Background: This clinical case report describes a patient referred to physical therapy for treatment of a shoulder strain. Physical therapy diagnosed the patient with a near-complete tear of his pectoralis major muscle that required surgical repair. A 29 year old male Active Duty Army soldier serving in Iraq had a sudden onset of right shoulder pain during the concentric motion of a bench press. The patient described a “pop” with immediate pain and weakness. The patient was seen by a physician and diagnosed with a shoulder strain. He was prescribed cyclobenzaprine (Flexeril) and Percocet. The physical therapy referral prescribed a sling and exercise instruction. At the time of injury the patient was taking a daily multi-vitamin and whey protein; he denied use of steroids or other illicit substances. He was well conditioned and had been lifting weights for 3 months. The patient did not do a warm-up set prior to attempting 315 lbs on a flat bench. Pain and swelling were noted initially; ecchymosis and a three-finger defect in the axillary contour were apparent 48 hours post-injury. Manual muscle testing of the pectoralis major muscle was 1/5. Based on the physical therapy findings, the patient was referred to an orthopaedic surgeon for management of a pectoralis major muscle tear. He was placed in a sling, and treated with cryotherapy and a modified Codman’s exercise. Medical evacuation out of the theatre of operations was initiated. Differential Diagnosis: Possible injuries include glenohumeral joint subluxation, labral tear, pectoralis minor muscle strain versus tear, and/or pectoralis major muscle strain versus tear. Treatment: The physical therapist discontinued the patient’s Percocet and prescribed naproxen, as his pain was well-managed but significant swelling remained. While waiting for medical evacuation, the patient continued daily physical therapy consisting of cryotherapy, a modified Codman’s exercise, and active elbow, wrist, and hand range of motion. Five days after initial injury, the patient was evacuated out of Iraq to Landstuhl, Germany for definitive care. Magnetic resonance imaging revealed a near-complete tear of the sternal portion of the right pectoralis major muscle at the musculotendinous junction. The patient underwent surgical repair of his pectoralis major 15 days after initial injury. Post-operative care involved a sling for 6 weeks, then rehabilitation following a post-operative protocol. One month post-operatively, the patient had 170 degrees flexion and 40 degrees external rotation active range of motion. He progressed faster than the post-operative protocol guidelines and returned to limited duty in theatre. Three months post-operatively he returned to full duty, working in explosive ordnance disposal (bomb squad). Six months after surgery the patient could perform 50 push-ups. He used 25-35 lb dumbbells for workouts, avoiding only the chest fly exercise due to post-workout soreness associated with this exercise. Uniqueness: There is often controversy surrounding direct access to physical therapy. Opponents of direct access state that physical therapists are not qualified and are not able to diagnose and manage musculoskeletal conditions in a primary care setting. It was the physical therapist who correctly diagnosed the patient’s pectoralis major muscle tear. Physical therapists are qualified as primary care extenders to manage musculoskeletal injuries. This case presents the unique challenges involved in managing musculoskeletal injuries in a combat environment, to include medically evacuating the patient out of theatre for diagnostic imaging and definitive care. Conclusions: Successful management of this patient depended upon a thorough history and clinical examination performed by the physical therapist. Following the physician’s diagnosis and treatment plan would likely have resulted in suboptimal outcomes, as the literature favors surgical repair of pectoralis major muscle tears. Word Count: 590