

Online Aqua Fitness Certification



**With Kelly Reed-Banks &
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This online certification in Aqua Fitness is designed for the fully qualified instructor who would like to teach water based exercise classes. They are either looking to expand their knowledge and rapporteur to teaching Aqua or gain more choreography ideas for their current classes.

We have designed this online certification to give you all the updated information you need to progress your teaching in Aqua in the comfort of your own home. It is ideal for the busy instructor who would like to gain CPD in the comfort of their own workplace or home.

What do you receive in this online certification?

- Full comprehensive manual which gives you the theory behind Aqua Fitness classes.
- Health benefits and considerations with regards to exercising in Water
- Choreography notes on different formats for your Aqua classes.
- Full access to your learner online portal which includes wide variety of choreography ideas and formats

This online Aqua Fitness Certification from Choreography To Go is accredited by Accredited by NASM - The National Academy of Sports Medicine and AFFA



Assessment Criteria

In order to successfully achieve your certification in Aqua Fitness you will be required to complete the following -

Gain full marks on the open book exam paper - this paper consists of 40 multiple choice questions

Submit a detailed 6 week session plan showing how you would progress a class over a 6 week period, including correct exercises, BPM & teaching tempo, teaching points and adaptations and progressions for your warm up, main exercises and cool down.

Gain 70% on your instructing worksheet

You are required to complete all parts of the assessment within 4 months from when you enrol on the course. If an extension is required, then this is chargeable at £15 per month.

If your work refers within the 4 month deadline then reattempts are free of charge, if the learner refers outside of the 4 month deadline then a £25 resubmission fee is in place.



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Introduction - Why teach Aqua Fitness?

It could be the middle of winter in many areas or blazing hot outside, but Aqua fitness classes are still creating a splash in clubs everywhere. In fact, today's programming schedules are awash with innovative aquatic offerings –taught in both shallow and deep water—that appeal to a wide range of clients, such as kids, pregnant/postpartum women, athletes, older adults and people with special medical needs.

One common misconception about water aerobics is it's relegated for only the elderly, injured or chronically ill. However, water's resistance forces your body to work harder than if you were exercising on land.

On average, you can burn up to 750 calories in a one-hour aqua fitness session. Also, don't be fooled by your heart rate. According to the American Council on Exercise, your heart rate in the water decreases by 17 beats per minute in comparison to exercising on land.

They should pay attention to how you feel. Just because you're participants are not breaking a sweat and their heart rate seems low doesn't mean they are not getting a strenuous workout.

Different Populations

Traditionally, many aqua fitness classes have targeted older adults, who greatly benefit from the water's natural resistance and supportive buoyancy. But now a sea change is occurring in the member demographics attracted to this form of exercise.

Phil Arney, co-owner of Youth Fitness Solutions Inc. in Irvine, California, specialises in water fitness for kids. Geared to children ages 7 to 14, his classes are designed to “improve swimming strength and water confidence, but mainly to [be] fun,” he says. To increase the fun factor, he tries to come up with kid-friendly class names, such as “Splish and Splash” and “Duck and Dive.”

Sandra Eberlein, an aqua fitness instructor in Berlin and Charlottenburg, Germany, has created a whole roster of water classes that appeal to clients of all ages and backgrounds, including older adults, pre/postnatal women and novice exercisers. Understanding that a single format couldn't meet everyone's needs, Eberlein developed a different class to meet each demographic's specific fitness goals. For example, “Aqua Fitness Prenatal” is designed to limit pregnancy-related discomfort and strengthen the body



in preparation for childbirth. After delivery, “Aqua Fitness Postnatal” emphasizes recovery of the pelvic floor muscles. Eberlein also offers “Power Aqua Fitness,” which focuses on muscle strengthening, and “Aqua Fitness for Beginners,” which teaches basic water movements.

Athletes wishing to perfect their tennis game are the target demographic of Bethany Diamond, a personal trainer and group fitness instructor who serves on IDEA’s water fitness committee. “The [majority] of my participants are teenagers, but anyone interested in improving their performance on the tennis court can and should do this workout,” she says. “The goal is to improve control, balance, speed and ability on the court.” Diamond teaches her “Tennis Training Drills in the Water” class at the Chattahoochee Plantation tennis courts in Marietta, Georgia, the training camp for the Universal Tennis Academy.

Saturating the Market

In addition to teaching community aqua fitness classes for all ages and levels, Debbie Miles-Dutton offers a for-credit water fitness class for college students at the University of California at Santa Barbara. “The goal is to maintain and improve cardiovascular and muscle endurance, coordination, flexibility and muscular strength in healthy young adults,” she says.

Shirley Archer, chair of IDEA’s water fitness committee, trains fitness instructors in several aquatic formats that incorporate a mind-body component; she also opens these master classes to members at the Family YMCA in Palo Alto, California. Her “Liquid Magic” class includes “arthritis-friendly” moves in keeping with guidelines established by the Arthritis Foundation. “However, the workout is suitable for all levels, since it includes dynamic range of motion [ROM], stretching, balance and proprioception training, muscle conditioning and relaxation,” she says. “It is designed to be taught in warmer-temperature pools (85 degrees Fahrenheit, or 29 degrees Celsius, at a minimum) and can even be taught in a hydrotherapy pool.”

Archer also teaches a format called “Warrior Warm downs,” which uses water training as a tool for active recovery. “This workout features sports moves done in new ways, such as with both eyes closed, to improve proprioception and to train balance and stabilizer muscles. I use dynamic intervals for thermal regulation and large ROM exercises for dynamic flexibility training.” Archer complements the physical experience with creative visual-imagery cues to encourage participants to discover their “inner warrior spirit.”



Myth vs. Science

There are many myths regarding the effectiveness of water workouts as an aerobic exercise.

Some people, include fitness professionals believe that a person does not achieve a workout in the water comparable to that on land. This misconception stems from a variety of sources; that Aqua is only for unfit individuals, pregnant women and seniors; that the lower heart rate measurement achieved during water exercise means that one is not working; that the lack of a good “sweat” means one is not burning any calories; and that swimming does not work off fat. Aqua participants and leaders know otherwise.

We experience the fitness gains and other benefits of aqua fitness on a regular basis. Science actually supports intuitive perceptions about the value of water workouts.

Research shows that aerobic gains in the water are equal to those on land. In addition, strength increases from water exercises may be greater than those from land exercises, due to the water’s resistance.

This is great news for Aqua instructors and participants alike.

So it's time to rethink the pool as another frontier of fitness, a liquid athletic training ground, if you will.

So say goodbye to aqua aerobics, and make way for a new generation of water-based classes.

Re-Invention of Water Fitness Classes

There are two emerging schools of thought about the reinvention of water fitness. One treats the pool as a strength- and cardio-training room.

Water provides natural resistance - the harder or faster you try to move or push through it, the more it will resist you. Sports drills that you might find easy to do on the gym floor, like executing a grapevine, can suddenly feel more challenging in the water. At the same time, water is gentle on the body, which is why it's used for injury rehab.

The other school of thought calls for adapting popular "land"-based formats - such as kickboxing, yoga and Pilates. The premise is that if participants do these formats on land, they might try them in water.

One of the things that differentiates these workouts from old-school aqua aerobics is that participants are no longer working out to a beat. So if fitness enthusiasts, sense of rhythm on the studio floor draws horrified



looks, they don't have to worry about keeping up with the tempo in a water fitness class.

Now I am not saying that if you like working to a beat when you teach your Aqua classes the all of a sudden change it, but you could offer a variety of styles to your water classes so cater for all clientele.

Benefits of exercising in water

LOW IMPACT FITNESS

Land-based exercise, including aerobics, is performed by people of all ages. But along with the benefits of aerobic activity comes the high impact stress on muscles and joints, resulting in muscle soreness, stress fractures and injury - all of which may contribute to reduced activity and fitness. Deep-water running & aerobics opens up a new opportunity for people of all ages, and varying levels of fitness, the forgiving water environment is effective and enjoyable.

