



# Evidence-Based Community Programs

*Help Your Patients Take Charge*

## Arthritis Foundation Aquatic Program (AFAP)

AFAP is a warm water exercise program for people with arthritis and related conditions. It was developed jointly by the Arthritis Foundation and the YMCA of the USA, and is currently supported by the Aquatic Exercise Association. AFAP is designed to reduce fatigue, pain, and stiffness, and improve mobility, muscle strength, and coordination. **Encourage your patients to sign up for the program at a location nearby.**

### Who is it for?

- AFAP is designed for adults with arthritis, but anyone with joint pain and stiffness may benefit.
- AFAP participants must be able to do low-impact exercise and must be comfortable in the water.
- Swimming ability is not required.

### How is it conducted?

- AFAP is held at community pools and aquatic centers.
- 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 (83–92°F) to improve flexibility, joint range of motion, endurance, strength, and well-being.
- Instructors use a standard program curriculum that can be tailored to accommodate different fitness levels. Activities can range from basic, gentle stretching to more intense endurance-building exercises.

### What are the qualifications of the instructors?

- AFAP is led by health and fitness professionals who have completed a multi-component, blended Web-based and in-person training.
- Instructors are certified in CPR and lifeguard or water safety. They are experienced working with people with chronic conditions.

### What are the benefits?

- In randomized controlled trials, AFAP has been found to improve joint range of motion, muscle strength, flexibility, and aerobic fitness.<sup>1-3</sup>
- AFAP participants have also reported improved physical function and quality of life.<sup>2</sup>
- No safety concerns have been reported in the literature.<sup>1-3</sup>
- 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.<sup>2</sup>

## 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 Wait-list control	250 adults with osteoarthritis	↑ physical function, quality of life ↑ positive outcomes when > 2 classes attended
Wang TJ, Belza B, Thompson FE, et al. (2007)	RCT with non-exercise control Outcomes assessed at 6 and 12 weeks	38 adults with osteoarthritis of the hip or knee	↑ knee and hip flexibility ↑ strength and aerobic fitness Adherence rate = 81.7% No exercise-related adverse effects

\*RCT = randomized controlled trial

## Selected References

- <sup>1</sup> Patrick DL, Ramsey SD, Spencer AC, et al. Economic evaluation of aquatic exercise for persons with osteoarthritis. *Medical Care*. 2001;39(5):413–424.
- <sup>2</sup> 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.
- <sup>3</sup> 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.

### Fees and Location

AFAP is a low-cost program. Fees per session may vary by location. Check [www.apta.org/Arthritis](http://www.apta.org/Arthritis) to find current locations.

### For More Information

**Aquatic Exercise Association**  
[www.aeawave.com](http://www.aeawave.com)

**Centers for Disease Control and Prevention**  
[www.cdc.gov/arthritis/interventions.htm](http://www.cdc.gov/arthritis/interventions.htm)