STOVER PHYSICAL THERAPY

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NEWS AND NOTES

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Manual Therapy Treatment Effectiveness for Shoulder Impingement

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A randomized controlled trial by Bang and Deyle in 2000 compared the effectiveness of two physical therapy approaches to treat shoulder impingement. The study compared a traditional exercise program with and without manual techniques.

Fifty-two subjects were randomized into two groups. The subjects attended physical therapy sessions twice weekly for three weeks, with a 7th visit for a re-evaluation. The outcome measurements used in the study included a functional assessment questionnaire, visual analog scale for pain, and an electric dynamometer for isometric strength. The functional assessment questionnaire and the visual analog scale were administered in the beginning and 60 days later (1 month after conclusion of treatment).

The manual therapy group began with instruction in a stretching program, which included two passive stretches. This group received manual treatment as needed to the shoulder, cervical, or thoracic spine, depending on assessment results. During the second visit, 6 strengthening exercises were initiated. The group continued to perform the exercises and receive manual therapy treatment in the clinic, while performing the stretches at home

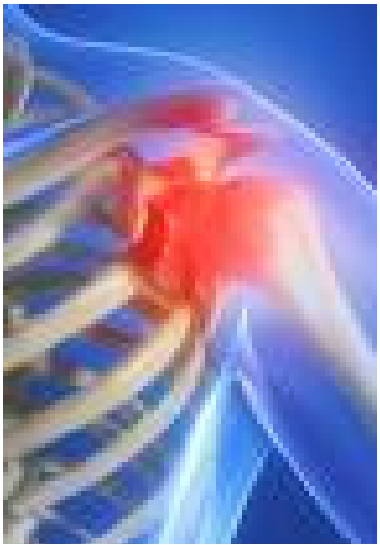
The exercise group began with the same instruction in a stretching program. The group began the same strengthening exercises on the second visit, and continued to perform all exercises in the clinic. The subjects were encouraged to continue the stretching daily and the strengthening program 3-times weekly on their own. They received instruction and compliance logs that were examined at the 60-day follow-up visit.

Results show greater strength, improved function, and less pain in the manual therapy group (see Table).

This study supports the use of the combination of manual therapy techniques and a traditional exercise program in the treatment of shoulder impingement.

	Manual Therapy Group	*Exercise Group*
Functional Outcome	35% improvement	17% improvement
Pain	70% less pain	35% less pain
Strength	16% increased strength	No significant strength gain

Bang, M., & Deyle, G. (2000). Comparison of supervised exercise with and without manual physical therapy for patients with shoulder impingement syndrome. *Journal of Orthopaedic & Sports Physical Therapy, 30(3)*, 126-137.



STOVER PT CLINICAL PEARLS

The quadrant position (see picture above) is an extremely useful manual therapy tool to assess and mobilize the glenohumeral joint, and associated soft tissue structures. The technique is performed by stabilizing the scapula with the clinicians hand, and grasping the olecronon process with the other hand to prevent scapulothoraic movement, and to control glenohumeral joint rotation. Once the patient is in this grasp the clinician will perform small oscillatory mobilizations into restricted end ranges, with varying degrees of vigor. By varying the degree of flexion, abduction, and rotation of the humerus, a skilled clinician can pinpoint tight and/or painful structures and produce positive changes. This position draws the middle and inferior glenohumeral ligaments tight and compresses the subacromial structures against the coracoacromial ligament, acromion process, and posterior superior edge of the glenoid labrum. This can be an invaluable technique to resolve minor primary shoulder impingements, and/or capsular restrictions.

Our Results

At Stover Physical Therapy we see people with a wide range of shoulder conditions from massive rotator cuff repairs to impingement syndrome. Our treatments may include any combination of passive and active range of motion stretches, strengthening exercises, manual techniques, functional training, or pain modalities. We evaluate our treatment results for the shoulder using a standardized instrument called the Disabilities of the Arm, Shoulder, and Hand Questionnaire (DASH). We have logged results from 82 patients with a referring diagnosis of "shoulder pain", many of whom likely had primary impingement syndrome. These patients averaged 12 visits over 5 weeks. The average percent of improvement on the DASH for this group of patients during the course of treatment was 46%. See the table below for the results.