BUOYANCY

The upward thrust exerted by water on a body, which acts in the opposite direction of the force of gravity. Water's buoyancy virtually eliminates the effects of gravity - supporting 90 percent of the body's weight for reduced impact and greater flexibility. For example, a 140 lbs (63kg) person weighs only 14 lbs (6 kg) in the water. Water acts as a cushion for the body's weight-bearing joints, reducing stress on muscles, tendons and ligaments. As a result, aqua workouts are low impact and can greatly reduce the injury and strain common to most land-based exercises.

RESISTANCE

Due to viscosity, drag forces and frontal resistance, water provides a resistance which is proportional to the effort exerted against it. Resistance in water ranges between 4 and 42 times greater than in air - depending on the speed of movement. This makes water a natural and instantly-adjustable weight-training machine. Unlike most land-based exercise, water provides resistance to the movement in all directions, which allows all of these directions be used in the strengthening process. Water's resistance can be increased with speed and/or surface area, and the resistance is proportional to the effort required to move against it. With the addition of water fitness equipment, such as buoyancy belt, webbed gloves, floats and foot-ware, resistance is increased to strengthen and tone muscles.



H2O HEART RATE

The unique properties of water enable your heart to work more efficiently. The hydrostatic pressure of water pushes equally on all body surfaces and helps the heart circulate blood by aiding venous return (blood flow back to the heart). This assistance to the heart accounts for lower blood-pressure and heart rates, during deep-water exercise - versus similar exertions on land. Consequently, your heart rate is an estimated 10-15 beats lower per minute during suspended water exercise than for the same effort applied on land.

Weight Loss

Recent scientific study at the Texas A&M Research Laboratory determined that aquatic exercise had significant benefits for adults who were obese or overweight.

- Water also has greater resistance than air, which means walking in water requires more effort and ultimately burns more calories than walking on land.

Injury Rehabilitation

Water is an excellent base for exercise, providing an anti-stress environment for movement. For initial therapy, gentle water exercises use the water's resistance to build muscle strength and flexibility.

Water exercise can be performed more easily by people who find lifting weights, or even weight bearing exercise, difficult or painful on dry land. Water also provides buoyancy and support for the body.

When in shoulder deep water, a person only has to support 10% of actual body weight. Exercising in the pool allows greater range of motion without joint pain, or joint re-injury.

The warmer water of the therapy pool induces vasodilation, which draws blood into the target tissues. The increased blood flow delivers oxygen and nutrients to the tissues while removing cell wastes. This helps promote faster healing of injured tissues. The warmth also decreases muscle spasm, relaxes tense muscles, relieves pain, and reduces swelling.

Water has unique properties that make performing therapy activities either easier or more challenging, depending on the need. These properties include:

- Buoyancy (assistive, resistive, supportive) - reduces the majority of body weight on painful, injured or surgically repaired tissues, joints, and bones. This allows the patient to regain increased range of motion without the pain associated with full weight bearing. It also allows starting rehabilitation much sooner after injury or surgery. In shoulder deep water, body weight is effectively reduced by as much as 90%.
- Hydrostatic pressure - mild water pressure helps reduce localized edema following tissue injury. Supporting the body, water pressure also helps joint stability and reduces risk of injury from falls.
- Resistance - varies by the force (velocity) of motion. Increased force against water produces more resistance, which increases muscle effort, thereby increasing muscle strength and tone. Initial rehabilitation involves light resistance, progressively increasing as muscles strengthen. Resistance can be gravity assisted or resisted, buoyancy assisted or resisted.

Sport and Fitness

The main advantage of exercising in water is that it offers resistance in all directions, compared to land exercises where you work only against gravity. Because of the cushioning effect that water provides, this form of exercise is particularly beneficial to anyone at risk from bodily stress, including the elderly, overweight, or those recovering from soft tissue injury.

MAINTAIN FITNESS LEVEL DURING INJURY

Increased aerobic endurance

- Greater flexibility
- Increased muscle tone

Benefits

- High calorie burning during and after a workout.
- Renews your energy level as it releases your stress and tension.
- Exercising in water requires you to support only 50% of your body weight, making exercises easier to perform.
- You don't need any special equipment, although there is a variety of equipment available for increasing variety, fitness and helping with floatation if required.
- Water's buoyancy lowers the risk of stress-related injuries that some land exercises have
- The water's resistance against your movements results in a higher workout intensity compared to land exercises.



- A massaging effect is created when your muscles are surrounded by water.
- Available all year round. Is not restricted by outside temperatures.

Arthritis

Arthritis is a general term describing over 100 medical conditions that cause pain, stiffness and inflammation in joints. Regular gentle exercise is one of the most effective treatments for arthritis, improving flexibility of joints, muscle strength, general health and fitness.

Water exercise is one of the most comfortable and effective ways that a person with arthritis can exercise because the joints and muscles can be exercised while supported in the water. Activities such as stretching or walking through water can exercise the joints without putting them under strain.

Our units are all heated and temperatures can be easily adjusted between patients adding to the benefits and comfort.

Precautions of teaching Aqua Fitness

Water-based exercise programs should be avoided by individuals who have the following:

- Compromised Respiratory Functions
- Severe Hypotension
- Bladder or vaginal Infections
- Any Infectious Diseases
- Chlorination Allergies
- Open or Unhealed Wounds

In addition, anyone who is apprehensive about being in water or has a fear of drowning should be excluded from water-based exercise programs. The onset of panic can be quite fast and could cause injury. It is important that those individuals who cannot swim be provided with adequate flotation devices.

Aqua Instructor Considerations

Water-based exercise classes may place a greater physical demand on the instructor. Your level of energy expenditure in a water-based environment will certainly depend on how long you are actually instructing while in the water. Chlorinated water, water cleanliness, sunlight (if outdoors) will all provide an additional strain on the instructor over land-based indoor exercise classes. The chlorinated atmosphere can produce an additional



strain on the respiratory system and vocal chords of the instructor. This is especially true of the instructor is doing many more classes a week than one would normally attend if just a participant. Since everyone's sensitivities and stamina is different, it will be up to the instructor to determine the maximum number of classes to teach per week to avoid overtraining and environmentally induced abuse.

Teaching Style

There are two different styles used in teaching aqua exercise classes with advantages and disadvantages for both. While some instructors will prefer a particular style, it is recommended that a combination of both styles be used to facilitate the demonstration of the exercises as well as reduce the effective water immersion time for the instructor. As in land-based classes, it is also sometimes advantageous for the instructor to move around the class and provide individual coaching. Remember, the class is intended for the participant's exercise time, not the instructor's.

Pool Side Teaching

This style provides the best instructional view for the participants with the least amount of effort for the instructor. It also provides the instructor with a better view of the class participants and facilitates shorter learning curve for the class participants. Remember that any move demonstrated should be slowed to simulate the increased resistance of the water. Since participants will be watching the instructor at a higher level, it is important to correct instances of neck hyperextension to avoid excess pressure on the cervical disks. The instructor's position should not be limited to facing the class, but be optimized to facilitate proper instruction.

Instructors should be careful to avoid slipping on slippery decks, which can be minimized by wearing water shoes. Care should also be taken with regard to exposure to heat and humidity to avoid heat exhaustion by drinking plenty of water and occasionally dipping into the pool.

Water Teaching

This style provides the instructor with the same exercise medium as the participant allowing easier simulation of exercise moves. However, it makes it difficult for the instructor to demonstrate the moves since the participant cannot see the instructor's body movements. This precludes the ability to demonstrate the moves and their proper form to new or unfamiliar participants. Again, this may be more fun for the instructor; however, this is not the instructor's exercise time. This may be an effective style with



seasoned participants as well as for short periods to demonstrate water specific techniques.

