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Titolo	Regenerative Strategies for Maxillary and Mandibular Reconstruction [[electronic resource] ] : A Practical Guide // edited by James C. Melville, Jonathan W. Shum, Simon Young, Mark E. Wong
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Nota di contenuto	Regenerative Medicine and the role of tissue engineering in Maxillomandibular reconstruction: Principles of Regenerative Medicine of the Maxillomandibular Region -- Traditional use of autogenous and allogeneic grafts in the head and neck reconstruction. Principles of bone grafting -- Reconstruction considerations for the post traumatic, benign tumor, and Oncologic patient -- The role of rh-BMP2 in maxillofacial reconstruction -- The role of autogenous growth factors in regenerative maxillofacial surgery (BMAC, PRP, PRF) -- Techniques of obtaining BMAC, PRP, PRF -- Principles of skin and mucosa regeneration with bioengineering. Surgical Techniques utilizing Biotechnology for regeneration and reconstruction: Principles and technique of Mandibular Reconstruction with in-situ tissue engineering

-- Tissue engineering techniques for atrophic maxilla and mandibles.  
-- Maxillary Sinus Augmentation with tissue engineering -- Maxillary reconstruction with tissue engineering -- Use of tissue engineering in Dental implantology and dental alveolar surgery -- Alveolar Ridge Augmentation (Vertical and Horizontal) with bioengineering. Tissue engineering for Transoral Procedures -- Current modalities of maxillofacial nerve regeneration, reconstruction and repair with allogeneic grafts -- Use of allogeneic dermal substitutes for maxillofacial reconstruction (Alloderm, Acell, Integra, etc). State of the art free vascular transfer for maxillomandibular reconstruction: Principles of Maxillary Reconstruction with vascularized flaps -- Principles of Mandibular Reconstruction with vascularized flaps -- Principles of a Jaw in a day (Free Fibula with immediate implants) -- Role of Microvascular Free flaps combined with tissue engineering. Future trends for maxillomandibular regeneration and reconstruction: The application of 3D printing for reconstruction of maxillofacial defects -- Future of bioengineering for head and neck reconstruction: The customized free flap.

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### Sommario/riassunto

This book is designed as a comprehensive and up-to-date instructional guide to the strategies employed for regeneration of the maxillomandibular region, with emphasis on allogeneic and tissue engineering principles. Readers will find information on indications and contraindications for procedures, pertinent anatomy, surgical techniques, postoperative management, and management of complications. Current surgical techniques utilizing biotechnology for regeneration and reconstruction are described in depth, with explanation of their benefits in minimizing patient morbidity. In addition, state of the art free vascular transfer for maxillary and mandibular reconstruction is extensively discussed, with a particular focus on indications and step-by-step technique. The authors are well-known experts in their field who are keen to share their extensive experience and preferred approaches. The book is intended for all oral and maxillofacial surgeons, head and neck surgeons, and plastic and reconstruction surgeons who wish to increase their knowledge on the latest modalities of maxillary and mandibular reconstruction.

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