



## USING STATIC PROGRESSIVE STRETCH AND STRESS RELAXATION IN THE TREATMENT OF GLENOHUMERAL JOINT ADHESIVE CAPSULITIS

Full poster presented at the  
Orthopaedic Research Society  
Annual Meeting, March 2000.

Robert Donatelli, Ph.D., P.T.  
Michael W. Hotz, P.T.  
Peter Bonutti, M.D.



The primary goal of therapy in the treatment of adhesive capsulitis is to restore glenohumeral joint ROM.

Static progressive stretch (SPS) has been proven effective in permanently elongating shortened tissues. The JAS Shoulder device provides SPS in the external rotation plane.

This prospective randomized study compared shoulder ROM gains achieved with home therapy using the JAS Shoulder device versus a standard home exercise program. A secondary goal was to determine if a correlation exists between stretching to increase external rotation and achieving gains in elevation ROM.

## Patient Population

- 30 patients with a diagnosis of adhesive capsulitis.
- Passive external rotation less than 45° and elevation less than 150°.

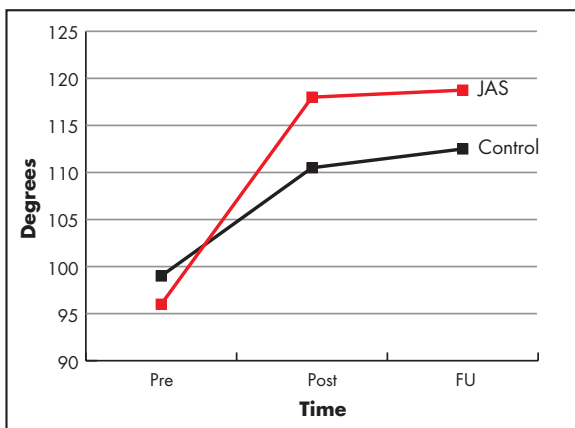
## Methods

- Patients were randomized to two groups.
- Both groups received physical therapy twice a week for three weeks.
- Group 1 was assigned a home exercise program once a day, addressing three planes of motion.
- Group 2 used the JAS Shoulder device once a day, performing a 30-minute SPS session in external rotation only.
- Goniometric measurements were recorded on the first and last therapy visit and at follow-up visits at three and six weeks.

## Results

- External Rotation: Group 2 gained 19°, Group 1 gained 9°.
- Elevation: Group 2 gained 23°, Group 1 gained 11°.
- Elevation gains in Group 2 were significant because the Group 2 protocol involved stretching in external rotation only.
- A ratio of 1:1.5 with respect to gains in external rotation and elevation ROM was seen in the JAS SPS group.
- Patients using the JAS Shoulder device reported less pain during and after treatment.
- Compliance was better for patients using the JAS Shoulder device.
- The JAS Shoulder device was statistically more effective than the home exercise program in improving external rotation and elevation ROM.

### Elevation



### External Rotation

