

Rib Fixation for the Orthopaedic Surgeon

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This video discusses the indications for surgical management of rib fractures, demonstrates the technique for surgical exposure of the chest wall for plate fixation of flail chest, and reviews outcomes from the current literature. The case presentation of a patient who underwent surgical fixation for an acute flail chest injury sustained after blunt chest trauma is reviewed. During this case presentation, patient positioning and operating room set up (including anesthesia requirements and pulmonary considerations) required for adequate surgical exposure are highlighted. Next, relevant anatomy and critical landmarks to identify during multiple surgical approaches to the ribs are discussed, alternating between the case presentation and a cadaver model dissection. Finally, the technique for placing plates and reducing rib fractures is demonstrated. Although the concept of rib fixation is new in the world of orthopaedics, the principles of fracture fixation apply and, therefore, will be described as they pertain to rib stabilization. The outcomes from the current literature are discussed. This video will help orthopaedic surgeons better identify patients who would benefit from the surgical management of chest wall injuries and understand how to surgically stabilize rib fractures.