Technique

The intensity of a particular movement in which air is the only resistance will be less as opposed the same movement through the much denser medium of water. Air, although invisible, is a gaseous substance and provides resistance and thereby friction to an object moving through it. Water can be considered similar to air just denser. This medium provides a type of resistance known as Isokinetic resistance.

As an example, if we move an arm at a constant speed, the tension remains constant (resistance of the water). However, if we change the rate of speed (acceleration) of the arm movement from slower to faster, we also change the tension (water resistance). This occurs in air also, but is quite minimal and, therefore, goes unnoticed. This change in resistance is not only dependent on speed through the water but on surface area of the part moving through the water. Wearing webbed gloves or holding foam dumbbells will also increase the standing resistance; while changing the rate of speed will change the moving resistance.

Additional resistance can be achieved using a downward movement of foam devices, which contain air. This air is directly acted on by the increased pressure as the item moving deeper into the water. This is due to water pressure. An item 2 inches below the surface contains the weight of only 2 inches of water above it while an item 2 feet below the surface experiences the weight of 2 feet of water pressing on it from above. Divers are subjected to much more extreme pressures by having hundreds of feet of water pressing down and all around their body at those depths. Again, it's just not quite as noticeable in a pool, but the forces are the same.

Just as in land-based exercises, it is important to maintain proper form, which includes posture to avoid injury as well as direct the physical movement to the intended muscle systems. Due to the changes in balance due to the forces of the water, care must be taken to avoid hyperextensions of the neck, back and knees to avoid excess pressure on the joints. Our body is used to reacting with gravity in order to maintain balance and coordination. In water, the effects of gravity are reduced, which alters the interpretation of bodily movements and position. This positional mechanism is called Kinesthesia.



It will also be necessary to provide balanced and counter-balanced movements. Again, physics plays an important role in water dynamics. With a nod to Newton, every movement results in an equal and opposite movement and is particularly true in when an object or person is suspended in water. Without the full effects of gravity (weight), a backward thrust of a leg will propel a body forward. This works well for swimmers. Care must be taken to counter balance movements to maintain proper balance and alignment. Choose movements based on the reactionary force that will be exhibited in the water and the subsequent effects on balance.

As in land-based exercise programs, the frequency, intensity and duration of the workout will have a direct influence on the derived cardiovascular benefits. The Intensity progression provides the application of the properties for regulating resistance levels. Intensity can be varied by increasing or decreasing the speed of a movement or the range of motion or the surface area of the body part.

Water Temperature

Studies have found that most people at rest will begin to shiver in water temperature of about 24°C - 28°C. So it is important to begin warm up exercises right away to avoid discomfort. If you need to explain procedures to the class, have them engage in some simple arm and leg movements to maintain body heat that will not distract them from your instructions. It is therefore recommended that classes be conducted in water temperature between 24°C - 28°C or about 27°C. Temperatures which are above 28°C place an unusual stress on the cardiovascular system and increase the heart rate in an attempt to cool the body. Actual temperature recommendations vary widely.

According to the Arthritis Foundation, pool temperatures between (28°C - 31°C) are recommended for water exercise. Since it is mostly the older populations that have arthritis, this warmer recommendation may be suitable for older participants who may have more trouble regulating body temperature. Less intensive classes for this group comprised of gentle movements may allow warmer temperatures as well.

The catch here is that older populations may have elevated blood pressure, which may preclude exercising in warmer water. Participants who have untreated low blood pressure or marginal low pressure should be advised not to participate since the warm water will lower the blood pressure further due to vasodilation. This is especially true of hot tub use. The water temperature as well as the class intensity must be targeted for the



population. This is also true for land-based classes regarding room temperature and exercise intensity.

Depth

Water based exercises may be performed at one of three different levels: Shallow (waist deep), chest to shoulder depth, or deep water. Deep water classes should only be reserved for accomplished swimmers.

Water depth at the chest to shoulder level allows the body to be mostly supported by buoyancy and provides water resistance for the body to work against. Shallower water levels provide mostly body weight to work eliminating the added factor of water resistance. Chest to shoulder depth provides support of 80% to 90% of body weight and allows full suspension (feet off the bottom) for various exercises.

Warm up theory for your Aqua participants.

WHY DO WE NEED TO WARM UP?

We need to warm up prior to activity to prepare all the bodily systems for the activity that will follow.

Warming up will potentially enhance our performance and may reduce the risk of injury. A thorough warm up should therefore help to maximise the safety and effectiveness of the activity.



It is therefore essential that appropriate time is set aside for warming up before the main workout commences. It is also essential that the correct exercises are selected.

WHAT TYPE OF EXERCISES SHOULD I DO?

The warm up should contain exercises which:

- Promote the release of synovial fluid into the joint capsule and warm the tendons, muscles and

ligaments which surround each joint. This will ensure the joints are adequately lubricated and cushioned, and will allow a fuller range of motion to be achieved at each joint. This can be achieved by mobility exercises within your warm up video's

- Increase the heart rate, promote an increase of blood flow to the muscles and an increase in the delivery of oxygen. This will make the body warmer, the muscles more pliable and will allow them to work more comfortably throughout the main workout. This can be achieved by pulse raising exercises within your warm up video's.

- Lengthen the muscles and move them through a larger range of motion. This will allow them to contract more effectively in the main workout and may lower the risk of injury if moving into extended positions in the main workout. This can be achieved by range of motion stretching exercises within the warm up video.

- Activate the brain and neuromuscular pathways, focusing attention and concentration. Rehearsing skills and movement patterns, rehearsing the muscle and joint actions.

The intensity we recommend you would be working at is lower initially and would build progressively

From: Lawrence, D (2004) The Complete Guide to Exercise to Music

By not understanding the purpose of the warm up or not completing it before each session that you do is putting your clients body at risk of injury and possibly making current situations worse, not better.

Including within the online portal we have filmed warm up ideas for you but here at Choreography To Go, we want you to use your instructor integrity to come up with your own warm ups which are appropriate for your participants. As long as you can justify why you are doing the moves you teach within your warm up then these will be appropriate for your client.



Whether the aqua fitness class is in shallow or deep water, strength or aerobic in nature, designed for kids, or older adults, the basic program format is similar.

The components of a training session as dictated by the American College of Sports Medicine's recommendations should include a warm-up, endurance phase, optional activities, and a cool-down (ACSM 2006).

The purpose of class formatting is to ease the body into an exercise state and then gradually return it to a pre-exercise state. Each component serves a physiological purpose to minimise risk and enhance the training process.

A forward thinking instructor uses a variety of methods to create interesting program formats while maintaining the key elements of each training component.

Change is good.

Most clients enjoy variety in class format, from music to movement. When a facility offers variety in programming formats it allows clients to cross-train. Program variation usually targets fitness components such as cardiorespiratory endurance, muscular fitness, and flexibility. Some class formats provide training for all three fitness components, whereas others target one component. Regardless of the class format, remember the purpose for each training component and follow general recommendations for the fitness industry.

Warm-Up Component According to the ACSM (2006), the warm-up serves the following purposes:

- Facilitates the transition from rest to exercise
- Stretches postural muscles
- Augments blood flow
- Increases metabolic rate
- Increases connective tissue extensibility
- Improves joint range of motion and function
- Enhances muscular performance

The **warm-up** component consists of two or three parts that can be performed distinctly in sections ranging from 3 to 5 minutes each or that can be combined into one flowing experience that takes 9 to 15 minutes.

You have options for variety even within the warm-up component!



The first component is acclimation to the environment, which is important regardless of the mode of exercise. When you go from indoors to cold temperatures or hot humid temperatures outside, it is important to acclimate before starting strenuous exercise. Participants need to get in the water and adjust to the water's temperature. In water fitness, this is often referred to as the **thermal warmup**. The thermal warm-up can include rhythmic movements, such as water walking the length of the pool, or a sequence of marching in place or jogging, combined with various arm movements, such as reaching forward, side to side, up, down, and across the body.

