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Titolo	3D Printing in Bone Surgery // edited by Carmine Zoccali, Pietro Ruggieri, Francesco Benazzo
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Nota di contenuto	Chapter 1) Indications: Didactical Use of 3D Printing, Surgical Didactical Use, Surgical Planning, Patient Information, Custom-Made Prosthesis, Spacer and Template, External Prosthesis, Cast -- Chapter 2) The Rationale of 3D Printing in Oncological Orthopaedics -- Chapter 3) The 3D Printing Production Procedure -- Chapter 4) The Engineer's Point of View -- Chapter 5) 3D Pelvis/Hip Prosthesis -- Chapter 6) Custom Reconstruction Around the Knee -- Chapter 7) When the Bone Is Not Enough: The Role of Custom Made Implants in Cup Revision Surgery -- Chapter 8) 3D Scapula/Shoulder Prosthesis -- Chapter 9) 3D Vertebral Prosthesis -- Chapter 10) 3D Skull Prosthesis -- Chapter 11) 3D Facial Prosthesis -- Chapter 12) 3D Carpal (Hand) Prosthesis -- Chapter 13) 3D Tarsal (Foot) Prosthesis -- Chapter 14) The Composite Custom-Made Prosthesis -- Chapter 15) 3D-Printed Custom-Made Instruments

Sommario/riassunto

Filling a gap in the literature, this is the first book to comprehensively discuss 3D printing applied to bone surgery. It provides both the scientific basics and practical applications, with a special focus on 3D-printed, custom-made titanium prostheses (3DPCMP) used for bone reconstruction following tumor resection. Initially applied to pelvic and scapular prostheses – because of their of highly complex anatomy – this technology is increasingly being adopted in other fields of orthopedics, such as limb surgery, traumatology and degenerative diseases. Throughout the book, experts from various fields share their knowledge, describing 3D printing applied to the reconstruction of different bone segments, reviewing each application and comparing it with traditional reconstruction. They also present real-world case studies from their clinical practice. Uniquely responding to the growing interest surrounding 3D printing for bone reconstruction, this book is invaluable for orthopedic, neuro- , head and neck as well as maxillofacial surgeons wishing to gain insights into this new and promising field.