

## **ABSTRACT**

**TITLE:** Internal Snapping Hip Improves with Manual Therapy Combined with Hip Rotator Strengthening.

**STUDY DESIGN:** Case Report

**OBJECTIVES:** To describe the application of medical exercise principles, manual therapy and stretching used in physical therapy treatment of a patient with internal snapping hip syndrome.

**BACKGROUND AND PURPOSE:** Internal snapping hip syndrome is characterized by a snapping sound or sensation causing deep pain in the anterior hip. Conservative physical therapy treatment is recommended prior to injection or surgery. Successful treatments using stretching of the iliopsoas muscle, strengthening of the hip rotator musculature and manual therapy procedures have been documented and a strengthening protocol has been proposed. However, this protocol is lacking important clinical decision-making details limiting its clinical usefulness.

**CASE DESCRIPTION:** The following is a case report of a 30-year-old recreational athlete diagnosed with internal snapping hip syndrome treated with hip rotator strengthening using a medical exercise therapy approach, manual therapy and lower extremity stretching. Initial measures include numeric pain rating scale, Lower Extremity Functional Scale, hand held dynamometry, Functional Movement Screen and hop testing (single hop, x-hop and triple hop).

**OUTCOMES:** Improvements were noted in NPRS, hip strength, FMS and hop testing.

**DISCUSSION:** This paper confirms the previously reported usefulness of combining manual therapy with hip strengthening and stretching to conservatively treat internal snapping hip syndrome. Using the clinical fatigue test to determine appropriate therapeutic resistance provides needed clinical reasoning details and may result in significant strength gains. Soft tissue mobilization to the iliacus muscle may be a means of decreasing the mechanical snap by allowing the iliopsoas tendon to pass over it more smoothly.