

Vol 1, 2002 CEC ARTICLE:

Adapting Kickboxing to Aqua
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PHILOSOPHY

Boxing and Kickboxing aerobics has become very popular within the exercise industry. It offers more explosive, interval, and anaerobic training than the normal aerobics classes. It can be a great cross-training tool for the fit/healthy group fitness participant. However, it is my philosophy to that because boxing and kickboxing have inherent muscular imbalances and higher risk of injury that this type of workout should not become the dominant exercise format for the general participant who has fitness as the goal rather than martial arts. It is also my belief that although the patterns, forms and structure are being adapted for a group fitness class, the underlying logic for the forms and patterning should follow the original sports as much as possible.

This philosophy has merit for two reasons. First, the class actually teaches something about and pays respect to the original sports and becomes a true “Kickboxing Aerobics” class as opposed to an “Aerobics Class with some Kickboxing like Moves”. The instructor will have better credibility if they understand something about the original sports.

Second, the original sports have some underlying safety mechanisms that some instructors don’t understand and ignore. This can lead to increased injuries among the participants. Safety should never be sacrificed for creativity. Only through education and understanding can an instructor safely create new combinations and class structures from the basics of kickboxing. Therefore, I propose an eight-step process for effectively and safely incorporating sports specific moves into group fitness classes:

1. Understand the objectives of the original sport.
2. Understand the proper form for the moves and their purpose.
3. Analyze the sport for safety concerns, including muscle balance, overuse, alignment, and possible limitations for specific populations.
4. Develop warm-up and cool-down stretches that accommodate the different muscle groups used in that sport.
5. Develop exercises that help teach the skills needed for that sport.
6. Develop exercises that help correct for unbalanced muscle group and improper alignment issues inherent in the sport.

7. Develop modifications that maintain as much of the sport as possible, but adapt for group fitness and the medium (land or water) you are teaching in.
8. Develop patterns that are consistent with the original goals of the original sport.

REVIEW OF BOXING/KICKBOXING

A. Objectives

- training the body for prolonged conflict,
- trying to end the conflict as soon as possible,
- combining offensive and defensive patterns, and
- being unpredictable.

Group fitness/aerobic classes try to promote:

- muscular strength,
- muscular endurance,
- muscular balance,
- aerobic capacity,
- aerobic endurance, and
- flexibility.

Because of the nature of boxing and kickboxing the moves and patterns do not promote muscular balance, have a higher degree of risk associated with them, and require a higher level of fitness from the participant. Two of the primary benefits of boxing and kickboxing are that they generate explosive power and increase balance skills. Balance can be increased by slowing down the pace so proper form can be emphasized. Pausing midway through a technique and exploding at the end works the muscles that provide balance.

B. Advantages and Disadvantages

Advantages

- Higher Intensity workout
- More fast twitch muscle work
- More explosive and anaerobic moves.
- More reactive strength training.
- Mimics another sport.
- More upper body than traditional group fitness classes.

Boxing and kickboxing sports have several different forms, but a unifying underlying objective. They teach offensive and defensive techniques for one on one combat situations. Martial arts also have patterns and techniques for multiple opponents. This differs from the general group fitness class where the objective is overall fitness.

The objectives of combat sports include:

- positioning the body to protect it from attack,

- generating power and moves to attack,
- strategically resting and exerting,

Disadvantages

Not inherently muscularly balanced
 Not proper alignment
 Should not be done every day (Use cross training principles)
 Higher risk of injury
 Not appropriate for a larger fraction of the population

APPLICATION TO WATER

A. Warm-Up

Aqua kickboxing requires a lot more upper bodywork than classic aqua aerobics classes. Therefore we will add 3 upper body active stretches and two low back active stretches in the warm-up in addition to the 5 lower body stretches (calf, quad, hamstring, deep 6 rotators, and IT band). These are

Pectorals and Trapezius (Arms wide at surface of water, push and pull front back)

Rotator Cuff Internal and External (Elbows into waist, forearms parallel to surface, rotate in and out)

Rotator Cuff and Lower Trap (Done partially out of the water. Top of the arms parallel to the surface and to the sides of the body. Elbows at a 90° angle, Rotate up down.)

Low Back 1 (With knees slightly bent, shoulders stay still, rotate the hips around in a slow circle several times, reverse direction.)

