



Aquatic therapy improves pain, disability, quality of life, body composition and fitness in sedentary adults with chronic low back pain. A controlled clinical trial

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This non-randomized controlled clinical trial compared the effects of aquatic therapy on pain (VAS), disability (Low Back Pain Disability Questionnaire), quality of life (SF-36), body composition and fitness in a group sedentary adults with low back pain, compared to a non-exercise control group. Thirty eight participants completed the study, 21 in the exercise group and 17 in the control group. The exercise group underwent an intensive aquatic exercise program for 8 weeks, 5 times a week, 55-60 min each session, consisting of 10 minutes of warm-up, 15–20 minutes of resistance exercise, 20–25 minutes of aerobic exercise, and 10 minutes of cool-down (stretching exercises). Noodles and cuff devices were used for upper-body and lower-body exercises, respectively. Progression of exercises were made by increasing the resistance, movement velocity and repetitions.

Results: Pain levels measured by VAS improved during rest (3.83 pts), during flexion (4.99 pts) and extension (4.29 pts) of the trunk. These changes were significant compared to control group ($p < .001$). Oswestry Disability index decreased 12.7 pts in the exercise group, in comparison to control (2.2 pts increased). There were also significant improvement in quality of life, weight, body mass index, body fat percentage, sit and reach, curl-ups, handgrip strength, and VO₂max in the aquatic therapy group compared to control.

Take Home Message: Eight weeks of intensive aquatic therapy was effective in significantly decreasing pain at rest and improving trunk strength in patients with low back pain. Participants also reported improvements in quality of life, body composition and fitness level.