AEA
Aquatic Exercise Association

AQUATIC EXERCISE ASSOCIATION

Aquatic Circuit Applications 2

References for this workshop are available upon request – email julie@aeawave.com

Circuit training can open your pool to a wide array of training options that are time efficient and fun. Part 2 of this popular workshop offers all new ideas for creative circuit training in shallow water, along with suggestions for deep- water formats. Explore instructor-guided and self-guided methods to provide optimum results for your pool, your participants and your teaching personality. Innovative ideas fuse cardio and resistance training to help participants achieve fitness goals.

INTRODUCTION

CIRCUIT TRAINING CONCEPTS

What is Circuit Training? Ask ten people this question, and you will likely get 10 slightly different answers!

The AEA Aquatic Fitness Professional Manual, Sixth Edition, shares the following insight:

> "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."

The American Council on Exercise (ACE) website offers an article, Circuit Training by Fabio Comana, MA, MS, that shares this definition:

> "Circuit training is a high volume (repetitions), low resistance (weight) workout with short rest intervals and is geared primarily at improving muscle tone and definition, while improving cardiovascular fitness. This workout involves exercising all major

muscle groups (stations) in one continuous cycle, alternating between the different areas to allow for muscle recovery and to force your heart to work harder in pumping blood (and oxygen) to these constantly changing areas."
http://www.acefitness.org/updateable/update_display.aspx?pageID=605

The LIVESTRONG website, states these objectives for circuit training:

"The core objectives of circuit training are to increase muscle strength, endurance, flexibility and coordination. Whether you accomplish one or all of these objectives depend on how you structure your training. Each training session usually includes a combination of both aerobic exercise and strength training. However, circuit training can include whatever type of exercise you want, in whatever combination helps you accomplish your exercise goals. This could mean your circuit training routine includes only aerobics or only strength training."
http://www.livestrong.com/article/339467-circuit-training-definition/

The common denominator? Circuit training is a great way to satisfy all fitness levels! This is especially true when performed in the pool where modifications are easily achieved through the physical laws and properties of water. Design programs that are suitable for your pool conditions (water depth, pool slope, water and air temperature, available space, equipment choices, etc.), your participants (age, gender, fitness level, personal goals, etc.) and your personal teaching style.

Multi-level classes benefit from circuit training because modifications can easily be made to challenge all participants. Novice water exercise participants may find that circuit training provides an easy, non-threatening way to learn a variety of movements and it allows for frequent "breaks" whereas the advanced participant may enjoy the challenge of pushing their limits at each station. Circuit training is ideal for athletes and sports training because the format easily accommodates the use of specialized equipment and techniques. One could design an entire circuit program for skiing, hockey, football, tennis, etc. or choose to incorporate skills and drills from a variety of sports to appeal to athletic individuals and possibly attract more male participation.

AEA recognizes two basic methods of designing and leading group circuit training workouts – Self-Guided and Instructor Guided. The choice will depend upon pool layout, the ability and self-motivation of participants, equipment available, and your teaching preferences.

Instructor Guided Group Circuit programs are designed so that all participants work together during all segments of the class, following the guidance of the instructor. If the program includes segments of aerobic activity and specific muscular conditioning exercises, the class is often set up in the following manner:

- Participants train as a group during the cardiorespiratory training.
- Participants will continue to follow the instructor, as a group, through a guided strength or skill segment while remaining in the same location rather than moving to specific stations.

This method works for all ability levels and fitness goals, but is especially effective for less-advanced levels and individuals that are not self-motivated (or those that attend class primarily for the social aspect).

It is easier for the instructor to monitor and motivate the participants, as everyone is working as a group. If equipment is utilized, you must have enough available for every participant. Additionally, if the equipment must be picked up from the pool deck for each resistance exercise, then it is important to keep participants moving quickly on these transitions.

Self-Guided (Station) programs are designed so that participants move (individually or in small groups) to specific stations to perform isolated muscular training or skill activities. If the program includes cardio segments, there are formatting options:

1. Participants work together as a group during the cardiorespiratory endurance training, then break into groups to move to the appropriate station. After completing the specified station requirements, participants return to center of the pool and begin the next segment of the circuit with group cardiovascular endurance.
2. It is possible to set up the aerobic activities as stations as well; in this case the individuals or small groups work independently throughout the exercise session.
3. A third option might be to utilize the cardio segments for transitioning from station to station around the pool.

