Asimenia G, Paraskevi M, et al. Aquatic Training for Ankle Instability. Foot & Ankle Specialist 2013; 6(5):346-51.

Design: Randomized clinical trial

Purpose of study: to estimate the effectiveness of aquatic training on tests of balance in physically active young adults with functional ankle instability

Reasons not to cite as evidence:

- The patient population consists of physically active college students whose age ranges from 20 to 22, and the external validity of the study would be low even if it were internally valid
- The experimental intervention and comparison intervention are suitable (land vs aquatic training), but the outcome is not suitable because it is measured on a specialized piece of training equipment in which participants are asked to move a cursor to a flashing target by moving a test platform with their feet; this has no clinical relevance for patient-centered outcomes such as ability to resume normal activities or feeling of ankle “giving way”
- The sample size is too small (n=15 in each group) to test the difference between land-based and aquatic ankle training for any effect sizes short of about one standard deviation, which is a very large effect size by usual standards; the aquatic system has not been adequately evaluated with this sample size