If exercising in cooler water (80 to 83 degrees Fahrenheit or 26.7 to 28.3 Celsius), the thermal warm-up might need to be lengthened by 5 to 10 minutes to ensure adequate body heat is generated before progressing to the pre-stretch.

The primary goal of the thermal warm-up is acclimation to the water.

The second part of the warm-up is the optional pre-stretch.

Depending on the temperature of the water, you might choose not to include a pre-stretch at all or, at least, to modify it by using dynamic muscle and joint preparation instead of a static stretch. Studies indicate that static stretching can reduce muscle contraction ability and performance. Thus a dynamic stretch might be more appropriate if the exercise session is focused on power or agility, such as specific athletic training formats. Some instructors prefer dynamic (active or rhythmic) stretching as opposed to static stretching because it is easier to maintain core temperature; however, it is imperative not to overstretch.

Dynamic stretches are incorporated into whole-body movement. Instead of holding the stretch, use slow, large range-of-motion movements to stretch the muscles (e.g., slow horizontal shoulder abduction, adduction to stretch pectorals and posterior deltoids or slow kicks front to stretch hamstrings, slow kicks back with knee flexed to stretch hip flexors and quadriceps). Dynamic stretching is generally preferred for athletic pre-competition and pre-practice and assists with power-focused or high-intensity training sessions.

Whichever method you choose, be sure to keep the core temperature elevated and the limbs warm. Both dynamic and static stretching are important aspects of exercise design, but good judgment on the part of the



fitness professional is necessary to determine which technique is most appropriate for the population, the program format, and the environment. According to the ACSM Personal Training manual, “There is no right or wrong answer as to when is the best time to stretch; it is based on individual preferences. Stretching may be performed just before or after exercise” (2007).

Whenever possible, the pre-stretch is a nice component to include, but it is something that can be safely omitted if the risks outweigh the benefits.

The third part of the warm-up is often called the **cardiorespiratory warm-up**.

The primary purpose is to gradually elevate heart rate and oxygen consumption in preparation for more strenuous exercise. It is a means of easing the body into exercise. The cardiorespiratory warm-up allows the body to perform more efficiently during strenuous exercise and makes the transition much more comfortable. It is recommended to include this phase of the warm-up process even if the main segment of the class does not target aerobic training. All forms of exercise will benefit from increased blood flow, increased oxygen levels, and joint lubrication.

Some instructors use the cardiorespiratory warm-up as a preview of coming attractions. New choreography can be taught at a slower pace. This might also be a time to include a social element, such as partnered water walking or other formation work. Children enjoy games that are moderately active, such as follow the leader or pretending to be different animals. In a sports training class, basic locomotor movements such as hopping, jumping, galloping, leaping, and skipping done in multiple directions creates an effective and fun warm-up that prepares the body for more strenuous programming. Whatever you choose, be sure that major muscle groups are prepared for the action to follow. If the combination of water and air temperature is not favourable for properly warming the body and preparing it for exercise, class might need to be postponed. If you are in an outdoor pool with cool water temperature and cooler air temperatures with a breeze, it might be impossible to complete a successful warm-up.

If participants are uncomfortable and unable to warm up, the class might become a negative experience.

Communicating and posting policies for class cancellation can help avoid confusion about when conditions are unfavourable for class. No one likes to cancel or postpone class, but if environmental conditions are unfavourable it is a wise choice to do so. Be aware of water and air temperature so you



can make an appropriate decision to modify your program format or to postpone class if conditions dictate.

The Conditioning/ Main phase

The conditioning phase of a class format consists of the main exercise phase.

Generally it is cardiorespiratory in nature, but not always. The conditioning phase might also focus on muscular fitness or flexibility, or sometimes all three components.

Cardiorespiratory Endurance Training

The format for cardiorespiratory endurance training can vary depending on the mode and type of training. Cardiorespiratory training can be done in a continuous, interval, or circuit class format. Each format challenges the cardiorespiratory and metabolic systems differently.

Movements can range from simple isolated movements to complex combinations and patterns. Of course, you want to consider your class population. Target the use of large muscles and perform movements at an intensity to promote oxygen consumption. The length of this component will depend on the ability, purpose, time frame, and intensity of the class.

Some examples for cardiorespiratory exercise might include jumping jacks in place, jogging forward with breaststroke arms; cross-country ski elevating out of the water; straight-leg kicks moving forward. Many formats can be chosen, from sport movement and aqua boot camp to dance choreography or kickboxing. We have given you lots of choreography ideas within your instructor online portal so please reference these.

Muscular Fitness Training.

The endurance component might target muscular fitness training as opposed to cardiorespiratory endurance.

Muscular fitness training includes exercises—performed with or without equipment—to target upper body, lower body, or trunk musculature. The intention is to overload muscles or muscle groups to improve muscular endurance and strength. Water temperature must be appropriate for a muscular conditioning class. If the water is too cold, participants will chill because they are not generating as much heat isolating muscles as they would be with total body movement.

It is not a bad idea that these programs can be taught in continuous, interval, or circuit formats to incorporate at least a few total body



movement segments during class to ensure body temperature remains in a comfortable range. Remember the principle of progressive overload when beginning a muscular training program. Do more repetitions with less resistance to promote endurance gains, and use higher resistance to fatigue with fewer repetitions to promote muscular strength gains. Muscular fitness conditioning stations can be alternated with cardiorespiratory stations in a circuit workout. You can also create a class format that uses only muscular fitness conditioning stations. Some instructors incorporate muscle isolation with full-body movement as an active rest component in an interval work/rest cycle. As is true for cardiorespiratory training, there are several format options for muscular fitness training and again we have given you lots of choreography ideas to use within your instructor online portal.

Aqua Yoga/ Pilates/ Flexibility/ Range-of-Motion Training

A third option for the endurance phase of a class format is to target flexibility and range of motion. You must still consider the importance of the thermal warm-up and progressive overload when choosing this type of class format. Because of the slower nature of movement in these programs, water temperature needs to be a little warmer. Enhanced flexibility and range of motion are the primary goals of this class. It is easy to forget the importance of range of motion in a fitness regimen and the role of flexibility as a primary component of fitness.

Yoga and Pilates programs have become very popular in land fitness. Many exercisers want this option for variety and to complement more vigorous cardiorespiratory and muscular fitness training. These programs also meet the needs of participants who just want physical activity or lower-intensity exercise.

These class formats open the door to less-active individuals wanting physical activity in a group environment and give you the opportunity to expand your clientele. Aqua exercisers have reflected this trend with the popularity of Pilates, yoga, stretching and relaxation programs in the water. Water adds a new dimension to range-of-motion and relaxation class formatting. As long as the water is warm and comfortable, buoyancy offers assisted stretching and the component of floating to enhance relaxation.

Water provides constant kinesthetic feedback. Many facilities with warm water pools offer these class formats. Vigorous cardiorespiratory formats in water temperatures above the recommended ranges lead to the risk of heat-related illness; however, a slower-paced range-of-motion class may be ideal.



Remember to add full-body movement or dynamic stretching segments to keep body temperature elevated.

We have given you choreography ideas for Aqualates within this manual and on your online video portal.

Cool- Down theory for your Aqua participants.

According to the ACSM (2006), a cool-down serves the following purposes:

- Provides gradual recovery from the endurance phase of exercise
- Permits appropriate circulatory adjustments
- Permits the heart rate and blood pressure to return to near resting levels
- Enhances venous return, reducing the potential for postexercise hypotension or dizziness
- Facilitates the dissipation of body heat
- Promotes more rapid removal of lactic acid
- Promotes flexibility in the poststretch

In most aqua fitness programs, the cool-down consists of two parts: the cardiorespiratory cool-down and the poststretch.

