Buch-Information

Autor(en): Perrotti, Giovanna / Testori, Tiziano / Politi, Massimiliano

Titel: 3D Imaging and Dentistry

Untertitel: From Multiplanar Cephalometry to Guided Navigation in Implantology

Kurztext:
For those who are finding the transition from 2D radiography to 3D CBCT confusing, this text explains the use of volumetric imaging in clinical practice and details the indications for its use in every field of dentistry. Ample direction is given on proper image processing and how to read CBCT scans, including a comprehensive anatomical atlas. In addition, the authors explain how to compile volumetric 3D reconstructions and use them in computer simulation to explain surgical phases. The authors focus on topics of greatest clinical interest, including cephalometric diagnostics and a novel approach to esthetic analysis, analysis of the anatomical airway for sleep apnea, a comprehensive review of the maxillary sinus and the clinical surgeries related to it, and treatment planning for guided implant surgery.

Authors
Giovanna Perrotti, DMD, is head of the Orthodontics and Children’s Dentistry Unit at IRCCS Istituto Ortopedico Galeazzi in Milan, Italy. She teaches advanced courses on oral implantology as well as contemporary rehabilitation and reconstructive jaw therapy at the University of Milan. Dr Perrotti has a degree in dentistry and dental prosthetics with a specialization in orthognatodontics. Author of scientific papers on orthodontics and dental diagnostics, she is a member of the editorial boards of Quintessenza Internazionale, International Journal of Oral & Maxillofacial Implants, Dental Cadmos, and CAD-CAM Digital Dentistry and is the coauthor of two multimedia collections for Med Tutor Odontoatria (Utet Scienze Mediche, 2008 and 2014).

Prof Tiziano Testori, MD, DDS, FICD, is a fellow in oral and implant surgery at the University of Miami, as well as professor at the Faculty of Dentistry and Dental Prosthetics and head of the Implantology and Oral Rehabilitation Unit at the Dental Clinic in the IRCCS Istituto Ortopedico Galeazzi in Milan, Italy. He received both his degree in medicine (1981) and his PhDs in odontostomatology (1984) and orthognatodontics (1986) from the University of Milan. From 2007 to 2008, Dr Testori was the president of SICOI and has since remained an active member as well as a member of the European Board of Oral Surgery (EF OSS). He serves on the editorial boards for the European Journal of Oral Implantology, International Journal of Oral and Maxillofacial Implants, and the International Journal of Periodontics and Restorative Dentistry and is the author
of several books and 92 papers indexed in PubMed.

Dr Massimiliano Politi, DMD, is an attending physician at the Orthognatodontics Unit of the Dental Clinic of the IRCCS Istituto Ortopedico Galeazzi in Milan, Italy and is completing a PhD in orthodontics from the University of Milan. Dr Politi devotes most of his time to research in the field of 3D diagnostics and maintains a private practice limited to orthodontics.

Co-Authors: Francesca Bianchi • Massimo del Fabbro • Giulia Ferrara • Silvia Ferrario • Luca Fumagalli • Fabio Galli • Francesco Grecchi • Giuliana Lorè • Mario Mantovani • Joanna Katarzyna Nowakowska • Andrea Parenti • Lorenzo Pignataro • Grazia Pozzi • Marco Scarpelli • Silvio Tascheri • Alberto Zerbi

Contents:

Chapter 01. Basic Principles for the Use of CBCT in Dentistry
• Principles of Digital Radiology
• Computed Tomography
• Image Postprocessing

Chapter 02. Changes in Basal Bones from Infancy to Senescence
• Growth and Development of Facial Bones in 3D Images
• Theories on Control of Craniofacial Growth
• Bone Resorption and Atrophy of the Basal Bone
• Implant Therapy and Craniofacial Growth

Chapter 03. Systematic CBCT Analysis of the Maxilla and Mandible
• Radiologic and Clinical Anatomy of the Maxilla
• Radiologic and Clinical Anatomy of the Mandible
• Clinical Examples

Chapter 04. Evolution of Cephalometry
• Concepts of Cephalometry
• Dysgnathic Presentations in 3D

Chapter 05. Atlas of Cephalometric Landmarks
• Introduction to Cephalometry
• Atlas of Skeletal Landmarks
• Atlas of Soft Tissue Landmarks

Chapter 06. 3D Analysis of Soft Tissues
• Esthetic Analysis of Soft Tissues Using 3D Cephalometry
• Diagnostic 3D Analysis of Soft Tissues with Multiplanar Cephalometric Analysis: Clinical Cases

Chapter 07. 3D Analysis of the Temporomandibular Joint
• Anatomy and Pathology of the TMJ
• Radiologic Examinations of the TMJ

Chapter 08. 3D Analysis of Airway Spaces
• Obstructive Sleep Apnea
• Risk Factors for Obstruction of the Airways and Development of OSA

Chapter 09. 3D Analysis of Impacted Teeth
• Impaction of the Permanent Maxillary Canine
• 3D Imaging and Diagnosis of Impacted Mandibular Third Molars

Chapter 10. CBCT in Periodontology

Chapter 11. CBCT in Endodontics
• Imaging in Endodontics
• Cone Beam Computed Tomography in Endodontics

• Analysis of Guided-Surgery Systems

Chapter 13 CBCT: Medicolegal Issues

Fachgebiet(e):
Fachübergreifend, Implantologie, Röntgenologie und Fotografie, Zahnheilkunde allgemein