



Trauma Plating Systems

Biomechanical, Material, Biological, and Clinical Aspects

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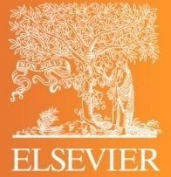
AUDIENCE

Various disciplines of audiences who are dealing with trauma plating system and fixation such as orthopedic surgeons, trauma implant manufacturers, biomechanical researchers, biomaterial researchers, and all biomedical or medical students and residents in different levels of education.

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A systematic assessment of biomechanical, material, biological, and clinical aspects of existing plating systems, and related methods applicable to future orthopedic implant development

KEY FEATURES

- Smooth writing style for effective following, fast reading, and easy accessibility of the content.
- Detailed and insight reviews, discussions, and new ideas in evaluation methods and design conception.
- Disclosing of a novel conceptual plating system (Advance Healing Fixation System—AHealFS) with advanced biomechanical and clinical benefits in various stages of healing period potential to bring an interesting science breakthrough in fixation of bone fractures.

DESCRIPTION

Trauma Plating Systems is the first reference and systematic book in the topic of trauma plating system in view of biomechanical, material, biological, and clinical aspects. The effects of these aspects on effectiveness of trauma plating fixation are deeply reviewed, discussed, and challenged from which promising evaluation and development concepts are explored.

This book is divided into five sections: Section I covers general concepts of biomechanical, material, biological, and clinical aspects. Then it provides fundamentals of trauma plating systems, principles of biomechanical evaluation methods, and biomechanics of plating fixation in Section II. Section III reviews current metallic materials with their advantages and disadvantages in plating fixation of bone fractures and new promising materials with their potential benefits to enhance the effectiveness of plating fixation. Section IV represents currently concerned biomechanical-clinical challenges of plating fixation for various bone fractures, and Section V presents current and new development concepts of this type of trauma implants. This book is an accessible and easy usable textbook for various disciplines of audiences who are dealing with trauma plating system and fixation such as orthopedic surgeons, trauma implant manufacturers, biomechanical researchers, biomaterial researchers, and all biomedical or medical students and residents in different levels of education.

Author has been diligent in both engineering and research environments in terms of research, testing, analysis, validation, verification, clinical studies, and technical writing. His main interest and effort is to integrate biomechanical, material, biological, and clinical requirements of orthopedic implants for creation of novel design conception in this industry. He has developed the website <http://orthoimplant-development.com/> for further communication in development of orthopedic implants.