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Autore	Tel Alessandro
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Altri autori (Persone)	RobionyMassimo
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Nota di contenuto	Preface -- SECTION 1: TECHNOLOGICAL UPDATES IN CRANIO-MAXILLO-FACIAL SURGERY. - Chapter 1. Software used for virtual surgical planning -- chapter 2. Dedicated acquisition protocols in radiology for virtual surgical planning and 3D Printing -- Chapter 3. Overview of 3D printing technologies in cranio-maxillo-facial surgery -- Chapter 4. Virtual Surgical Planning and 3D Printing at the Point-of-Care Lab for Cranio-maxillo-facial Surgery -- Chapter 5. Regulation perspectives for Point-of-Care lab in Cranio-Maxillo-Facial surgery -- Chapter 6. Personalized Implant Design in Cranio-Maxillo-Facial Surgery -- Chapter 7. Augmented reality in Cranio-Maxillo-Facial Surgery -- Chapter 8. Artificial intelligence in cranio-maxillo-facial surgery -- SECTION 2: ATLAS OF PROCEDURES IN ORO-CRANIO-MAXILLO-FACIAL SURGERY -- Chapter 9. Applications of VSP for customized subperiosteal implants for the rehabilitation of the atrophic jaws -- Chapter 10. Principles of cranial reconstruction -- Chapter 11. Personalized Cranial Implants: Pioneering Techniques with Additive

Manufacturing -- Chapter 12. Virtual planning in frontal sinus and anterior skullbase -- Chapter 13. Virtual surgical planning in craniofacial -- Chapter 14. Introduction to Virtual Planning in Orbital Region and Applications in Orbital Trauma -- Chapter 15. Virtual Surgical Planning in Orbital Oncology -- Chapter 16. Computer-guided orthognathic surgery: state of the art and innovation -- Chapter 17. Applications of VSP in orthognathic surgery -- Chapter 18. Application of VSP in temporomandibular joint surgery -- Chapter 19. Virtual planning and 3D Printing in midfacial trauma -- Chapter 20. Virtual surgical planning in midfacial oncology -- Chapter 21. Virtual surgical planning in midfacial reconstruction -- Chapter 22. Virtual planning and 3D Printing in mandibular fractures -- Chapter 23. Virtual surgical planning in mandibular oncology -- Chapter 24. Virtual surgical planning in mandibular reconstruction -- Chapter 25. Full-face cranio-maxillo-facial surgery procedures -- Chapter 26. Comprehensive Guide and Atlas to Virtual Surgical Planning in Face Transplantation -- SECTION 3: CONCLUSIVE REMARKS -- Chapter 27. Medical 3D printing: a fruitful and impactful field for collaboration and interdisciplinarity.

Sommario/riassunto

This book is the first comprehensive atlas dedicated to virtual surgical planning and 3D printing in cranio-maxillo-facial surgery. As the field rapidly evolves, this atlas serves as an essential resource, offering a unified learning platform with detailed examples of virtual surgical planning across various anatomical regions. Each clinical case is meticulously categorized, guiding readers through the intricacies of radiological acquisition protocols, computational design methods, and surgical planning strategies, culminating in 3D printing applications and surgical outcomes. Key concepts explored include point-of-care 3D printing, engineering principles, and the integration of artificial intelligence in surgical planning. Esteemed authors and leading opinion leaders delve into these topics, providing insights into the regulatory aspects crucial for point-of-care laboratories. These labs are increasingly vital in hospitals worldwide, showcasing the potential for advanced case studies using cutting-edge medical software. This atlas is indispensable for a diverse audience, including students, postdoctoral fellows, cranio-maxillo-facial surgeons, neurosurgeons, ENT surgeons, plastic surgeons, bioengineers, clinical engineers, and industry representatives. It not only equips medical professionals with the skills necessary for modern surgical planning but also offers guidance to companies involved in designing and manufacturing medical devices.
