ROTATOR CUFF REHABILITATION AND PREVENTATION THROUGH RESISTANCE FLEXIBILITY™

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BACKGROUND Rotator cuff rehabilitation can be facilitated by identifying and removing accumulated dense fascia and scar tissue (ADFST) in Cooley's 16 Kinematic Patterns™ of specific myofascial muscle groups of the upper extremity. ADFST in the Infraspinatus is the source/target muscle for rotator cuff dysfunction because it is primarily responsible for the external rotation of the humerus during flexion. Resistance Flexibility™ (RF) involves the use of tension and resistance while self or assisted stretching compared to traditional methods of stretching that simply use elongation. The resistive forces created by naturally tensing and resisting during RF are two to six times the maximum force produced when strength training yet no pain is experienced. Increases in flexibility from RF paralleled proportional increases in the capacity of the muscles to shortening, and the rate and acceleration of shortening.
METHODS A Lafayette dynamometer was used to measure the differences in maximum forces generated during strength training compared to RF training in in the rotator cuff muscles: Infraspinatus, Triceps Brachii, Biceps, and Supraspinatus, in 30 random individuals ranging in age from 16 to 65. A Lafayette goniometer was used to measure increases in ROM, and shortening capacity after three sets of ten repetitions of RF on those muscles over a three consecutive days of training.
RESULTS RF™ results in significant increases in flexibility with parallel capacity increases in the muscles to shorten, and the rate and acceleration of shortening of the Infraspinatus, Triceps Brachii, Biceps, and Supraspinatus resulting in increase in shoulder joint Flexion/Add or Abd/Outward rotation.
CONCLUSIONS The forces necessary to cause significant changes in fascia structures that result in increases in flexibility and strength can be produced with zero pain during self or assisted RF. Removing ADFST also eliminates biomechanical limitations and substitutions and postural deformations.
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REFERENCES
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