

## **Chest Wall Injury — Weightlifting**

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### **HISTORY:**

This is a 21-year-old male seen for chest pain which started 2 years prior to consult. He was increasing weightlifting dips, bench presses, and butterfly workouts, when he started having pain. He was feeling sharp pain over the manubriosternal junction, 6/10 in intensity. The pain was aggravated by bench presses, butterfly workouts and dips, as above, and lifting weights above his head. The pain was alleviated by rest but took several hours to go away each time. He studies at the Culinary Institute of America in New York. When he was in the kitchen lifting 50 pounds of bacon overhead, or taking off an overhead shelf, he had pain 6-7/10 in intensity. Carrying tubs of food in front of him made his pain increase. Pulling motions were more painful than pushing motions. He noted pain in the mornings when he woke up if he slept on his right side. He found that if he took his chest out and took a deep breath, the area of pain would "pop" and he would get some relief.

### **PHYSICAL EXAMINATION:**

Normal shoulder range of motion exam. He had pain over the manubriosternal junction on resisted forward flexion and resisted internal rotation of his left shoulder. He was point tender over the manubriosternal junction, and there was a tender, palpable prominence over this location.

### **DIFFERENTIAL DIAGNOSES:**

1. Costochondritis
2. Sternoclavicular joint injury
3. Pectoralis strain
4. Manubriosternal injury

### **TEST AND RESULTS:**

X-rays showed normal cardiomedial silhouette and pulmonary vascularity, no focal opacity in the lung parenchyma, no pleural effusion or pneumothorax, and no significant chest wall abnormality.

### **FINAL/WORKING DIAGNOSIS:**

Manubriosternal injury

### **TREATMENT AND OUTCOMES:**

We prescribed ibuprofen to take as needed for pain, and a Flector patch to use as needed. We referred him to Physical Therapy, where he underwent dynamic strengthening and a stretching program. He was placed on a foam roller for 5 minutes, then instructed on strain-counterstrain techniques for the costochondral junctions and ribs. The patient was instructed to do exercises twice per day. Modalities and manual techniques were employed as well, and the patient was eventually discharged on a home exercise program. Six weeks later, the patient had no more chest wall pain, even after participating in yoga and weightlifting once again.