

# An Ocean of Opportunities - there is a sea of equipment



The bottom line for profiting in the aquatic fitness industry is to realize that change is good and that there is an ocean of opportunities for those who rise to the challenge of updating and perhaps outdating some of their technology.

The key to successful aquatic fitness design is **NOT** to apply a one size fits all approach or a watered down land program but to utilize its natural buoyancy and resistance and teach people the skills so that they may handle the water at their desired level of intensity or impact.

Equipment is an area of important growth not only to add variety and stimulus to a program but to progress a program to create a complete water gym. Fundamental considerations include: cost, storage, type of equipment, objective of equipment, appropriate use of equipment, and liability.

**Although I have seen pots and pans used in the pool, it does not portray a professional application for aquatic fitness training nor does it suggest that a client should pay for such a "home-grown" approach.**

Often facilities need some system of determining what equipment provides the most benefits cost effectively. Understand that equipment needs to have secure storage and that durability and programming is not the same with all pieces. Take a critical look at how to progress a program to provide overload, variety and enjoyment and look at the cost of losing participants. Boredom and not getting results are some of the major reasons that people leave a program.

## Mitts

The primary purpose of a mitt is to aid in balance and body support. The secondary purpose is for

upper  
body



resistance. By increasing the surface area of the arms, the body is more balanced with the surface area of the legs.

There are two types of mitts:

**The soft mitts**, usually made of spandex, polyester or lycra, have little resistance; however these may be more suited to people with severe arthritis or sensitivity to fabric.

**Neoprene mitts** are more durable and suitable for more upper body resistance work. Mitts should be a personal item that the students invest in since they are subject to the corrosive environment of the water chemicals like swimwear & footwear.

## Deep H2O Buoyancy Belt

The purpose of a buoyancy belt is to unload the stress on the joints in shallow water and provide safety for non swimmers OR to help a participant balance work and rest in deep or transitional depths.

It is necessary to wear some type of buoyancy equipment in deep water otherwise the body has a



difficult time balancing. Without a buoyancy belt, most individuals would cheat the leg movements and just scull to keep their head above water.

Using the correct amount of buoyancy is key to exercise comfort and performance. If a person has too much buoyancy, they can become tilted and off balance. This could aggravate a back problem or cause the wearer to spend more time fighting for balance than performing the exercise. Women often require more buoyancy on the

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front to balance the buoyant bottom, whereas men typically require more buoyancy at the back. There are several belt designs available. Speedo makes a "six pack belt" with 6 dense foam blocks along an adjustable length belt. Blocks can be added to or taken off for convenient sizing and balancing body position. The waist size may be adjusted to a child or to a large waist individual. Athletes with little body fat will require a more dense belt to maintain their head to stay afloat.

## Aquatic Fitness Steps

The aquatic fitness step is constructed differently than a land step because it has to remain in place on the bottom of the pool. Its primary purpose is to load the lower body and legs by 50% by adding gravity to the movement, thus providing increased weight bearing. An aquatic fitness step provides challenge in terms of balance since it requires the individual to change water depth. (Balance is different



with each water depth.)

Steps also allow for increased range of motion for lower body movement.

For example: when performing a

skateboard movement with a step, the step provides greater range of motion, thereby adding more muscular power as well as stabilization for the supporting hip and dynamic balance.

The step can simulate travelling moves when a pool has limited space to travel, crowded conditions, or is unsafe due to the varying abilities of participants in the program. In this instance each individual has their own space in which to move and control the inertia currents.

Aquatic stepping can help the participant to simulate functional needs such as stair climbing (ascending and descending steps), stepping up on a bus, balancing on uneven surfaces, learning how to change and adjust their balance, as well as learning how to control balance and recover from falling in a

safe environment.



The design of the step is 7 inches in height, which is representative of most stairs. It is florescent orange in colour for easy visibility in the water and has a rubber grid to minimize slipping. Steps do move slightly, however, this is a benefit since it adds dynamic balance and challenge to any movement. If a participants step is moving so much that it is frustrating or compromising movement, check that the step is on a level surface or that the person maintains good posture over the step. Ideally, participants will need approximately 6 square feet of space per person.

Participants wishing to work at a lesser intensity may perform the same movements off the step ( then add the step for a progression.) Additionally, the step may help to strengthen the quadriceps and Gluteal muscles without rebounding work. In other words squats and reverse lunges may work the supporting leg because the person is at waist depth. Water depths needs to be cover the hip and no higher than sternum depth, so the maximum benefits may be sought. Pools that are extremely slanted or tiled and slippery may not work with an aquatic step.

## Resistive Paddles

Hand paddles or longer flex paddles offer an opportunity to provide overload for upper body muscular strengthening work. Traditionally, women are very weak in the upper body. The flex paddles offer 5 levels of progression and should be added only the participant is ready to progress their strengthening exercises. The biggest feature of resistive paddles is that the shoulder



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may be submerged when performing upper body strength work to prevent impingement (or bone pressing to bone) on the shoulder. Additionally, a paddle may be utilized for advance scapular stabilizer exercises or by dragging the arms with paddles for more lower body work. Be careful not to grip hand held equipment. Always hold lightly with the thumb and fore finger so that the palmer circulation is not cut off.

