



NOT JUST YOUR GRANDMA'S AQUA AEROBICS

With Olympic and professional athletes training strength, power and flexibility in the water, the stigma attached to aquatic fitness is unjustifiable.

WORDS: RICK MCAVOY

When it comes to exercise classes (as opposed to swimming), the aquatic environment still has the stigma for many of being a place where old ladies in flowered bathing caps jump up and down with a noodle. It's clear how this may deter some women, and many men, from looking to the pool for a more intense workout.

However, while the water is a logical choice of workout environment for older people looking to increase their fitness in a low-impact manner, the fact is that there are numerous aqua classes out there for almost any interest, age or ability level. A number of land-based exercise programs have been adapted for the aquatic environment to help increase participation in aqua fitness. Bikes, trampolines, poles, boxing bags and suspension trainers – to name but a few – have been put in the pool, with varying degrees of success. These programs are great for keeping the participant moving for a cardio workout, and tend to create a fun, social and stimulating environment.

Sometimes, however, what works upstairs in the studio doesn't transfer so smoothly to the pool. One thing is certain: to design an effective aquatic fitness program, it is crucial to have a thorough understanding of the medium and the way the human body interacts with it. One of the biggest mistakes that trainers make when they begin to develop aquatic fitness programs is to simply apply their land-based training

principles to the pool. They quickly find that the training mediums are very different. The water is a buoyant, three-dimensional, holistic, non-momentum environment that is the opposite of the weighted, one dimensional, momentum-prone land setting.

The water does not discriminate

The water allows for a very different training experience than most are accustomed to. Water can be up to 800 times more supportive than air, but up to 15 times more resistant to any movement. The water is the great equalizer: the harder you push in the water, the harder the water pushes back. Water provides an accommodating resistance. So no matter what fitness level a client is at, as long as they are working their hardest, the water will give them a great workout.

So, theoretically, you can have an elderly person working out alongside an elite athlete in the water, performing the same exercise, and they will both get a phenomenal workout.

3-D training and gravity

Most land-based programs are deeply rooted in one plane of motion, primarily the sagittal plane. More multiplanar training programs (with increased focus on transverse plane movements) are being developed, but these can be complex to learn and challenging to train, and sometimes lead to injury if proper training doesn't occur. In the pool,

however, this style of training benefits from the supportive properties of the water, which enables much safer and more functional execution of the exercises. Water provides three-dimensional resistance inherently, so the muscular and neurological systems receive a more comprehensive training effect.



The 30-second article

- Aqua exercise can benefit everyone from professional athletes to older people and those recovering from injuries
- To design an effective aquatic fitness program it is crucial to have a thorough understanding of the medium and the way the human body interacts with it
- The harder you push in the water, the harder the water pushes back – so as long as they are working their hardest, the water enables a powerful workout for participants of all levels
- By developing quality, scientifically-based programs you can attract new clients who would otherwise not be interested in aqua exercise.

Land-based training also tends to rely on both gravity and momentum. When the body enters the water, both of these are significantly reduced and the body has to respond very differently. This is a great way to challenge the body, break through plateaus, cross train, and balance muscle groups and dysfunctional movement patterns shown to significantly affect progress and performance.

In my 25 years specialising in aquatic fitness, I have worked with clients of all levels and abilities, from those suffering spinal cord injuries and severe neurological disease/disorders up to professional and world-class athletes. I have found that everyone can benefit from the water in some capacity. I currently train a significant number of elite Alpine skiers, both on the land and in the water. I incorporate the water for a number of reasons, from rehabilitation of in-season injuries to pre-season power, speed and agility cross training and active recovery.

Use scientific credibility to promote effective workouts

As aqua professionals, we need to develop quality, scientifically-based programs based on the latest research. In a world demanding increased efficiency, more people should be aware that the pool can be the new gym.

In the past few years, some promising aquatic research has been published. Several studies show that the water can be a fantastic training environment to challenge any fitness level, including Olympic

and professional athletes. Strength training in the water was once thought impossible, but over the past few years studies have shown that if used with the correct pace, equipment and effort, noticeable strength gains can be achieved.

Research has also shown gains in lower body flexibility after participating in aquatic fitness programs. Power training, especially plyometrics in the water, has been extensively studied and the results are very similar to those for land-based training, but without the added muscle soreness associated with land training. I have personally performed research in the area of shallow water sprinting compared to land-based sprinting. The results showed that the participants reported a much harder workout in the water with much less muscle soreness.

When developing an aquatic fitness program at your facility, don't be afraid to think outside of the box. By doing so you can attract a new clientele that would never have previously considered working out in the pool. As long as you're familiar with the research and are qualified to train people, then you can design programs for any population or fitness level. Remember, the water is the great equaliser. **M**

For references read this article at fitnessnetwork.com.au/resource-library

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