

**Vol 1,2005 CEC ARTICLE**  
**GOAL TEACHING**  
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Do you know why you do what you do in your classes? Do you have a purpose for every move you do? You SHOULD! The reason for learning your muscle groups, exercise components, water properties and the krebs cycle is so you know the most effective way to work the body, what you are working and what you will accomplish by doing it that way. Repeating, you should have a reason for every move you do; even if it's just a bounce to bring you back into neutral body alignment.

**Your first and foremost goal should of course be the safety of your class.** You need to be aware of any health conditions your participants may have. You need to cue for proper breathing and body alignment. Another important safety cue is to remind your class to roll through the foot to avoid tight or cramping calf muscles. Joints need to stay soft, not locked, while wrists need to stay firm and fingers slightly curled in to avoid hyperextension. You also need to remind your class not to lean as they travel. They need to maintain proper body alignment throughout the workout.

Each move needs to safely transition into the next one. Always bring the body back into neutral body alignment before changing planes. For instance, a rocking horse should never transition into a jack without a hop or bounce added to bring the hips and legs back into alignment under the body before changing planes.

Options for rebound moves must be given for participants with joint conditions, such as arthritis or knee replacements. Sometimes a participant can jump in deeper water. Often modifying the move from rebound to level 2 or 3 is necessary. If you are teaching an arthritis class you certainly would not be doing rebound moves. Your goal in this situation would be range of movement moves for each of the joints in the body with a focus on strength training to build muscle to protect the joints and make everyday activities easier.

Your aerobic workout should be taught at the intensity level that the majority of your class can maintain for the length of time you are doing it. Modifications and or options should be given to increase or decrease the intensity to meet everybody in the classes' aerobic needs. If you have participants in your aerobic class who have heart conditions, high blood pressure, diabetes or who are pregnant, they will each have safety needs. Heart conditions and high blood pressure will need a longer warm up and ease down. Diabetics need a longer ease down and should have juice or candy available in case their blood sugar drops to low.

Prenatal participants need to watch the intensity of their workout. Some doctors recommend not going above 75% of their MHR. They should not use excessive force when pushing arms and legs through the water due to excreting hormones that soften

their joints, tendons and ligaments. Also they should not rebound after the first trimester because it puts too much stress on their erectus abdominus. Lastly, all of these groups should not go anaerobic or work above 85% of their MHR.

**Our next goal should be to fulfill the class description.** Your participants will expect the type of class they signed up for, whether it is aerobic, strength, flexibility, etc. That doesn't mean you can't strength train in an aerobic class. After all you use your muscles during aerobics. It does mean that you should plan on keeping the legs moving as you strength train the arms.

**Is your goal the same as your class's goal?**

Ask them why they are coming to your class.

Are they there mainly to socialize, like many of our arthritis participants, and your goal is to improve their cardio and muscle endurance. You won't achieve your goal until you make it their goal! You need to find out why they are coming, then educate them in terms or words they understand about how you will help them achieve their goal. If they don't know why they are coming to your class in the water, then educate them on the benefits they can receive from your water class if they participate fully, giving it their maximum effort.

It is important that you state the benefits in terms they can relate to. When I do arm strengthening exercises I say this will help you strengthen your arms so you can carry your grand child or the groceries; not this will strengthen your biceps and triceps. On the other hand, if you have a participant in your class who had a knee replacement they probably know the muscles they need to work on because their physical therapist has told them; so saying this will strengthen your quadriceps will probably motivate them to work harder and raise their opinion of you as a fitness professional. Getting your participants excited and committed to achieving their and your goals will help keep them focused on the workout making their fitness goals become a reality.

**To achieve your class goals you must understand the fitness components** and how to structure them in your class. You must know the fitness industry's guidelines and criteria necessary to achieve each of the components. The following are the American Council of Sports Medicine's guidelines for each fitness component.

Cardiovascular: An aerobic activity for 20 to 60 minutes 3-5 days a week. Definition of aerobic is sustained, rhythmic movement utilizing all the major muscle groups gradually increasing the heart rate to 55-85% of the MHR. A 5 to 8 minute warm-up and ease-down should be included to safely return the heart rate to pre-exercise levels.

Strength training: 8-12 repetitions (50 years and younger) of sufficient resistance to overload each of the major muscle groups 2-3 days a week. 10-15 repetitions for participants over 50 years.

Flexibility training: 15 minutes 3-5 days a week; stretching all the major muscle groups.

Knowing the cardiovascular ACSM guidelines; how are you going to accomplish them in your class? First, you must understand how to use the water properties to increase the aerobic intensity of your workout. How are you going to gradually increase the intensity with each move you do? Will you lengthen the lever or change working position to rebound, level 2 or 3? Can you safely increase the speed while keeping full range of movement? Are you going to travel or do the move in place? The moves must build in intensity, peak for a minimum of 20 minutes and then gradually lower in intensity bringing the heart rate back down to pre-exercise levels, all while keeping the body in neutral body alignment.