In the cardiorespiratory cool-down, slow, lower-intensity, controlled movement is used to help the body recover to near resting values. Low-impact movements, or movements of lower intensity are often incorporated into the cardiorespiratory cool-down. The cooling effect of the water often assists with recovery, depending, of course, on the temperature of the water. The body's ability to conduct heat to the water speeds up the cooling process.

Programme Format Variations.

Below are other ideas of formats of how you could deliver your Aqua fitness class. The key is to keep your choreography and formats fresh to keep your participants engaged and interested.

Circuit Training

Circuit training is often referred to as station training. The stations can be cardiorespiratory, muscular fitness, flexibility, or any combination. The circuit format can be instructor-guided, where everyone in the class is performing each station at the same time. The instructor is teaching each station and each person in class does the same moves and uses the same equipment at the same time. The circuit can also be self-guided, with individuals or small groups rotating around the class from station to station. A circuit class can also blend these options; the instructor leads the class in a cardiorespiratory segment and then participants move in small groups to various equipment stations. Circuit training is very versatile and limited only by your imagination.

Interval Training

The aerobic segment of class is comprised of a series of work cycles that include high-intensity and low-intensity segments. The typical bell heart rate curve for intensity level is replaced with fluctuating cycles. Work cycle ratios (high intensity to low intensity) vary with the level and abilities of participants, anywhere from 1:3 to 3:1, usually measured in minutes. With advanced participants, the intensity may move into anaerobic training for shorter segments.

For deconditioned participants or certain chronic conditions, the intensity may oscillate above and below the lower aerobic threshold. An interval format is especially suited for well-conditioned participants. Interval



training is also recommended for sport-specific training because similar conditions are encountered during many athletic activities.

Dance Aqua

Some aqua programs are geared to more highly developed choreography sequences and may incorporate dance-oriented movements like Aqua Zumba for example. The class components remain similar; the difference is found in the level of complexity in choreography, which challenges the participants both physically and mentally. In this type of training, it is helpful to teach segments of the combinations during the warm-up to prepare participants for what is ahead. This also prevents unwanted decreases in intensity levels during the cardiorespiratory segment of class.

Deep-Water Fitness.

This format provides a nonimpact exercise option; most other aqua programs are low or reduced impact. Ideally, this class is conducted in the diving end of the pool because this allows for unrestricted, full range-of-motion movements for participants of all heights. The class components follow a similar course, but the program is designed so participants do not touch the pool bottom throughout the workout. Deep-water exercise can be extremely intense and appeal to very fit individuals, but it can also be used for rehabilitation and special population programming because no stress impact is incurred. Movements must be performed in opposition to develop balance and control.

Different types of flotation equipment are available to incorporate into this class setting to allow for neutral buoyancy. Some equipment is more appropriate than others depending on your participants' levels and needs. The final stretch may be performed in a buoyant position or in contact with the pool wall for stabilisation.

Aqua Step

Step training is a fitness program that incorporates a step (bench, platform) to step up and down during a portion of the class. This kind of training can be performed safely and effectively in a pool environment. Water depth must be appropriate, the pool slope should be gradual to prevent the steps from moving excessively, and adequate space is required depending on the size of the step. A good indication of appropriate water depth is to have water level at the elbows when participants stand on the bench. This means about chest depth when standing on pool bottom.



Typically, aqua programs use the step during the aerobic or muscle-conditioning segments. The step is an excellent tool to utilize in a circuit class at a few stations, especially if your facility has only a limited number of benches.

Striding (Water Walk and Jog)

Striding can be incorporated as a warm up or cool down for other class programs, or the entire class format may be designed around striding patterns. This format easily adapts to all water depths. The choreography is typically simple, making it easy to follow and easy to instruct. Striding programs can encourage social interaction among participants. With simple modifications of intensity and impact, this format can be designed for all levels of participants.

Aqua Kickboxing / Boxing / Combat Style

Again this could take on an interval or continuous training method but using movement patterns (kicks, punches, and blocks) into the water for a high-intensity, highly resistive, yet lower-impact exercise option. By using the unique properties of the water, in particular buoyancy and drag forces, an optimal cross-training program can be created for group exercise participants and personal training clients.

Aqua Yoga/ Pilates/ Tai Chi

Many instructors are adapting yoga postures, tai chi movements, and Pilates exercises for use in the pool. Water and air temperature must be appropriate to prevent chilling and achieve optimal benefits. Focus is on breathing techniques, core strength, muscle activation, body alignment, and flexibility. Pilates is a nonimpact program of strengthening and stretching exercises that involve precise muscle initiation and breath control. Developed by Joseph Pilates, this format targets the torso, referred to as the powerhouse, and every movement is precise and performed with a purpose. Tai chi is typically classified as a form of traditional Chinese martial arts. With its flowing and graceful movement patterns, tai chi transfers well into an aquatic environment, as long as the water and air temperatures are appropriately warm. Benefits of aquatic tai chi include balance, coordination, agility, flexibility, and mental focus. Yoga programs typically focus on alignment and lengthening of the spine while coordinating movement with breath. There are many styles of yoga, including Hatha, Iyengar, Vinyasa, and Astanga. Postures, or asanas, are



intended to quiet the mind and enhance focus. Practicing yoga in a warm-water pool increases static strength because isometric contractions are required to maintain postures. The overall goal is to train the body, mind, and spirit simultaneously to restore balance

Working in Water - Theory

Before you start teaching Aqua, it is really important you understand the difference between teaching your normal classes in a studio or gym and teaching in water so this next section goes into detail on each section you need to comprehend before you start to teach.

The Water's Inertia

If participants in class are moving in a particular direction for a time and then turn around, the group will feel that it is moving upstream. Because of the group's motion, the water has begun to move with the group. But when the group turns, the inertia of the water makes it continue in the original direction at its previous speed. The group turns, but the water keeps going. The water's inertia can be used to increase exercise intensity. If many steps are taken forward in a straight line, the water begins to move in that direction. When you then reverse body direction, you will be trying to stop and then reverse the water motion, just as you have with the body motion. This combined effect increases exercise intensity. If you jog forward and then straight back, you are not only applying force to overcome body inertia but to overcome the water's inertia as well. Incorporating traveling movements in your choreography increases energy expenditure by increasing total body inertia and the water's inertia.

Drag

Movement in water tends to slow down quickly.

Drag is the resistance you feel to movement in the water. The results of drag makes for a very different loading to the muscles during exercise in the water compared to land exercise. On land, your muscle load decreases when you achieve a constant speed. In the water, you have a constant muscle load provided by the water through full range of motion.

Speed & intensity

In water exercise, the resistance of the water increases with the speed or velocity of movement.

Many instructors who are unfamiliar with the water's properties exclusively use speed to increase intensity. Although increasing speed does increase intensity, it is highly questionable as to whether it is the most effective way to alter intensity.

When speed is increased, range of motion and body position can be compromised. The most effective way to train a muscle is through a full range of motion. It is also difficult to push against the water's resistance in all directions of movement when using fast, ballistic movements. Additionally, some individuals are not able to maintain movement at speeds high enough to alter or influence intensity.

The instructor needs to offer alternatives that provide a full range of motion with individually styled modifications based on the physical laws.

Options include

- Hand position (drag shape),
- lever arms (arms and legs),
- Adding impact (acceleration),
- using impeding or assisting arms (action/reaction),
- Traveling (total body inertia).

There are other options and combinations of options as well. Altering intensity with these options does not compromise range of motion or safety. Individuals could work through a full range of motion against the water's resistance in all directions and promote muscle balance. Using the laws and principles of the water can help individualise intensity alterations through a variety of adjustments and is a much better option than merely adjusting speed.