## Resistive Bands



Resistance bands or tubing are excellent tools since they may be used both on land and in the water. The use of this piece of equipment may be learned in the water, then taken home for ongoing training (because some people may not always be able to make a scheduled aquatic fitness program). Bands provide overload, especially as range of motion increases. Just be careful to resist on the way back in for eccentric loading or more functional resistance (don't let the bands snap back).

Participants have the opportunity to increase or decrease the slack on the band to change the resistance. A safety consideration for resistance bands is speed. Do not use speed and momentum for the muscular strength exercises. Rather, control the tension in both directions to provide optimal benefits. The Fit Bands are made in 15 inch & 30 inch loops and are very user friendly since participants do not need to over-grip the band and may hang onto a "slippery band" in the water more easily.

## Noodles



Noodles add enjoyment, variety and entertainment – and are affordable. Whether a "toy", a prop or an extension of the gym, the

noodle, a 5ft cylindrical piece of foam, has found its way into most pools in the world. Participants may choose to relax the exercise with assisted applications or challenge the exercise by resisting buoyancy. Realize

that there are many exercise options that can be skillfully created. A person may sit, stand, lay, kneel, partner, drag, hold it above water, wrap it around the body, or simply utilize the noodle as an extension of the levers. Realize that there are many adaptations or progressions and not everyone will want to perform, or benefit from, the same program.



## Balls

Balls are excellent for training the abdominal and back muscles that engage to work for "core stability".

Basically anchoring down movements in the water require all the abdominals to isometrically engage to support good posture and balance.

### 1. Here are some tips for awesome abdominals:

- May be trained everyday
- Try to utilize a variety of body positions
- Try to utilize a variety of equipment such as bands, dumbbells, belts, noodles, balls, fins, steps, kickboards, mitts
- Think of pulling your belly button towards your back bone
- Add Balance Exercises for training the abdominals
- Progress your abdominal workout by adding NEW exercises or more exercise repetitions or more SETS of exercise repetitions

The formula is **GREAT ABDOMINALS = good posture + technique + balance exercises**

You may even use small sponge balls to engage all the small muscles of the hand. Although the finger muscles additionally need stretching to prevent claw hands, strengthening work is key for strengthening the forearms and preventing wrist fractures and aiding in stabilization of the wrist. It is an affordable item and allows frail or severely arthritic participants to start building hand and forearm strength. Additionally, balls may be utilized for hand to eye coordination skills and juggling fun!

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## FOAM Dumbbells/Rings etc

Foam dumbbells may assist buoyancy or resist buoyancy for upper body strengthening work.

Dumbbells may vary in terms of buoyancy. A small dumbbell or buoyant rings provides an easier strength (resisted) workout when compared to the denser and thicker rings. However, for buoyancy-assisted work, the small foam dumbbells make the exercise more difficult because they have less foam and the thicker dumbbells make the work easier.



Be cautious not to do too much upper body strengthening with a participant at first. Start slowly and work up. Movements for strength should be slow and controlled so that there is eccentric loading on the way up to the water's surface (or in the direction of buoyancy). Buoyancy Dumbbells may also be anchored in the water for some shoulder stabilization work or additionally drag for the lower body. A frail person may also feel more secure with buoyancy dumbbells than a noodle – and this may be the equipment you need to get them off the wall and moving through the dynamic water.

## Kick Boards

Most pools have kick boards. A kick board is a very stable tool when used for securing balance ( and progressing the person off the wall). Start with one kick board either side of the body to balance good posture, then progress to the board in front, then to a kickboard on one side.

Avoid using a kickboard for strengthening exercises if the person has low upper body strength or shoulder problems. A board may be utilized for dynamic balance exercises such as sitting, standing or kneeling balance exercises, but caution against the board popping out of the water and hitting your face, should you lose your balance. Kick boards may be combined with training fins for a more challenged session. All equipment may be combined for variety and progression or modification but remember to

evaluate the exercise goals and risks of the new exercises.

## Training Fins

FINS are made of soft black rubber of various lengths and sizes. Fins may provide superior quadriceps work, which unless a participant is performing step or lots of rebounding may not be engaged sufficiently. Quadriceps strength is important to help support the knee joint and walk up and down the stairs. Fins may also greatly increase your lower body strength and VO<sup>2</sup>max;

through speed (without streamlining) a flutter kick becomes a real challenge. With fin training we also utilize a variety of body positions and equipment additions

(barbells, paddles, tethers, chutes, kickboards) to challenge the top athletes.



## Buoyant Cuffs

Buoyant cuffs may be worn on the ankle to increase surface area for ADVANCED work for the lower body.

Program applications may include shallow water walking or deep water training. In deep

water, the buoyant cuff changes (and challenges) a person's balance because it is extremely hard to keep the feet anchored underneath the body. Cuffs may also be put together for a buoyancy belt or utilized for hand held upper body exercises.



There are many other pieces of valuable equipment, so keep your mind and your training options open.

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