Now what is your class's goal? Is it to improve their cardiovascular system? Do they have health considerations like **lowering their blood pressure or cholesterol**? Simply following the ACSM guidelines will accomplish those. **Maybe your class goal is to lose weight.** Continually doing the above format would not be the most effective way for them to meet their long term weight loss goal. Why? because of the Specificity of Training Principle which states that the body adapts specifically to whatever type of activity it is given becoming more efficient thus burning less calories to do it. This takes approximately three to four weeks.

Therefore, a better option to meet their weight loss goal would be to change the mode or choreography every four weeks. Try a water walking format or an aerobic/strength training circuit format. If your class is cardiovascularly ready really increase the intensity and burn the calories by doing an aerobic/anaerobic circuit format. Don't forget the safety guidelines, which state that anybody with high blood pressure, heart conditions, diabetes or who is pregnant should not go anaerobic or raise their MHR above 85%.

How about changing the style of choreography you use? Are you currently doing free style, eight counts of this move, eight counts of that? Change to an add on or link choreography which will repeat the moves, increasing the number of repetitions you do, which overloads the muscles for a longer period of time. Whatever you decide to do, just remember you will need to change it every three to four weeks to keep the body from reaching that specificity plateau.

**Is your class participant's goal to build muscle bulk and strength or to improve muscle endurance?** Two different approaches must be used to meet these goals. If your participant wants to build bulk increased weight/resistance must be used in land training. In the water an increase in resistance must be accomplished by increasing the surface area and speed/force used through the water. Equipment is often necessary to increase the surface area (gloves, gyros, buoys) enough to continue to see progression.

However, if your class's goal is strong, lean muscles, which most women want, then muscle endurance should be your focus. The water is an excellent medium to accomplish this. You will want to do more repetitions of each move, turning the hands and feet in different directions to work all the different muscle fibers creating a lean, strong, healthy muscle. Often equipment is not necessary. Simply webbing the hands and adding

force/speed while keeping the range of movement is all that is needed. Remember you should be using your arms during aerobics so muscle endurance for the upper body, as well as the whole body can be accomplished during your aerobic segment.

One problem you should be aware of in the general population is muscle imbalance. Due to living with gravity and our sedentary occupations most people have muscle imbalances. Generally, all the muscles in the back or posterior of the body are weak, as well as all the muscles assisted by gravity. For example, the triceps is weak because as the arm is straightened and lowered gravity assists the movement. A conscientious instructor would focus on strength training those weak muscle groups and stretching the overworked, tight muscle groups in the front of the body, such as the pectorals and hip flexors. This will restore muscle balance, which improves posture and body alignment. Many injuries occur because the body is out of alignment.

A very important fitness component is balance and coordination. This is especially essential for your senior participant, who often falls because they lose their balance. **Fall prevention should be a major goal in your senior classes.** How can you improve their balance and coordination?

1. by traveling
2. by moving in different planes
3. by combining moves
4. by stretching away from the wall
5. by doing one side only moves
6. by doing start/stop moves
7. working fast twitch muscle fibers

Research shows that practice improves coordination. If you do not practice moving sideways or backwards, then when you are suddenly called upon to do that movement you lose your balance and fall. An example of this would be the foot slides to the side in a puddle of water in the produce aisle. Practicing while in the security of the pool should improve their coordination and balance on land, thus preventing falls.

Combining moves, such as the tuck ski and tuck jack causes the brain to start the learning process over again. Walking is a subconscious movement and becomes an autonomous learning stage. You don't have to think, lift my foot, bend my knee, step, roll heel to toe, lift again, etc. After a few months the same thing happens in your class. They no longer have to think to do the moves. When you combine moves the brain has to learn again, this is called the cognitive learning stage. The brain has to work, sending instructions via the nervous system to the muscles. This improves coordination, especially if incorporating different planes. An example of this would be a tuck ski and a tuck jack.

One-sided moves make the participant balance on one leg for a short period of time. Some examples of one-leg moves would be a single front leg kick, a single leg hamstring curl, or a single leg front to back pendulum. The moves can be done while standing still or while hop-ping on the standing leg.

Active or dynamic stretches done in the center of the pool are another way to improve balance. You can also do static stretches in the center of the pool while using the arms to stabilize the body. A calf stretch can be done by doing a heel press down in a lunge position, holding while sculling the arms for a minimum of 12-15 seconds.

