

# AQUATIC FITNESS

## THE POTENTIAL BEYOND WATER AEROBICS

**F**or the past several decades, when someone mentions aquatic fitness, most people think of water aerobics at the local Y or recreation center with its senior participants gently bouncing in the pool holding pool noodles. These type of water aerobics classes exist all over the country and while they are an option for those who can no longer workout on land such as the elderly or infirm, the potential of aquatic fitness is so much greater and is finally starting to be recognized.

### THE SCIENCE OF AQUATIC EXERCISE

The benefits of exercising in the water can be, in part, explained by science. Even in classes where it looks like the participants are barely moving, they are benefiting their body just by being in the pool. This is because of the combination of buoyancy and hydrostatic pressure, both of which affect the physical body when one is submerged in water.

Buoyancy is what we are most familiar with. In the water we are practically weightless, weighing only 10% of what we normally do on land. The effect of buoyancy relieves the compression on our joints, creates space, relieving pain and allowing for a great range of motion.

The other factor is hydrostatic pressure which is the pressure of the liquid on your body when you are in the pool. Hydrostatic pressure has some amazing benefits such as improving circulation, enhancing our breathing capacity and reducing nerve pain.<sup>1</sup>

Exercising in the water offers many more options than just steady state aerobics. A wide range of different aquatic classes have started popping up all over the country..

### AQUATICS HIIT

High intensity interval training, or HIIT as it is called in the industry is a type of workout scientifically based on timed intense exercise offset by rest. HIIT in the water adds another level of intensity because you have to work against the current (or drag as it is called) of the water.



AquaGym Fitness

One company based in North Florida, AquaGym Fitness, has built its business by offering aquatic HIIT classes in a variety of city and community pools. These

classes are not only well-received, they have created a dedicated fan base that is willing to workout in outdoor pools year round. Yes, the pools are heated but when the air temperature is in the 40s, it's still quite a feat.

### AQUATICS STRENGTH

Aquatic exercise is an excellent choice for building strength because you have the added resistance of the water which can be amplified by special equipment. There are two primary types of aquatic equipment: buoyancy and drag. The buoyancy equipment like

A woman with long brown hair, wearing a white one-piece swimsuit, is underwater. She is holding a pink foam roller with both hands. Her legs are bent and raised in the air. The water is clear blue, and there are many bubbles around her. The lighting is bright, creating a shimmering effect on her skin and the water.

HIIT ...incorporates several rounds that alternate between several minutes of high intensity movements to significantly increase the heart rate to at least 80% of one's maximum heart rate, followed by short periods of lower intensity movements... and was used to improve the performance of elite Olympic athletes. <sup>2</sup>



“Aquatic therapy is as effective as traditional, land-based weight training, and it opens athletes up to a variety of new exercises to enhance their performance. Water provides resistance and allows athletes to work different muscle groups by improving overall flexibility and strength.”<sup>3</sup>

foam noodles and dumbbells will support movements like, going into suspension, but if you work against the innate desire to float, by pushing the equipment down in the water, for example, you can make the movement more challenging. Drag equipment increases the drag, or the pull of the water so a simple arm sweep can become an intense, strength-building exercise.

### **AQUATICS TRAINING**

Exercising the water has also started to be used for athletes to prepare for exercise or even a competition on land. This may seem counterintuitive but, once again, science shows the benefits.

### **AQUATIC REHAB**

Aquatic exercise for rehabilitation after injury or surgery is an obvious choice. The fact that the buoyancy of the pool relieves the pressure on the joints allows for greater therapeutic options.

### **AQUATIC FLEXIBILITY**

While some classes are taking aquatic exercise to a more intense level than water aerobics, other classes are slowing things down and focusing on range of movement, balance and flexibility. These classes, while slower, are still intense because of factors like maintaining balance for longer periods of time and the repetition of the movements. These classes may also be called Aqua Yoga, Stretch or Pilates to name a few.

### **AQUATIC ARTHRITIS THERAPY**

Almost any aquatic exercise class will benefit someone suffering from arthritis simply because of the physical benefits of being in the water, namely the buoyancy which reduces pressure on the joints and the hydrostatic pressure which alleviates nerve pain among other things. But more and more, arthritis focused classes are being developed for the pool. These classes are designed specifically to improve the quality of life of people suffering from arthritis.

“Improvements in cardio respiratory fitness, flexibility, muscular strength, endurance, and body composition will all be realized by exercisers in an arthritis class. Participants will be more functional in daily activities, have more freedom of movement, range of motion and joint mobility will be increased, [and] participants will also experience a greater sense of self-worth. <sup>4</sup>

As you can see, there are a wide range options when it comes to aquatic fitness. When looking for a class, consider the following:

- **PROFESSIONAL CERTIFICATION** — just like any type of exercise, proper training is key. This is even more important when dealing with the physiological effects of exercise in the water. The Aquatic Exercise Association (AEA, [aeawave.org](http://aeawave.org)) is the gold standard of aquatic training. They also offer specific training for arthritis training (AFEP) so look for these credentials.
- **SAFE FACILITY** — consider if the pool is indoor or out, if it is equipped with the proper safety options for getting in and out of the pool (handrails, pool lifts), if there is a lifeguard or staff that is CPR trained, and if there is an AED.
- **INSURANCE** — always consider if the location and staff are insured and provide the information readily upon request.
- **RANGE OF CLASSES** — inquire about the types of classes offered and if limited, consider requesting others or supporting a facility where a greater range of classes are offered.



1. [HTTPS://WWW.SWIMEX.COM/RESOURCES/HYDROSTATIC-PRESSURE-HYDROTHERAPY-BENEFITS/](https://www.swimex.com/resources/hydrostatic-pressure-hydrotherapy-benefits/)
2. [HTTPS://WWW.HSPH.HARVARD.EDU/NUTRITIONSOURCE/HIGH-INTENSITY-INTERVAL-TRAINING/](https://www.hsph.harvard.edu/nutritionsource/high-intensity-interval-training/)
3. [HTTPS://WWW.HYDROWORX.COM/BLOG/THE-BENEFITS-OF-AQUATIC-CIRCUIT-TRAINING-FOR-ATHLETES/](https://www.hydroworx.com/blog/the-benefits-of-aquatic-circuit-training-for-athletes/)
4. AQUATICS, THE COMPLETE REFERENCE GUIDE FOR AQUATIC FITNESS PROFESSIONALS, RUTH SOVA

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