impression making was expanded with a section on optical imaging, and solid casts are contrasted with their virtual counterparts. Wax pattern fabrication is still presented in the classical manner but is augmented with specific information on computer-aided design followed by either printing or milling. Similarly, the section on the fabrication of metal ceramic substructures and all-ceramic restorations was revised to include the new CAD/CAM techniques.

Since the publication of the fourth edition, the dental laboratory industry has undergone revolutionary change.

Smaller laboratories must compete with large corporations that can more easily invest in expensive new technologies. When we visited laboratories and manufacturers, we realized that the transition to CAD/CAM was not a seamless process.

A number of years ago, a highly skilled and seasoned ceramist at a major dental laboratory was put in charge of the digital production of all-ceramic restorations. He shared with us that the learning curve had been particularly steep in the beginning when he tried to teach the very best and brightest computer personnel he could find the necessary dental knowledge. A number of years into this process, he started to teach his most experienced certified dental technicians how to operate some of the newly developed CAD/CAM tools, and, as he told us, "In six months, we were up and running, and we have never looked back."

The foregoing experience reinforces the importance of establishing a solid foundation in the fundamental skill sets for fixed prosthodontics before successfully applying them to some of the new technologies. Any student of fixed prosthodontics must have a thorough knowledge of dental anatomy, tooth form and function before embarking on even the classical approaches to the fabrication of individual crowns or simple fixed dental prostheses. A thorough understanding of form and function is, in turn, prerequisite to achieving mastery of today's cutting-edge technologies. A sincere effort was made to include new illustrations of commonly incorporated techniques in undergraduate curricula throughout the United States and Canada. Popular techniques have been added to the previously recommended approaches, illustrations of instrumentation have been replaced to incorporate contemporary equipment, and other new materials have been incorporated throughout.

With this text, we hope to serve predoctoral students, postdoctoral fellows, practitioners, and researchers. The text is well indexed, and every effort has been made to ensure the rapid retrievability of evidence-based information for the busy practitioner or dental manufacturer.

Stephen F. Rosenstiel Martin F. Land Junhei Fujimoto

Acknowledgments

In recognition of so many colleagues and friends ...

Where to begin? After three decades, we are unlikely to achieve absolute accuracy in crediting all of those whose selfless contributions to the development of this text have helped it evolve. Whenever we asked, we met with a willingness to share concepts, new technology, illustrations, photographs, materials, and whatever else we requested. Permissions were routinely granted and, invariably, most kindly approved. We again have made every effort to accurately and precisely give credit to all of those to whom credit is due. Any errors and omissions are absolutely unintentional and the sole responsibility of the authors—we apologize if such should have occurred.

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In each of the previous editions, we have written a special thank you to our spouses, Enid, Karen, and Yoshiko. Sadly Karen Tolbert Land died on January 4, 2014, and was not able to see this fifth edition through to completion. Her home in Alton, Illinois, always served as our base when we met with Elsevier in St. Louis. Working on this edition was not the same without her hospitality.

"Looking back over my career, I can tell you a lot of things about fixed prosthodontics. Most importantly, I can tell you very sincerely: I have never been bored" said the experienced teacher.

The fifth edition of Contemporary Fixed Prosthodontics is close to what we originally envisioned as we embarked on this original journey. We hope that it will help advance the art and science of what is beyond question the most challenging clinical dental specialty. We know that we do not have all the answers, but we hope that students and practitioners, researchers and manufacturers, and all who demonstrate the interest and commitment necessary to achieve mastery in a discipline we have come to love and respect, may find many, if not most, of the answers they seek.

Stephen F. Rosenstiel Martin F. Land Junhei Fujimoto

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