Low Back 2 (Hands on the quads, knees bent, slowly round and arch the low back several times.)

The warm-up should also include the three full body moves (side squats, lunges, and goose steps), the rehearsal moves, and the rhythmic limbering.

Balance and Form –

Knee Raises – Standing upright in proper alignment. With the supporting leg knee bent. Lift and lower one knee. Foot flexed, Repeat lifting to the ball of the foot of the supporting leg. Repeat turning the leg that is lifting either in or out, but still in front of the body, the hips must lift.

Speed –

Fast Feet – Standing upright in proper alignment. Fast feet, moving forward, backward, right, left, in and out, on heels, on toes.

Speed Bag- In a front stance, fists circle in fast tight circles with forearms parallel to the ground. For singles each arm, the arms stay out and the body stays facing forward. For multiples on each arm, the nonpunching arm is at the side in a protective position and the lead shoulder is forward.

Jump Rope- Feet together with the elbows in and the forearms out parallel to the ground circle the wrists. Do every arm variation you can imagine that you would do with a real jump rope. Doubles, fast, side to side, backwards....

Muscular Balance Compensating Exercises-

External Rotator Cuff- Standing in alignment with the elbows by the waist, hands together in front parallel to the surface of the water, leading with the back of the hands rotate our hard. Open the elbow out and slice the hands forward back to the starting position.

B. Modification of Hand Position

There are several modifications for the hand positions. First, since we want to punch in the water and not break the surface, the hands are lowered from the cheekbones to the chest. Second, since surface area or surface roughness increases intensity in the water, the hands can be opened to a slightly cupped position. Caution: when using gloves a tight fist is not recommended (especially with neoprene gloves) because the forearm muscles will be contracting isometrically to clench the glove the entire class.

C. Skill Teaching and Muscular Balance Exercises

Not all participants may have the required coordination, muscular strength, or flexibility to quickly pick up the correct forms for kickboxing. Also we need to give the elbows, knees, and back rest periods within the workouts. The following exercises should be added throughout the workout for the following reasons:

1. To allow the elbow, back, neck, and knees a recovery period.
2. To work some opposing muscle groups to promote muscular balance
3. To teach the proper form for key parts of the moves.

D. Pattern Building Techniques

For group fitness instructor, the most effective way to teach patterns for kickboxing is incorporating a link and a reverse pyramid at 1/2 time and then once taught use the link at full speed. An example is the following offensive, front striking, unilateral pattern.

In a right leg lead 1/2 time at first

8 jabs, 8 cross, 8 front kicks, 4 jabs, 4 cross, 4 front kicks, 2 jabs, 2 cross, 2 front kicks, 1jab, 1 cross, 1 front kick, 1jab, 1 cross, 1 front kick.

Then full speed jab, cross, front kick eight times.

Repeat the entire sequence with the left leg lead.

In a left leg lead 1/2 time at first

8 jabs, 8 cross, 8 front kicks, 4 jabs, 4 cross, 4 front kicks, 2 jabs, 2 cross, 2 front kicks, 1jab, 1 cross, 1 front kick, 1jab, 1 cross, 1 front kick.
Then full speed jab, cross, front kick eight times.

E. Positions/Stances

When teaching boxing and kickboxing for group fitness classes, there are three basic positions or stances for executing the moves. We will use all three. Even though a boxer does not switch leads, as group fitness instructors we want to promote muscular balance. This brings in the concept of Unilateral and Bilateral moves. Bilateral moves can be executed by either side of the body in an alternating pattern without changing lead. (I.e. Alternating front punches in a front stance. Alternating hook punches in a right or left leg lead) Unilateral moves can only be executed with one side of the body unless the lead is changed. (I.e. Jabs must come of the front foot. A front roundhouse must come off the front foot) Moves will be analyzed as to if they are unilateral or bilateral. Instructors need to pay attention to the unilateral moves and make sure they repeat all unilateral patterns with both leads.

