

HydroWorx and Running Study

Metabolic-Cost Comparison of Submaximal Land and Aquatic Treadmill Exercise



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Purpose:

This study was conducted in order to evaluate the **metabolic cost of varying aquatic treadmill exercise speed and water-jet resistance** and compare with land treadmill conditions at similar running speeds.

Method:

Fifteen male and female college aged track and field athletes participated in the study. Subjects completed **nine, five minute submaximal underwater treadmill workouts** with jets at varying resistance using a HydroWorx pool.

Results:

Limb loading was reduced significantly in the underwater treadmill sessions. The energy expenditure per stride ranged from **30%- 56% greater** during underwater running than in land running.



Conclusion:

Underwater treadmill training offers viable exercise alternatives to land treadmill running as a way to maintain or improve fitness for injured and healthy individuals.



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