The Self-Guided method works well with participants that are skilled and highly motivated. Because the instructor cannot physically be available at each station, the participants will have to be able to follow the specified activities and maintain proper intensity with limited guidance and encouragement. Good cue cards will be beneficial for this method, as it is more difficult for the instructor to monitor body alignment and technique during the strength / skill stations. If your facility has a limited amount of equipment, this method can be effective; not every station would require equipment and different types could be placed at various locations.

AQUATIC CONSIDERATIONS

The fitness industry is focused on functional training and functional exercise. The term "functional" implies that the movement patterns in the exercise or program format are geared toward providing results to assist the body in real-life situations. Whereas conventional weight training tends to isolate muscle groups to build strength and/or endurance of those muscles independently, it is not conducive to training various muscle groups to work in harmony, which is key to enhance performance in daily activities and athletic endeavors.

Exercise kinesiologist, Paul Chek, MSS, and founder of the Corrective High-Performance Exercise Kinesiology Institute, was quoted in an article at WebMD.com, "In functional fitness, most of the time, you should be standing on your own two feet and supporting your own weight when you lift anything." The same article states that tools that force you to engage your core muscles to balance your body (such as a stability ball) also help to promote functional fitness goals.
http://www.webmd.com/fitness-exercise/features/working-out-for-real-life-functions

Well that is good news for aquatic programming, isn't it? In the pool, we are not relying upon exercise machines to position our body, we are either standing on our own two feet, or one foot to make in harder, or even on a noodle to up the challenge further...all while immersed in a dynamic and fluid environment. Aquatic resistance training is excellent for achieving functional fitness.

The aquatic environment also has other differences from land-based training. To gain the most benefits of training in the pool, carefully plan your program to capitalize on the multi-directional resistance of the water, which assists in developing muscle balance through targeting both muscles of a muscle pair. Unless specialized equipment is added, muscle contractions will primarily be concentric because the water's resistance is encountered in both directions of movement. Drag equipment will further accentuate the water's resistive properties and maintains this "balanced" muscle equation. On the other hand, buoyant, weighted and rubberized equipment alter the muscle equation by targeting only one muscle of the pair through a concentric and eccentric action. Thus it becomes necessary to choose appropriate exercises to target each muscle of the muscle pair separately.

TEST YOUR KNOWLEDGE!

Working with buoyant hand bars, you perform shoulder abduction & adduction (beginning from a neutral position in water that is armpit depth). What muscle group are you targeting?

If you want to target the quadriceps when working with rubberized equipment attached at the ankle, would you need to have the anchor point in front of the body, to the side of the body or behind the body?

When submerged in the water, does weighted equipment work the same muscle groups or opposite muscle groups as when performing the exercise on land?

HOW DID YOU DO?

If these simple concepts on equipment and muscle actions were challenging, you know that you need to focus your continuing education on this critical area of aquatic programming to assure that your classes are both safe and effective. For more details on aquatic fitness equipment and muscle involvement, refer to the AEA Aquatic Fitness Professional Manual Sixth Edition.

With a self-guided circuit the sequencing of exercises will not be the same for each participant in the class, as each person or small group will begin at a different point in the circuit. Thus the protocol of training large muscles before small muscles, which is often popular with resistance training, is not feasible. Is this critical to obtaining muscular strength? At least one study says, not necessarily! The exercise order did not significantly affect the number of repetitions performed. However, regardless of the exercise order, most subjects were unable to perform as many repetitions on the third set as they were on the first and second sets. *Simao, R., Farinatti, P.D.T.V., Polito, M.D., Major, A. S., Fleck, S.J. (2005). Influence of exercise order on the number of repetitions performed and perceived exertion during resistance exercise. Journal of Strength and Conditioning Research. Vol. 19(1), 152-156, as reviewed by Phil Block, M.S. and Len Kravitz, Ph.D. (2005).*

What is important though, is to assure that within any given class session, muscle balance is achieved. The overall goal would be to target all of the major muscles groups when possible. If time is limited, or the focus of the program is more specific (i.e. an upper body circuit workout), it is still important to include exercises for both muscles of a muscle pair. Thus, if you plan to train the triceps during the circuit, then you should also target the biceps.

