## Systematic Review of Nondrug, Nonsurgical Treatment of Shoulder Conditions

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ABSTRACT

Objective: The purpose of this review was to evaluate the effectiveness of conservative nondrug, nonsurgical interventions, either alone or in combination, for conditions of the shoulder.

Methods: The review was conducted from March 2016 to November 2016 in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), and was registered with PROSPERO. Eligibility criteria included randomized controlled trials (RCTs), systematic reviews, or meta-analyses studying adult patients with a shoulder diagnosis. Interventions qualified if they did not involve prescription medication or surgical procedures, although these could be used in the comparison group or groups. At least 2 independent reviewers assessed the quality of each study using the Scottish Intercollegiate Guidelines Network checklists. Shoulder conditions addressed were shoulder impingement syndrome (SIS), rotator cuff-associated disorders (RCs), adhesive capsulitis (AC), and nonspecific shoulder pain.

Results: Twenty-five systematic reviews and 44 RCTs met inclusion criteria. Low- to moderate-quality evidence supported the use of manual therapies for all 4 shoulder conditions. Exercise, particularly combined with physical therapy protocols, was beneficial for SIS and AC. For SIS, moderate evidence supported several passive modalities. For RC, physical therapy protocols were found beneficial but not superior to surgery in the long term. Moderate evidence supported extracorporeal shockwave therapy for calcific tendinitis RC. Low-level laser was the only modality for which there was moderate evidence supporting its use for all 4 conditions.

Conclusion: The findings of this literature review may help inform practitioners who use conservative methods (eg, doctors of chiropractic, physical therapists, and other manual therapists) regarding the levels of evidence for modalities used for common shoulder conditions. (J Manipulative Physiol Ther 2017;xx:-1-27)