In boxing, one of the objectives is to position the body to protect it from attack. Standing at an angle to your opponent makes the target area that your opponent sees smaller. Since there are right and left handed boxers, there are right and left foot leads. If you are a right-handed person, you use a left foot lead. This is because the cross is the most powerful punch and you want to deliver it with your strongest arm off of your back foot. You stand with your left foot forward pointing toward the opponent in front of you. Your right foot is back and to the right with the toe angled at a 45° to 90° angle. The feet are hip width apart, with soft slightly bent knees. The arms are relatively tight to the body (elbows in as tight as is comfortable) with the fists at cheekbone level. Wrists are straight. A left-handed person would use a right leg lead. You stand with your right foot forward pointing toward the opponent in front of you. Your left foot is back and to the left with the toe angled at a 45° to 90° angle. The feet are hip width apart, with soft slightly bent knees. The arms are tight to the body with the fists at cheekbone level. Wrists are straight. If you ever impacted a punch with a cocked wrist, you could break your wrist.

In many martial arts disciplines, a front stance is used. Feet are hip width apart and both face forward. Knees are slightly bent and the wrists are straight. Some martial arts disciplines have the forearms parallel to the ground at waist level with the palm side of the fist facing up. We will choose to keep the hands in a boxer position.

To make a fist correctly, curl the fingers into the palm and wrap the thumb across the fingers. Do not put the thumb inside the fingers. If you ever impacted a solid object with the fingers over the thumb, you could break your thumb.

For almost all kicks, the foot is flexed. Impacting with pointed toes could break your toes. Impact would be done with the ball of the foot.

F. Cool-Down

As with the warm-up, aqua kickboxing requires a lot more upper bodywork than classic aqua aerobics classes. Therefore we will add 4 upper body static stretches and 2

low back static stretches in the cool-down in addition to the 5 lower body stretches (calf, quad, hamstring, deep 6 rotators, and IT band) and the heart rate recovery. These are

Pectorals (Hands on lower back, elbows folded back)

Trapezius (Arms forward at surface of water)

Rotator Cuff Internal (Elbows into waist, forearms parallel to surface, rotate outward)

Rotator Cuff and Lower Trap (Hands behind the head, head up, elbows back)

Low Back 1 (Hands on the quads, with knees slightly bent, shoulders stay still, head looking down, round the back up.)

Low Back 2 (Hands on the quads, knees bent, shoulders stay still arch the low back with the head up.)

CEC Article QUESTIONS: ADAPTING KICKBOXING TO AQUA Vol 1, 2002

1. T or F : When adapting sports to group fitness classes the underlying logic for the forms and patterning should follow the original sport exactly.
2. Only through _____ and _____ can an instructor safely create new combinations and class structure from the basics of kickboxing.
3. Complete the fill in the blanks for the 8-step process to effectively and safely incorporate sports-specific moves into group fitness classes:
 - a. _____ the objectives of the original sport.
 - b. Understand the _____ for the moves and their _____.
 - c. Analyze the sport for _____, including _____, _____, _____, and possible limitations for specific populations.
 - d. Develop _____ and _____ that accommodate the different muscle groups used in that sport.
 - e. Develop exercises that help teach _____ needed for that sport.
 - f. Develop exercises that help correct for _____ and _____ inherent in the sport.
 - g. Develop _____ that maintain as much of the sport as possible, but _____ for group fitness and the medium you are teaching in.
 - h. Develop patterns that are _____ with the original goals of the original sport.
4. List all six things that group fitness classes try to promote:

5. T or F: Bilateral moves can only be executed by one side of the body unless the lead is changed:
6. T or F: Unilateral moves are a single move moving laterally out from the body.
7. T or F: Instructors need to pay attention to bilateral moves and make sure they repeat all bilateral patterns with both leads.
8. List 6 advantages of Boxing and Kickboxing workouts.
9. List 5 disadvantages of Boxing and Kickboxing workouts.

10. What muscle group do we warm-up with the upper body active stretches?
11. Describe the two low back active stretches?
12. What are all the components in an effective aqua kickboxing warm-up?
13. Why are the fists not kept tight when using glove?
14. Why are skill teaching and muscular balance exercise added to the workout? (3 things)
15. List 3 skill or muscle balancing exercises?
16. The most effective way to teach patterns for kickboxing is incorporating a _____ and a _____ at ____ time and then once taught use the pattern at full speed.
17. How many minimum static stretches are in the Cool-Down?
18. There are a minimum of ____ lower body static stretches, ____ upper body static stretches, and ____ low back static stretches in the Cool-Down.
- 19 Why are the wrists kept straight?
20. Why do you keep the thumb outside the fingers?
28. Why is the foot flexed in most kicks?

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