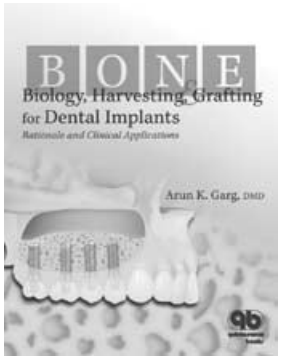
information about what should happen at each appointment or phase of appointments. Many principles from other disciplines are reviewed, to ensure that the reader takes into account not just the restoration of the partially edentulous arch but also the whole patient. The one weakness that stands out is the lack of information on the exploding area of osseointegration and how it can aid in the treatment of the partially edentulous patient. Although there are several clinical examples of how implants can be used to help support removable partial dentures, they are presented only as clinical photographs and do not really give the reader any ideas or information on how to incorporate implants into removable partial denture treatment. Overall, Part II presents not only standard techniques that have been proven to work well, but also alternatives and their indications for use.

The shortest part of the book is Part III, which deals with maintenance and repair of removable and temporary partial dentures. The last chapter deals with the extremely complex topic of removable partial denture considerations in maxillofacial prosthetics. This topic could be the subject of a textbook on its own. The authors describe several classifications of maxillofacial partial edentulism, design considerations, and the types of prostheses that these severely compromised patients need. Treatment options for these patients are presented in such a way as to be just enough for practitioners to have an understanding of what is involved in treating these patients. This area of dental therapy is very demanding, as are the demands of these patients. Except for those patients with the simplest of defects, patients with maxillofacial defects should probably be treated only by those who have had advanced training in maxillofacial prosthodontics.

Overall, this is an excellent resource for both dental students and practitioners. This well-organized text allows for quick and easy reference. It also provides for in-depth review of a number of techniques to ensure excellence in patient care for the student and the practitioner. The two shortcomings I hope the authors will address in future editions relate to incorporating both the American College of Prosthodontists Diagnostic Classification for the Partially Edentulous Patient into the diagnosis section of the text, and also the use of implants in removable partial denture therapy.

Igor J. Pesun, DMD, MS, FACP
Associate Professor, Division of Prosthodontics, University of Minnesota, Minneapolis, MN



Bone Biology, Harvesting, and Grafting for Dental Implants: Rationale and Clinical Applications

Arun K. Garg. Quintessence Publishing Co., Inc., Carol Stream, IL, 2004: ISBN 0-86715-441-1 (279 pages, 692 illustrations (mostly color); price $158; hard cover)

As suggested by the title, the purpose of this textbook is to review all aspects of the interactions of bone biology, bone harvesting, bone grafting, and dental implantology. The author continually emphasizes understanding of the basic biologic processes to elevate the reader's knowledge not only in technical aspects, but also the corresponding biologic processes. This textbook provides detailed explanations with excellent references at the end of each chapter. The intended audience is primarily clinicians experienced in periodontics or oral and maxillofacial surgery, as well as graduate students in those fields.

The book is organized in a logical manner, discussing bone physiology, grafting materials, and ridge preservation techniques in Part I. Bone harvesting techniques are discussed in Part II, and Part III covers all aspects of bone grafting. The book's final chapter deals with the future of biologic growth factors and platelet-rich plasma.

Part I consists of four chapters. Extensive discussion and appropriate illustrations discuss all aspects of bone metabolism, macroscopic and microscopic structure of bone, and bone modeling and remodeling. The author further discusses all aspects of bone-grafting materials including autogenous, allografts, alloplasts, xenografts, and tissue-engineered materials. The principle objectives of the barrier membrane technique are thoroughly covered, along with an in-depth discussion

of barrier membrane therapy. The final chapter in this section discusses ridge preservation techniques, the rationale for selecting the appropriate grafting material, and the importance of preservation in the esthetic zone.

Part II provides an in-depth discussion of all aspects of harvesting bone from the ramus, mandibular symphysis, and the tibia. Each chapter in this section discusses the surgical technique, armamentaria, and complications associated with the various donor sites. Dr. Garg provides particularly useful information about the amount and type of bone harvested from each donor site. For example, he states the bone harvested from the ramus is cortical in nature, yields a rectangular piece of bone approximately 4 mm thick, 3 cm or more in length, and up to 1 cm in height. Bone harvested from the mandibular symphysis yields widths ranging from 4 to 7 mm, length 15 to 20 mm, and height up to 10 mm. Tibia grafts performed by the oral maxillofacial surgeon and resident yield 20 to 40 cm^3 of noncompressed cancellous bone from the marrow space. Excellent diagrams, clinical photographs, and radiographs support all chapters in Part II.

In a logical sequence of therapy, bone-grafting techniques are presented in Part III. All aspects of grafting of the maxillary sinus in preparation for implant placement are discussed in the first chapter of Part III. Sinus anatomy is thoroughly covered, reinforced by clinical photographs of both cadavers and patients. Sinus-grafting technique is presented in a logical sequence from flap reflection to graft placement. The rationale for selecting appropriate graft materials, preoperative evaluation, surgical technique, and postoperative complications are presented in an expert manner. Clinical cases exhibited in this chapter clearly reinforce the important concepts conveyed by the author.

The next chapter in Part III presents all aspects of augmentation and grafting the maxillary anterior alveolar ridges. The author discusses the use of allogeneic block grafts, corticocancellous block grafts, particulate grafts, indications for membrane use, postoperative care, and complications.

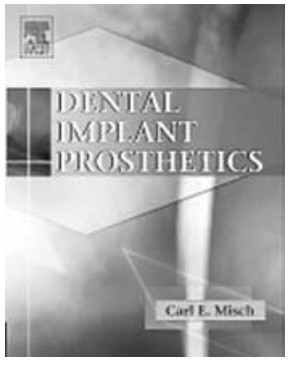
The final chapter in Part III presents all aspects of subnasal elevation and bone augmentation.

The author covers future directions of therapy in Part IV. Promising research covering biologic growth factors provides the reader with a look at future possibilities to enhance grafting procedures. Platelet-derived growth factor, insulin-like growth factor, transforming growth factor-beta, and platelet-rich plasma are thoroughly discussed. The final section of this chapter covers bone morphogenetic proteins, recombinant human BMP-2, and recombinant BMP-7/Osteogenic protein-1.

The text binding and paper stock are excellent. The quality of the abundant color figures and illustrations are superior and compliment and reinforce the important topics covered in this textbook.

The author's goal was to enhance the knowledge of the experienced clinician, periodontist, oral maxillofacial surgeon, and respective graduate students in understanding the biologic and technical aspects of bone structure and bone metabolism and the process of osseointegration. He has accomplished those goals and much more. This text is an excellent resource for the experienced clinician and for graduate residents in periodontics and oral maxillofacial surgery interested in increasing their knowledge of bone biology, bone grafting, barrier membranes, and implantology.

Daniel A. Assad, DDS
Associate Professor, Postgraduate Periodontics Program Director, University of Nebraska Medical Center College of Dentistry, Lincoln, NE



Dental Implant Prosthetics

Carl E. Misch. Mosby, Inc., St. Louis, 2005: ISBN 0-323-01955-2 (656 pages, 975 illustrations (mostly color); price: $125; hardcover)

This textbook appears to have been written for teaching purposes and as a reference source for implant dentistry. The author, Dr. Carl E. Misch, famous for his research, publication, and