CRANIOMAXILLOFACIAL BUTTRESSES—ANATOMY AND OPERATIVE REPAIR


Contemporary treatment for facial trauma emphasizes the facial buttresses in understanding and managing such injuries. In Craniomaxillofacial Buttresses—Anatomy and Operative Repair, Richard Pollock successfully provides the detailed evidence supporting the buttress principles as essential to facial trauma care. This succinctly written and well-illustrated text offers a very nice review of the buttress concept and relates these concepts to fracture care.

This text takes the reader from the history and physics of the buttress through to the application of those buttress principles in the surgical management of facial fractures. In the first chapter, the author draws a parallel between the buttresses of architectural history and those of the craniofacial skeleton while also noting the contributions of anatomists who advanced the buttress concepts. The second chapter delves into the physics and biomechanics of the facial skeleton where the authors detail the seminal research methods and landmark articles that have led to our current understanding of facial biomechanics. The studies detail the distribution of load forces through the facial skeleton and the importance of thick buttresses of bone that transmit those forces.

In the third chapter, the book begins to address the clinical relevance of the facial buttresses in fracture management. The author traces the development of facial fracture repair from the earliest techniques to the current algorithm of repair emphasizing the various fracture patterns. With the subsequent chapters, Pollock and his contributors take the reader through the anatomic levels of facial skeleton outlining facial injury patterns and appropriate management. Each clinical chapter follows a common outline. The chapters introduce the important anatomic concepts of the region, the clinical and radiologic assessment of the injuries and an algorithm for fracture repair. Each chapter also includes clinical cases intended to reinforce the key management concepts. A chapter on the palate and lower midface emphasizes the sagittal and parasagittal midface buttresses. There is also a chapter on the mandible detailing its tubular structure and unique biomechanics. The book contains detailed chapters on fractures of the cranial vault, the medial orbital frame and central midface, lateral orbital frame, and panfacial injuries. These chapters highlight proper reduction and fixation with detailed drawings or photographs.

All chapters in this book are meticulously researched and referenced with a detailed bibliography. This level of detail provides a direct route to the primary source material, allowing the reader to investigate important concepts in much greater detail.

The book contains a wealth of clinical hints and surgical pearls that were gained through the extensive experiences of its authors. However, many of these important pearls can be hidden within the case examples, challenging the reader to read beyond the section headings to take full advantage of the book’s educational value.

Craniomaxillofacial Buttresses is not a surgical atlas or a comprehensive text on facial trauma. It is, however, a well-written, readable book on the anatomy of facial buttresses and their relevance in managing facial fractures. The book will be a valuable addition to the educational library of training programs and of those with an interest in facial trauma.

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In Part 1, key surgical anatomy provides an anatomical framework for assessment and operative planning. In Part 2, clinical presentation, radiographic assessment, and operative repair precede brief comments regarding collateral damage. This repetitive format provides the reader with clinical continuity, from chapter to chapter, regardless of anatomic site. A generous number of algorithms, medical art, and photographs enrich the text, followed by exemplary cases.