

# CALA

Canadian Aquafitness Leaders Alliance Inc.

Revised: January 24, 2006











Handout



## Benefits of Aquafitness




### Who benefits from aquafitness?

#### Everyone who tries it!



-  Athletes such as: runners; football, basketball, soccer, rugby and marathoners, swimmers, weight lifters, walkers, gymnastics and skiers
-  Dancers such as ballerinas
-  Baby boomers, youth through older adults
-  Health/wellness conscious persons
-  Rehabilitation patients eg: breast cancer, accident recovery, arthritis, multiple sclerosis, osteoporosis, cardiac, sport injuries and joint rehabilitation to mention a few
-  Weight, strength, stature and mobility challenged people of all ages
-  Pre and post natal
-  All nationalities
-  Male and females
-  Fitness enthusiasts looking for cross training or who are unable to exercise due to weather conditions.



### What are the benefits of exercising in water?

-  Multiple muscles can be worked at the same time or you can isolate specific muscles.
-  Each participant is able to work at their own intensity unlike land sessions where you feel it is necessary to keep up with the instructor
-  Participants feel safe in the water - they are not going to fall and hurt themselves. They work in water that is at a level comfortable to them whether deep and/or chest deep

#### Positive Effects of Resistance

-  Accommodation: by changing and/foot configuration, lever lengths or speed of motion, exercise intensity is easily altered to adapt to a variety of participants needs. Changing range of motion will affect total work done.
-  Multidirectional resistance: resistance to movement in all directions fosters balanced core stability

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-  Intensity: The force and energy required to move through water develops muscle and bone strength as well as cardiovascular and muscular endurance
-  Dampening effect: Movements are slower and less likely to be jerky or ballistic in water

### Positive effects of buoyancy

-  Buoyancy - water decreases the amount of shock which is transmitted through the bones, joint and ligaments on landing
-  Buoyancy decreases the effect of gravity: body weight is reduced by 75% to 90% (chest to neck level immersion). An individual who weighs 70 kg on land will weigh about 7 kg in neck deep water. Special populations including the obese, the elderly who may have fragile bones, the arthritic, the disabled, the injured athlete, as well as pre- or post natal women will exercise in relative comfort and ease in the water.
-  Decreased gravity results in decreased joint loading. This allows increased range of joint mobility and resistance to joint injury can result.
-  The force of buoyancy assists venous return. On land the downward forces of gravity pushes the blood toward the feet. The cardiovascular system works against gravity to return blood to the heart. In the water, the upthrust of buoyancy counteracts the downward pull of gravity, thus assisting venous return.
-  This will contribute to lower exercise hear rates during aquafitness



### Positive effects of hydrostatic pressure

-  Venous return and cardiac functions are greatly enhanced by Hydrostatic pressure
-  Hydrostatic pressure assists participants to exercise more vigorously with less strain on the cardiovascular system and a reduced training hart rate for a given workload
-  Hydrostatic pressure reduces swelling in inured or edematous (swollen) joints or limbs below the water.
-  The pressure of water on the chest wall creates a training effect for the respiratory muscles.

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### Positive effects of turbulence

-  Currents and eddies in the water massage the skin, promoting circulation and relaxation
-  Turbulence contributes to the resistance felt in aquatic exercise
-  The core muscles become stronger as participants learn to stabilize their bodies against turbulence
-  Exercises can be designed to work with or against turbulence, thereby increasing or decreasing intensity.



### Positive effects of thermal conductivity

-  The water 'wicks' away excess body heat during exercise creating a cool comfortable workout
-  Blood that would be shunted to the skin for cooling is available to the working muscles.
-  The heart does not have to work as hard if the body stays cool
-  Pool temperatures can be altered to meet special needs groups such as arthritis or rehabilitation (30 to 38 degrees Celsius) or intense athletic training around 27 degrees Celsius.
-  Studies have proven that with regular water exercise there is significant increase in muscular strength and endurance, flexibility, cardio respiratory conditioning, and decreased body fat. Beyond the physical advantages there are mental and spiritual improvements. People feel better about themselves and gain confidence in and familiarity with their body.
-  Through the use of the magical properties of water, the participants are able to challenge their nervous and respiratory systems. Through gaining control of their balance and agility, coordination and endurance they are able to better be in control of their lives. Water resistance is the ideal work environment for strength-training. By using the water's resistance rather than equipment the body receives an all over workout while working an isolated and corresponding muscle group. The water's buoyancy reduces the joint impacts.
-  During the summer months we are less motivated to participate in fitness activities because of the heat, but conducting your workout in the pool is comfortable, refreshing, and healthy.
-  Aquafitness is something we can all do anytime and anywhere there is water. Why not give aquafitness a try. You will like it as either your only exercise program or an alternative to your current program.