

*Following rotator cuff repair, does aquatic therapy, individualized treatment, or early exercise progression improve range of motion or self-reported outcomes more than traditional rehabilitation?*

To answer this question, we performed a comprehensive search of the PubMed database (June 2010) for clinical trials that addressed this specific research question.

Three studies met the criteria for inclusion in this review, comparing early progression of exercise to traditional treatment (1), the addition of aquatic therapy to standard exercise (2), and an individualized, supervised program to standardized home exercise. RCTs evaluating rehabilitation for rotator cuff repair were limited, thus a feasibility study was included (2).

Klintberg et al compared a 24 wk progressive exercise program to a traditional program among a small sample of 14 adults (1). The progressive group completed an accelerated version of a rehabilitation protocol that emphasized specific activation of the rotator cuff, aquatic therapy, and home and supervised exercises. Both groups showed significant

improvement in pain and function, with minimal differences between the groups.

Brady et al conducted a feasibility study on the effectiveness of 12 wks of aquatic therapy in 18 adults (2). In addition to standard land-based exercises, participants completed two aquatic exercise sessions per wk beginning at 10 days post-operative. After the intervention, both groups showed significant increases in health related quality of life and passive range of motion, with no differences between the groups.

Hayes et al compared a standard 6 mo unsupervised home exercise program to individualized physical therapy among 58 adults (3). Both groups showed improvement in self-reported function and passive range of motion, with no significant differences between the groups. While the authors concluded that home exercise is equally effective to supervised therapy, nine participants allocated to home exercise sought physical therapy during the course of the study.

Based on this review, progressive exercise, aquatic therapy, and individualized treatment appear to offer no significant advantage over standard programs or home exercise. However, small sample sizes (1, 2) and non-adherence to protocol (3) limit this conclusion.

*Check with the provider of this newsletter to learn more about exercises appropriate for this condition.*

1. Klintberg IH, Gunnarsson AC, Svantesson U, Styf J, Karlsson J. Early loading in physiotherapy treatment after full-thickness rotator cuff repair: a prospective randomized pilot-study with a two-year follow-up. Clin Rehabil. 2009 Jul;23(7):622-38. Epub 2009 May 29. PubMed PMID: 19482895.
2. Brady B, Redfern J, MacDougal G, Williams J. The addition of aquatic therapy to rehabilitation following surgical rotator cuff repair: a feasibility study. Physiother Res Int. 2008 Sep;13(3):153-61. PubMed PMID: 18548557.
3. Hayes K, Ginn KA, Walton JR, Szomor ZL, Murrell GA. A randomised clinical trial evaluating the efficacy of physiotherapy after rotator cuff repair. Aust J Physiother. 2004;50(2):77-83. PubMed PMID: 15151491.