

## Arthritis Foundation Aquatic Program (AFAP)

### What is it?

- AFAP is a water exercise program for people with arthritis and related conditions. It was developed jointly by the Arthritis Foundation and the YMCA of the USA.
- AFAP participants meet for 1-hour group classes two or three times per week for 8–12 weeks or on an ongoing basis. Participants engage in stretching, breathing, and light aerobic activities in a warm pool to improve flexibility, joint range of motion, endurance, strength, and well-being.
- Classes are held in community pools and led by health and fitness professionals who have completed an 8–10 hour training session.
- Instructors are trained to accommodate different ability levels.

### Who is it for?

- AFAP is designed for adults with arthritis who are able to participate in low-impact exercise and are comfortable in the water.
- Swimming ability is not required.

### What are the benefits?

- In randomized controlled trials, AFAP has been found to improve joint range of motion, muscle strength, flexibility, and aerobic fitness.
- AFAP participants have also reported improved physical function and quality of life.
- Adhering to the exercise regimen is important for maximizing benefits. Evidence has shown that AFAP participants who attend at least two classes per week report greater improvements in quality of life, physical function, well-being, and mood.

### For More Information

- Arthritis Foundation  
[www.arthritis.org/aquatics.php](http://www.arthritis.org/aquatics.php)
- Centers for Disease Control and Prevention  
[www.cdc.gov/arthritis/interventions/physical\\_activity.htm](http://www.cdc.gov/arthritis/interventions/physical_activity.htm)

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## Contact

## References

Patrick DL, Ramsey SD, Spencer AC, et al. Economic evaluation of aquatic exercise for persons with osteoarthritis. *Medical Care*. 2001;39(5):413–424. PMID: 11317090.

Belza B, Topolski T, Kinne S, et al. Does adherence make a difference? Results from a community-based aquatic exercise program. *Nursing Research*. 2002;51(5):285–291. PMID: 12352776.

Wang TJ, Belza B, Thompson FE, et al. Effects of aquatic exercise on flexibility, strength and aerobic fitness in adults with osteoarthritis of the hip or knee. *Journal of Advanced Nursing*. 2007;57(2):141–152. PMID: 17214750.

## Summary of the Evidence

| Author, Year                                     | Design   | Participants  | Outcomes  |
|--|--|---|---|
| Patrick DL, Ramsey SD, Spencer AC, et al. (2001) | RCT of 12-week program   | 249 older adults with doctor-diagnosed osteoarthritis | ↑ flexibility, strength, aerobic fitness  |
| Belza B, Topolski T, Kinne S, et al. (2002)      | RCT of 20-week program<br>Wait-list control                          | 250 adults with osteoarthritis                        | ↑ physical function, quality of life<br>↑ positive outcomes when ≥ 2 classes attended   |
| Wang TJ, Belza B, Thompson FE, et al. (2007)     | RCT with non-exercise control<br>Outcomes assessed at 6 and 12 weeks | 38 adults with osteoarthritis of the hip or knee      | ↑ knee and hip flexibility<br>↑ strength and aerobic fitness<br>Adherence rate = 81.7%<br>No exercise-related adverse effects |