Buoyancy

Archimedes' Principle:

The loss of weight of a submerged body equals the weight of the fluid displaced by the body. Archimedes' principle describes the buoyant property of water. When standing in water, you are subjected to two opposing forces: the downward vertical force of gravity and the upward vertical force of buoyancy. The magnitude of buoyancy depends on the size and density of the submerged body.

Buoyancy provides many benefits for water exercisers. It decreases the effects of gravity and reduces weight bearing or compression of joints. Many people who cannot exercise on land bearing their full weight can exercise comfortably and vigorously in the water. Buoyancy also depends on the depth of immersion because being immersed deeper displaces more water. A body immersed to the neck bears approximately 10 percent of its body weight. A body immersed to the chest bears approximately 25 to 35 percent, and a body immersed to the waist bears about 50 percent. These percentages vary with body composition and gender. Increased kinesthetic awareness and increased muscular stabilisation are required the deeper you immerse in the water. Most people can exercise comfortably at chest or armpit depth because they still experience enough body weight (effect of gravity) to control their movements. For shallow water programs, movement speed and control are hindered when immersed past armpit depth. If the centre of gravity (typically in the hip/waist area) and the centre of buoyancy (typically in the chest area) are vertically aligned, the body is relatively stable in the water. When suspended in the water, your body turns around your centre of buoyancy. Although centre of gravity is not as important a consideration when suspended, proper alignment of the body remains important. In vertical suspended exercise, proper body alignment increases the effectiveness of the workout and reduces risk of injury.

Hand Positions

Surface area created by the positioning of the hand while moving the arm through the water affects the amount of effort required by the associated working muscles.

The hand can serve as a paddle to scoop more water or can be positioned to minimize its pull in the water. The size of the surface area of the hand as it moves through the water and its shape determine how much water the hand pulls and how much resistance is created. A hand closed in a fist or a hand sliced sideways through the water creates minimal resistance. The hand position used for most swimming strokes (an open, slightly cupped



hand with fingers relaxed and slightly spread) is the most effective at pulling water.

Many beginners ignore or do not understand hand positioning in the water and thus do not use the water most effectively.

Teaching participants to position their hands to work the water will increase the effectiveness of the workout.

Conversely, less demanding hand positions are useful for participants with weak upper bodies and core stabilisers, shoulder or joint problems, arthritis, or any other musculoskeletal condition that might be aggravated by adding resistance.

Aqua Fitness Equipment.

An increasing variety of fitness equipment is available for use in aqua fitness. Some of this equipment is used in land fitness and can be brought into the aquatic environment, whereas other equipment is developed specifically for use in the water.

Examples are listed below -

- Webbed gloves
- Foam hand bars
- Plastic paddles
- Foam noodles
- Foam belts for around the waist
- Foam cuffs for on the arms or ankles
- Balls
- Various hand-held weighted dumbbells
- Aquatic spinning bikes

Before adding equipment to your aquatic program, you should recognise the purpose of the equipment, be aware of all safety considerations, and understand how the equipment will alter training results.



Aqua equipment falls into five general categories:

- Buoyant • Drag • Weighted • Rubberised • Flotation

It is vital that you trial and test the equipment you are using in the water before you teach with it and **ONLY** use equipment which is designed to be used for exercise and fitness.

We recommend that you practice your choreography in the pool with the equipment you wish to use so you can actually **FEEL** what your participants will feel and understand how you may need to alter the speed again when using it.

We have given you choreography ideas within this manual and on the online portal for using equipment within your Aqua session but always test out the moves first and make sure all equipment is in safe and good working order before you use it.

All equipment should be rinsed down with clean cold water after use to prevent any chlorine damage.

Instructor Form and Alignment.

A good example is the best teacher, and as an aquatic fitness instructor, your teaching form provides the example.

By demonstrating proper alignment as you lead the class, you encourage participants to do the same. Maintain correct body alignment, good posture, precise and controlled movements, and proper tempo at all times— whether you are in the pool or on the deck.

Remember your class may not always be able to hear you over the sound of the water and the music so visual cues on body position are vital.

Continuously monitor your participants for correct alignment and form as well. Specific form cues should be incorporated to reinforce the desired position or to alert participants to the improper position of the body or limb. It is generally preferable to use positive rather than negative form cues, such as, “Brace the abdominals and align the spine” rather than “Don’t arch your back.”

Motivational cues can also help keep participants performing the movements correctly. Encourage good behavior through positive reinforcement.



Remember to always incorporate both verbal and visual cueing to have the best effect.

Cueing

Cueing is a specialised form of communication. It is the act of communicating information to instigate action. When an instructor uses cueing techniques effectively, a class flows and participants are relatively unaware of how movements develop from one to another. The sequences just seem to fit together.

Learning to use different types of cueing and various delivery methods can be difficult for most instructors. It takes practice and experience. Mastery might not be achieved until after years of teaching.

Cues are used to serve several purposes,

- Form and safety cues address proper posture, safe joint action, appropriate levels of force and intensity, breathing techniques, and muscle focus.
- Motivational cues encourage participants to act in a positive manner, mentally and physically. Participants should feel positive about their



bodies' capabilities and be eager to challenge themselves within safe boundaries and without the stress of competition.

- **Transitional cues** inform participants that a change is about to take place and explain how to make that change safely and effectively. Timing is very important so that transitional cues are delivered early enough to educate but not so early that the timing of execution is confusing.

Transitional cues are discussed later in the chapter.

- **Directional cues** communicate the desired direction you want your participants to travel or the direction you want them to move their bodies. Examples include move forward, backward, sideward, or move up, back, or up and back as if on a rocking horse.

- **Numerical cues** communicate the desired repetitions of each movement or the number of remaining moves before a change.

- **Movement or step cues** tell participants the basic movement being performed (e.g., jumping jacks, rocking horse, jog, etc.).

- **Footwork cues** describe more specifically how the lower body should be used. Usually footwork cues are expressed as “right” and “left.”

- **Rhythmic cues** express the musical counts used during movement.

Tempo changes and complex counts are considered rhythm cues (e.g., land tempo, water tempo, half water tempo, cha-cha [1, 2, 3, & 4], single-single-double).

- **Relaxation cues** are not only for the cooldown and stretch but also valuable during aerobic and muscular training in order to elicit the perception of a comfortable exercise environment while still challenging participants. Like motivational cues, relaxation cues are perceived mentally and physically. An example is, “Relax your shoulders.”

- **Imagery cues** can be used during intense movement to help participants take a mental break from the work, possibly allowing for a higher intensity for a longer period of time. They can also be used to facilitate relaxation and stretching.

- **Feedback cues** are used to maintain an open line of communication between instructor and participants. Inquiring about participants' level of fatigue, comprehension of the described movement, alignment, muscle focus, and so on gives the instructor valuable information for modifying the daily class plan and class goals. After considering the type of cue, next consider how to deliver the cue.

There are three primary ways to deliver your cue: audible, visual, and touch (tactile).

In Aqua Fitness classes we focus on Audible and Visual.

Audible Cueing



Audible cueing is the most common among instructors. Any cue absorbed through hearing, including spoken words (verbal), whistles, claps, musical changes, bells, and so on. Make the most of each word spoken when using verbal cues. Use your voice sparingly to avoid vocal chord damage.

Verbal cueing is most effective when it

- is given early enough to allow for reaction time,
- is limited to one to three carefully chosen words,
- is spoken at a rate that can be easily understood, and
- varies in tone.

When you are counting a combination for participants, consider counting backward, such as “8, 7, 6, 5, 4, 3, 2, 1.” On the last two counts, tell participants where they want to be. Because 3 rhymes with “where they want to be,” this is a good memory trigger for a new instructor. Leaving the last two counts for a transitional cue gives participants forewarning that the combination is about to change or progress. Some instructors do this by counting forward, saving count 7 and 8 for the verbal cue. It might also wake participants up from a choreography “stupor” and put them on notice to pay attention for something new about to happen.