Start/stop moves are good to practice in the water because the participant is not afraid of falling. The participant will jog in different directions, front, back, side, diagonal, then stop, tighten the core muscles, trying not to move. The movement of the water is very challenging to the trunk stabilizers as the currents swirl around the stopped body. Even more challenge can be added by stopping and standing on one foot only.

We are genetically programmed with a fixed number of slow and fast twitch muscle fibers. Training or exercising will not increase the number of fast twitch muscle fibers that you have. It will help the ones you have to react quicker. It is the fast twitch muscle fibers that need to react quickly to correct loss of balance and prevent a fall. It is difficult to work the fast twitch muscle fibers in the water. The water resistance, 12-14 times the resistance of air, causes us to move slower in the water, which of course is great training for the slow twitch muscle fibers. Ballistic or plyometric moves are the best way to work the fast twitch muscle fibers in the water. Some of those moves are the split ski, which is the rebound ski with a mini front/back scissors move in the middle or the rebound jack with a mini scissors move in the middle.

The final fitness component you as an instructor is required to incorporate into your workout is flexibility. This is often done during the stretching segment at the end of your class. The ACSM guidelines state that you should have fifteen minutes of flexibility work three times a week. (Personally, I consider this a bare minimum; fifteen minutes everyday would be much better.) If your participant only exercises by attending your class three times a week and you do less than fifteen minutes of stretching then you are not meeting their fitness requirements. You all know that it is not conducive to do static stretching for fifteen minutes in most of your pools because they are around 84 degrees. The muscles would get cold and stretching cold muscles is not safe, which of course is your number one priority or goal. Creatively implementing active stretches after your warm-up and level 2 and 3 moves during your aerobics will help you meet the fifteen minutes of flexibility work that is required. Follow this with 5 minutes of static stretches at the end of class and you will meet your flexibility goal.

Now that you've reviewed all the basic goals you need to accomplish during your workout, safety, meet the class description and ACSM fitness component guidelines; how about special, personal goals. Those could include sports training or seasonal activities.

**Sport training goals**--do you have participants who play tennis, either seasonally or all year round? What muscles do they use? Do they make fast lateral movements? Do they run back-wards, and then stop quickly to hit the ball? Can you duplicate those moves in the water to improve their balance and coordination? Yes, you can and your tennis participants will thank you for it and become a class member for life, even when they stop playing tennis.

What about those seasonal down hill skiers? What muscles do they need to strengthen before they hit the slopes? What flexibility will they need? Will they need to work on balance and coordination for those quick cuts they need to make to get safely down the ski slope? Would they benefit by implementing some tuck skis and moguls into your aerobic workout?

**How about seasonal activity goals?** Do you have any gardeners in your class? Planting begins in late April, early May in the midwest, so how about getting their bodies ready in February and March? You will want to start focusing on strengthening the shoulder, back, arms and leg muscles they will be using. They will certainly thank you when they realize their muscles are not as sore as they were the year before.

**You can have as many goals for your class as you have participants!** You, the instructor, can decide what goals you want to work on after watching and analyzing your class, or you can ask your class what their interests and fitness goals are. After receiving their feedback you can decide what goals you want to work on in class. You may want to have a different goal every couple of months, (remember it takes six weeks before you see any noticeable increased in muscle strength) to implement as many of their goals as possible. When you show your class that you have their best interests as your top priority you will have a devoted following and your classes will always be filled to capacity. And as a personal note, you should never become bored or experience burnout. Goal teaching will provide a continuing challenge for you to be an even better instructor. What's your goal for tomorrow's class!

### **CEC ARTICLE QUESTIONS VOL 1, 2005**

1. Why should you have a purpose for every more you do?
2. What is the most important goal for your class?
3. List 5 safety cues
4. Why use a hop or a bounce as a transition move?
5. List 3 options for modifying rebound moves?
6. List 4 groups who should not go anaerobic?

7. What can you do if your goals as an instructor and the class participants' goals do not match?

8. What are ACSM's cardiovascular recommendations?

9. What are ACSM's Strength training recommendations?

10. What are ACSM's Flexibility training recommendations?

11. List 4 methods of increasing the intensity.

12. Why would we not just do the ACSM's guidelines for cardiovascular training with the same routine forever?

13. How can we safely modify or adapt the cardiovascular guideline?

14. What are the two types of muscular training?

15. How can we train for strength and bulk in the water?

16. How can we train for endurance in the water?

17. What are the most common muscular imbalances in the general population?

18. List 7 ways of balance training.

19. List a method of teaching coordination?

20. Why is coordination training important?

21. How many minutes a week of flexibility training is recommended by ACSM?

22. List 3 ways of stretching?

23. Why would you not have 15 min of stretching in a pool of 84 or below at the end of a vigorous class?

24. List 3 other types of goal setting that can occur and be incorporated into a group class and how to determine what will achieve these goals.

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