

HydroWorx Used to Treat Osteoarthritis Study

Underwater Treadmill Exercise as a Potential Treatment for Adults with Osteoarthritis



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Purpose:

This study examined the **levels of perceived pain and mobility** in osteoarthritis patients after using underwater and land treadmills.

Method:

Nineteen patients, diagnosed with **osteoarthritis in the knee, hip or ankle** participated in the study. All participants were over thirty five years old and had a clinical history of the disease. Each participant performed **three consecutive exercise sessions on a HydroWorx treadmill** and a land treadmill, separating exercise periods by twenty four hours and exercise mode by one week. Each exercise period was twenty minutes and consisted of four, five minute stages. Joint pain was measured immediately before and after each exercise session. "Timed Up and Go" assessed basic mobility and balance before each exercise method and after the third exercise session.

Results:

Results of this study indicated that patients diagnosed with OA may walk on an underwater treadmill at a moderate intensity with **less pain and equivalent energy expenditures**, compared with walking on a land based treadmill at a similar moderate intensity. Patients revealed that **pain was 140% greater during land treadmill exercise** sessions than during underwater treadmill exercise sessions. The "Timed Up and Go" _ which measured the ability for patients to arise from a chair and walk a set distance was **240% greater** after land treadmill exercise sessions.



Conclusion:

Patients diagnosed with osteoarthritis may receive the same **aerobic conditioning with less joint pain and greater improvements in mobility** by utilizing underwater treadmills opposed to land treadmills.



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