Transitions that involve changes in movement planes, especially those incorporating long levers, might require you to cue earlier, perhaps on the fifth or sixth count. Keep in mind that the added resistance of the water slows down reaction time.

Visual Cueing

Visual cues might not be used as often by an instructor as audible cues but are actually the type of cue that most participants notice. There are a higher percentage of visual learners as compared to auditory or tactile learners. Plus, pool acoustics are notoriously poor, making it difficult for participants to understand spoken words. Thus visual cueing is an important skill to learn.

Visual cues constitute any cue absorbed through seeing, including hand signals, eye contact, facial expressions, posture, physical demonstration, and body language. As you use visual cues, watch your class for reactions. If you receive the action you desire from your participants, then your visual



cue was effective and successful. Video recording your visual cueing while instructing a class is a great way to evaluate and improve your technique.

Guidelines for Deck Instruction

Choreography To Go recommends deck instruction as the preferred method of leading aqua fitness in most situations.

Deck instruction provides the highest level of safety for the participants by allowing better observation and quicker response to emergency situations.

Deck instruction also provides greater visibility of the aqua fitness professional to the participant and the participant to the aqua fitness professional.

The safety of the aqua fitness professional does not have to be compromised if proper precautions are taken.



Suggestions for safe deck instruction include:

- Avoid high impact movement demonstration
- Utilise a chair for low impact demonstrations and balance needs
- Consider non-impact teaching techniques
- Wear proper footwear for deck instruction When available, use a teaching mat to reduce impact stress
- Wear appropriate clothing for the environment in which you work
- Drink sufficient water to stay hydrated and protect your voice
- Use a microphone when available or incorporate non-verbal cues
- Position the music source where it provides the least interference with vocal cueing
- Use caution when utilising any electrical source, including sound systems, near a pool due to potential hazard of electrical shock
 - Lead the workout rather than participate in the workout
 - Train for endurance, strength, flexibility, and balance within your personal workout program to assure the ability to perform safely on deck.

Be the Best Coach

There is a difference between leading the workout and getting a workout. Though there is no question that certain physical and psychological benefits are obtained whenever an instructor teaches, there is a significant difference between teaching to the group's level of fitness and performing at the instructor's level.

Always remember that the class belongs to the participants.



It is important for an instructor to reserve enough time and energy for a personal workout. Avoid using your class as your workout. Your first and foremost role as an instructor is to provide an educational experience for your participants.

As previously discussed, this involves providing a safe, effective, enjoyable experience. This is what motivates your participants to attend. Participate in someone else's class or develop a personal workout routine to increase your level of fitness. This is an excellent way to role-model the benefits of variability or cross-training. Just as the principles of specificity apply to participants, teaching the same programs at a similar level can apply to instructors as well. It simply does not provide a balanced workout.

An instructor needs to get in shape to teach in order to avoid acute and overuse injury. Leading the workout means the instructor is not matching participants repetition for repetition but rather is watching and correcting them by pacing the deck or moving among the class.

A class can most effectively be taught to the midrange ability of that particular group. Choose the level where the majority of participants seem to fall (beginner, intermediate, or advanced) and teach to that range while offering modifications to increase or decrease intensity to address everyone. This might not necessarily be your personal ability range. While it would be nice to assume that everyone reads class descriptions and comes to the class that meets their needs and abilities, it is common knowledge that many programs are "zoo programs." This occurs when participants of all sizes, shapes, and abilities gather together because the day and time are right for them. This of course creates a challenge for the instructor.

Understanding and applying the principles of the water and expanding your teaching techniques helps you effectively manage a multilevel class.

Music

Music can be used for motivation, maintaining cadence, and achieving a desired intensity. Although music is not required for aquatic fitness



programming, an instructor might want to take advantage of the positive reinforcement that music can provide.

According to Dr. Len Kravitz, in “The Effects of Music on Exercise” (1994), music can provide many benefits to exercise. Participants perceived better performance when music was a part of their fitness program, although actual performance might not have shown improvement. Music can positively affect the mental attitude of participants during exercise, so proper music selection is important. Music tends to evoke pleasant associations with the fitness program. In situations in which the acoustics are extremely poor, adding music might create an environment in which it is more difficult to learn and teach.

For example, special population groups with limited hearing capabilities might find that music prohibits them from understanding the instructor’s verbal cues. Instrumental music selections and emphasis on nonverbal cueing techniques might help offset these potential drawbacks to music within an aquatic fitness class. Instrumental selections might be preferable to reduce acoustical problems because verbal cues will not have to compete with lyrics. This type of music often appeals to intergenerational programs.

Other considerations are the music preferences of participants, ability levels of the class, and the pool environment. The depth and slope of the pool will affect the speed of movement as well as the complexity of your choreography. When using music, we suggest approximately 125 to 150 beats per minute (BPM) at half-tempo for traditional shallow-water aerobics activities. Some instructors choose to use alternative music tempos, but choreography must be appropriate.

Half-tempo simply means counting every other beat. Music of this tempo is motivating and allows for full range of motion and long-lever movements. This speed of execution also enables participants to fully benefit from the water’s unique properties.



Movement tempo

We incorporate three methods of movement when exercising in the pool: land tempo, water tempo, and half water tempo.

Using these three methods ensures that proper intensity is maintained during the aerobic portion of the workout and allows for full range of motion in movements.

These three tempos provide variations for each movement. A knee lift can be performed at land tempo, water tempo, half water tempo doubling the knee, or half water tempo with a bounce.

The tempos can also be combined to add additional variety. An example of a combined-tempo knee lift is performing four water tempo knee lifts followed by two knee bounce centers.

Land Tempo (LT) Recommendation: 125 to 140 BPM used at tempo. When using land tempo movement, you might not want to exceed 140 BPM because of the resulting reduction in range of motion.

Cued: Often cued as “double time” or “land speed.”

Some instructors increase intensity simply by increasing speed. Although this is effective, the quality of movement in the aquatic environment starts to deteriorate as tempo increases. Land tempo movement is the same speed of movement used on land. Impact or movement occurs at each beat.

Excessive use of land tempo in the water is not recommended.

A muscle is worked most effectively through its full range of motion. Land tempo reduces range of motion considerably, reducing the muscular conditioning effectiveness of the exercise. One of the positive qualities of the aqua environment is the resistance provided by the water for movement in all directions. Faster speed of movement reduces the exerciser’s ability to push against the water’s resistance in all directions of movement, reducing the water’s natural quality of providing muscle balance. Use land tempo prudently to avoid increasing risk of injury caused by poor alignment or fast transitions. We are not suggesting that land tempo be completely avoided in aqua programming. Well placed land tempo movements can add variety and fun to aquatic choreography.



When considering using land tempo in the aquatic environment, keep the following recommendations in mind:

- Land tempo should be used sparingly and not constitute more than 10 to 15 percent of your programming.
- Consider the use of one-footed and short levered moves for land tempo. Long-levered movements can cause additional joint stress at faster tempos.
- Do not perform movements that combine environments. Keep the movement all under the water or all above the water.
- Consider using land tempo movements in place. Traveling with fast movement might increase injury risk.
- Be sure that land tempo movements do not sacrifice alignment or joint integrity.
- Combine land tempo movements with water and half water tempo movements in such a way that allows for slower, safer transitions in neutral alignment.

Water Tempo (WT)

Recommendation: 125 to 150 BPM used at half tempo (62 to 75 BPM with a metronome).

Cued: Often cued “singles” or “water tempo.”

Water tempo is defined as “an appropriate rate of speed used in the aquatic environment to allow for slower reaction time and full range of motion in water choreography” (See 1998). It is recommended that the land tempo of 125 to 150 BPM be used at half-tempo. This equates to a tempo of 62 to 75 BPM on a metronome.

