

Effectiveness of Eccentric Thoracic Stretching on Thoracic Expansion and Exercise Tolerance among Subjects with Rounded Shoulder Posture

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Abstract

Introduction: A rounded shoulder is a protrusion of the acromion of the shoulder joint relative to the centerline of gravity of the body, causing stooped posture along with elevation, protraction, and downward rotation of the scapula, and an increased angle between the lower neck bone and upper spine. The rounded shoulder posture is related to weakness in the middle and lower trapezius muscle and tightness in the anterior serratus muscle, pectoralis minor, and pectoralis major muscles, leading to alteration in pulmonary mechanics and exercise tolerance.

Methods: 30 subjects with rounded shoulder postures were selected as per inclusion criteria. The subjects received eccentric pectoral stretching for a period of 6 weeks. The outcome measures were a six-minute walk test and chest expansion measurement at three levels, namely axillary, nipple and xiphoid process, respectively.

Results: The analysis showed a significant increase in the post-test mean at a p-value less than 0.05 and the six-minute walk test at a p-value less than 0.05.

Conclusion: Eccentric thoracic stretching effectively increases thoracic expansion and exercise tolerance among subjects with rounded shoulder posture.