



**Edition:** 1st Edition 2009  
**pages:** 240  
**Images:** 409  
**Cover:** Hardcover  
**ISBN:** 978-0-86715-477-1  
**Published:** September 2009

**Quintessence Publishing Company, Ltd.**

📍 Grafton Road  
KT3 3AB New Malden, Surrey  
United Kingdom  
☎ +44 (0)20 8949 6087  
📠 +44 (0)20 8336 1484  
✉ [info@quintpub.co.uk](mailto:info@quintpub.co.uk)  
🌐 <https://www.quintessence-publishing.com/gbr/en>

## Book information

**Authors:** Philippe B. Tardieu / Alan L. Rosenfeld  
**Title:** The Art of Computer-Guided Implantology  
**Short text:**

This book is the first to introduce a radiographic paradigm shift in implant therapy that provides an accurate method for transferring the patient's prosthetic needs into a resin-based surgical template designed to guide implant placement. Computed tomography (CT) was introduced to the dental profession in 1987 to facilitate radiographic examination of the jaws and implant treatment planning. It allowed the dental profession for the first time to evaluate anatomic structures and the effects of postextraction resorptive patterns with submillimeter accuracy. Because there was no mechanism for introducing prosthetic information into the CT dataset, however, the value of this technology was limited to diagnostic applications. In 1999, real-time 2D-3D interactive imaging software was developed, allowing the prosthetic outcome to be transferred to the CT dataset with the use of an appropriate scanning appliance. This technologic breakthrough facilitates a direct link between anatomic interpretation, treatment planning, and precise surgical execution. Through computer-guided implantology, preoperative rather than intraoperative planning drives treatment decisions. This book has been organized to allow the clinician an opportunity both to survey the field as a broad overview and to implement the critical-thinking skills necessary to navigate the complexities of patient treatment. While the technology in this field will undoubtedly continue to advance, the fundamental principles presented in these 11 chapters will remain the cornerstone of patient care. All of the contributors share a common belief that technology is not a substitute for clinical experience and wise judgment and that the implementation of computer-guided implantology should be predicated on the unique experiences of each clinician and not what is therapeutically fashionable at the moment.

### Contents

Chapter 01. Introduction  
Chapter 02. Imaging Techniques and Diagnostics  
Chapter 03. The Dynamic Nature of SimPlant Software  
Chapter 04. Scanning Appliances and Virtual Teeth  
Chapter 05. Axial Image Conversion and Segmentation  
Chapter 06. SurgiGuide Options  
Chapter 07. Computer-Guided Implant Treatment Pathway  
Chapter 08. Clinical Cases  
Chapter 09. SAFE System and Immediate Smile  
Chapter 10. Advanced Case Planning with SimPlant  
Chapter 11. Oral-Maxillofacial Surgery Software

### Contributors

Ellen Dhoore • Scott D. Ganz • George A. Mandelaris • Richard Mecall • Veerle Pattijn • Benoît L. Philippe • R. Anthony Reynolds • Alan L. Rosenfeld

**Categories:** Esthetic Dentistry, Implantology, Oral Surgery