As stated in the definition, water tempo allows for full range of motion, balanced muscular conditioning, and additional time for safe transitions. Most of your aqua programming exercises should be comprised of water tempo movements combined with half water tempo movements.

Water tempo allows full range of motion for long-levered movements. When the tempo approaches the higher end of this recommended range, it might become necessary to use shorter levered movements to maintain full range of motion.

1/2 Water Tempo (1/2W)

Recommendation: 125 to 150 BPM used at half- tempo with a bounce added every other water beat.

Cued: Often cued “doubles,” “bounce center,” or “half water.”

Half water tempo is simply performing water-tempo movements with a bounce every other water beat. This bounce is often, but not always,



performed high impact in the water. Half water tempo adds variety to aquatic exercises and the bounce center (BC) can be used to transition from one move to another in neutral alignment.

It allows for “more concentrated muscular force in all directions of movement and encourages a greater range of motion” because of the reduction in joint speed (Denomme and See 2006).

There are several options for placement of the bounce, depending on the move.

- For a jumping jack, the move is performed jump out, bounce at the out position, jump in, bounce at the in position (cued as a “double jack”).
- A cross-country ski could be performed by jumping the feet apart front to back, bouncing in this position, jumping and switching the feet front to back, and bouncing in this position (cued as a “double ski”). It can also be performed 1/2 water tempo by jumping the feet apart front to back, jumping and bringing the feet together to bounce center, jumping with the opposite feet front to back, and then jumping to land with the feet together again (cued as a “ski bounce center”).
- A knee lift, and most other one-footed moves, can be performed 1/2 water tempo by lifting the right and bouncing one time with the right knee lifted, switching to the left knee lifted, and bouncing with the left knee remaining lifted (cued as a “double-knee lift”). It can also be performed by lifting the right knee, bouncing center with both feet, lifting the left knee, and bouncing center with both feet (cued as a “knee bounce center”).

Letting your clients know what to expect.

In week 1 we recommend you start basic with moves that will help your clients feel confident in the water, giving options in the lines of option 1 (beginner) option 2 (little harder) option 3 (harder).

Always advise to work to their level and remember to listen to their body throughout. Never do anything that causes them acute pain.

Some of the exercise may cause a light discomfort within the days following the workout, especially if they are new to exercise or new to Aqua.

You should also make them aware that they may experience DOMS (Delayed Onset of Muscles Soreness). This is where you may experience a slight soreness in the muscles they have used a couple of days after they have exercised with you, this is just where they have worked muscles they may not have used before or in a long time, it will feel like a dull ache and they may get this in their back and abdominals to start with. Making them aware that it is nothing to worry about and normally goes within a couple of days is important as confidence is key with this programme, as if they have experienced severe pain before, they will fear returning to this state.

At any time during the class if they feel unwell they need to notify you and the life guide on duty. Stop exercising, get out of the pool safely and seek medical attention.



Choreography ideas Aqua Maniacs

Run on spot - push forward and back with Woggle - Push up and down
Full circles in both directions

Take woggle in Right arm and push down (sagittal plane)

Push out to side and down (frontal plane)

Push away and across - add knees in

Extend outside leg using same arms

Bring woggle into out side knee and push leg and arm away, across on diagonal (transvers plane)

Central - Bring woggle in and away to left leg

Alternating pushing straight legs away behind you

Kicks forward bringing woggle up to sky and down to feet

Alternate 2 legs back 2 legs forward

Spotting dogs with woggle in right arm in all 3 planes (forwards, side, across)

Place woggle under right foot - pump leg as quick as you can moving knee up and down - slow and quick time forwards, side and across body - in all 3 planes

Push knee out to side and across

Take leg out to side and across body

Sit with woggle under you like a swing - alternating kick legs keeping knees fixed as best you can, change legs to double legs out and in, take double legs wider, alternate forward and out with double legs and alternating

Repeat from top on Left side



Sea horse on right leg on spot x8
Rotate round in circle with pushing wobble out and in
Repeat on left
Repeat with extended legs

Kick combination - right leg forward, left leg back, swing left leg forward,
right leg back, swing right leg forward and repeat
Same kick combination but with wide legs

Float laying on front with wobble pushing down and into chest as quick as
you can (keep legs up behind you)
Bring both knees in together to wobble then push away and extend wobble
away

Place wobble behind you, lay back, let legs come up and bring knees into
tummy together then push away as quick as you can
Repeat but with knees going to opposite sides
Repeat with 3 count combination - centre, side, side

Jacks with feet sliding along floor

Tie wobble around waist and spin round in one direction x4 with feet off
floor - repeat on other side

No wobble - lay back then bring both legs back behind you without touching
floor, use tread water arms - repeat as many times as you can

Jump rope with wobble
Stand on wobble - balance with arm line
Stand on wobble - snowboard (lift one foot and then other)
Stand on wobble - double leg jumps

Partner work - wobble run, snake with different arms, knee lifts to partner's
hands, skipping

Press ups on side of pool, kicks forward and behind, knee tucks into side of
pool

Functional H2O

Single, single double leg kick back in sagittal plane



Change double to leg out in frontal plane
Change double to cross the back in transvers plane
Change double to cross in front
(repeat with legs kicking in front)

Knee lifts, kicks, runs and squats -all sagittal, frontal, transverse

Jumps - forward, slalom, turning

Arms with woggle pushing forwards, across and sideways - repeat with legs in same planes of motion and then in different planes

Arms with band looped around hands - forwards, across and sideways - repeat with legs in same planes and then different

Tricep extensions with band around hands behind you - change to triep push back with rotation

Band around thighs - spotty dogs, jacks, bunny hops, leap frog

Band around ankles - knee lifts front, side, kicks forward, tick tock, behind, spotty dogs, leap frog, bunny hops, jacks

Running along pool forwards, backwards, gallops to side

Aqualates / Pool Pilates

Swimming - standing on woggle - bring opposite hand to knee through the water

Single leg stretch with woggle behind back

Double leg stretch - laying on back with woggle behind or with woggle push down and laying on front

Scissors - side lying or standing with woggle tied round waste

Corkscrew standing with lower body while woggle tied round waste

Single leg circles with other foot standing on woggle

Bicycle - horizontal and vertical

Plank with woggle pushing down. Leg moving out to side

The hundred - sitting on standing on woggle

VW with swim leg standing on woggle with bands around hands

Standing crunch with band around hands (with or without standing on woggle)

Standing spine twist on woggle with band behind back

Saw

FINAL POINTS & ASSESSMENT CRITERIA

The rewards of teaching Aqua Fitness far outnumber any extra effort involved.

This is a group of people who are grateful, consistent, loyal and supportive and who truly want to get fit, work hard & have fun.

Assessment

So now you have fully read and comprehended this in-depth manual & you are now ready to complete your assessment to gain the full certification in Aqua Fitness

In order to successfully achieve your certification in Aqua Fitness you will be required to complete the following -

- Gain full marks on the open book exam paper - this paper consists of 40 multiple choice questions
- Submit a detailed 6 week session plan showing how you would progress a class over a 6 week period, including correct exercises, BPM & teaching tempo, teaching points and adaptations and progressions for your warm up, main exercises and cool down. (An example template will be sent to you via email from your tutor should you wish to use it).
- Gain 70% on your instructing worksheet.

You are required to complete all parts of the assessment within 4 months from when you enrol on the course. If an extension is required, then this is chargeable at £15 per month.



If your work refers within the 4 month deadline then reattempts are free of charge, if the learner refers outside of the 4 month deadline then a £25 resubmission fee is in place.

If you have any questions regarding the assessment criteria, please email Kelly and all work should be sent to -

Kelly Reed-Banks

12 Hawthorn Way

Burwell

Cambs

CB25 0DQ

Or email - kelly@choreographytogo.com

We hope you have enjoyed completing this advanced CPD course to support your and wish you all the very best with your future in teaching Aqua Fitness

Rachel & Kelly x

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