Working without equipment, or with drag equipment, this can be achieved with a single exercise – remember, water provides multi-directional resistance. However, with rubberized, weighted and buoyancy equipment, you must offer two different exercises – one for the triceps and another for the biceps. This might be achieved by changing body positioning, altering the anchor point (rubberized equipment), or choosing a different piece of equipment.

Designing a balanced, safe and effective circuit program in the pool will depend upon many other factors including:

- Water Depth. An aquatic circuit class can be conducted with for shallow, deep on combined water depths. Exercise and equipment options will differ depending upon the depth of water. For example a ground lunge won't translate into suspended training, as there is not an option to stabilize the feet. However, most all moves could be modified. Also, within the shallow end of the pool, water depth can affect exercise choices and body stances.
- Program Goals. Exercise selection and class formatting will depend on the purpose behind the training session. Is the primary goal muscular conditioning, or is aerobic training also a goal? Maybe the circuit is to enhance balance and core stability. Consider the desired outcome before planning the program.
- Participant Abilities. Are the participants seasoned athletes or beginning exercisers? Most group exercise classes will have multi-level participation, which requires the aquatic professional plan for different intensity options for each exercise. Do you move from shallow to deep? If so, non-swimmers must be accommodated for safety and comfort. Consider the level of self-motivation, as well as exercise experience, to determine if stations will be effective for your group.

Deep-water circuit training opens new doors for program design by incorporating different areas of your pool and challenging the body with moves that continuously focus on core stability and balance. The practical portion of this workshop only targets shallow-water options, but let's discuss some helpful hints that will assure your deep-water circuit class is also a success.

- AEA Standards & Guidelines recommend that deep-water exercise be performed with flotation equipment attached to the trunk of the body (flotation belt or vest) or attached to the upper arms (flotation upper arm cuffs). With proper progression and training, ankle cuffs may be an appropriate flotation option for some individuals. For circuit training you will also likely wish to include equipment to add resistance equipment to add intensity to the training, such as buoyant, rubberized or drag options.
- Consider movement tempo. Deep water often requires a slower cadence than similar moves in shallow water, especially when adding resistance equipment for suspended muscle conditioning exercises.
- Transferring resistance exercises from shallow water to deep water will typically require modification to accommodate the body being suspended. Since there is no anchor point on the pool bottom, stability must be achieved through core activation and careful consideration of exercise technique. Alternating symmetrical exercises will be easier to perform than asymmetrical exercises, including unilateral training techniques.
- If you plan for self-guided stations around the perimeter of the pool, realize that it may take longer for participants to transition from station-to-station in deep water. Allow adequate time to prevent confusion and/or poor alignment during the transitions. If including cardio segments, these could be designed as planned transitional movements.

- Know your population and plan to have exercise options to adjust the intensity and complexity of the movement patterns. For example, arm variations include:
    - Unilateral – just the R arm or just the L arm
    - Bilateral Symmetrical – both arms moving together
    - Bilateral Reciprocal – both arms moving alternately

LEADERSHIP SKILLS

Below are some key points that will assist with designing and implementing group circuit training at your pool:

- Preparation is essential. Plan for in-pool practice prior to your first class so that you know how the exercises feel in the water. This will allow you to provide more effective cueing and coaching.
- Plan to lead the class from deck, especially when incorporating self-guided stations and/or using a variety of equipment choices. For the safety of the participants, they need to see each exercise demonstrated from the visual vantage point of the pool deck.
- Arrive early to class so that you can prepare the stations and/or equipment needed. Encourage students to arrive early as well to assure a smooth and timely start of class.
- During the warm-up, provide all instructions and precautions...this will take extra time, so plan your class accordingly. If necessary with self-guided stations, quickly move around the pool demonstrating each exercise from deck as a quick review. The warm up is an ideal time to preview most exercises or mimic movement patterns without equipment.
- For self-guided circuit classes, Station Cards can be used to remind participants of the exercise and share helpful hints, since you cannot be at each station to provide directives.
- For self-guided circuit classes, plan the direction of travel (clockwise around the pool is usually a good choice). Move about the deck to each station during the workout to observe and correct. Working counterclockwise will help you to assess & assist more participants (rather than "moving with the class" where you will tend to stay with the same group of people).
- Depending upon your pool design and equipment being used, assure that proper depth of water is available. This might be achieved by placement of equipment. For example, a station where participants sit on a noodle could be located in deeper water, whereas a station that requires participants to perform a grounded lunge is better for shallower water. The other option, students do not gather in groups per equipment station, rather they participate in the selected exercises at a depth that is safe and effective for each exercise.
- Use a pace clock, stopwatch, timing app or Gymboss (or similar timing device) to stay on the planned schedule, unless you have music that is pre-cued for the circuit format. It is easy to lose track of time when you are giving instructions and monitoring form.
- Include timing markers such as "30 seconds to go", or ""1/2 way there" or "last exercise before we change stations", or "2 more exercises before we rest" to help give participants an idea of where they are within the training format.
- Be well prepared with each exercise and the transitional choreography (keep it simple) to keep the class flowing smoothly.
- When designing your exercises stations or sequences, always remember to provide a well-balanced workout that targets both muscles of the pair and trains all major muscle groups.
- If exercises repeat, such as in rounds of training, think of the first time through as the "practice run" where you spend more time teaching technique, muscle groups targeted,

the focus of the training, etc. Then next time, encourage participant to "ramp up" their training, hopefully using principles that you have already taught them, such as jumping higher, increasing the pace, changing hand or body position, etc.

- Typically the first couple of circuit classes are chaotic, especially self-guided station formats. However, it gets easier as you become more comfortable with the teaching skills required, and your students become accustomed to this training style.
- It is suggested to repeat exercises in subsequent workouts to allow participants a chance to learn techniques. If your circuit has 8 exercises, you might repeat all 8 for two workouts in a row, but then on the third class replace 2 exercises with new ones. Participants still have some familiar exercises, but also new ones for challenge and to prevent boredom (or talking!)

PRACTICAL APPLICATIONS REVIEW

CIRCUIT ONE

Developed by AEA Training Specialist, Mark Grevelding

Class Format: Modified Self-Guided Stations

This modified format, where all exercises for a specific piece of equipment are performed at one station in sequence, will reduce the amount of confusion & time spent moving people around the pool.

With two pieced of equipment, you need two stations and 50% of each type based upon the number of participants. For example, if you have 30 students you only need 15 P2K and 15 sets of ErgoBells. With three equipment choices, you would have three stations but only need one-third of each type of equipment.

Suggest having a poster at each station with a reminder of the exercises as a quick reference for the participants!

Today's sample workout:

- 2 Equipment STATIONS – P2K and ErgoBells = 6 minutes per station
    - Set up STATIONS on opposite sides of the pool
    - Divide participants into two groups with one group at each STATION
    - Each STATION has 4 TRAINING exercises & 4 CARDIO REV moves:
        - TRAINING = 60 seconds (final 30 seconds is optional intensity challenge)
        - TRAINING exercises are basically Self-Guided and based upon the equipment (instructor moves between both stations to assist)
        - CARDIO REV = 30 seconds
        - CARDIO REV is cued by instructor and everyone performs together but remains at respective STATION
        - Purpose is to rest the upper body, and allow participants to stay warm while instructor does quick review of the next TRAIING exercise
- TRANSITIONAL SPRINT = 30 seconds between STATIONS to put down equipment, move to opposite side of pool & pick up new equipment

- ROUND OF TRAINING = 13 minutes (6 minutes at each STATION plus 1 minute TRANSITIONAL SPRINT between each) and comprised of 8 different EXERCISES (4 with each piece of equipment) + 8 different CARDIO REV movements

- 35-minute Session
  - Warm Up: 5 minutes
  - ROUND 1: 13 minutes
  - ROUND 2: 13 minutes
  - Stretch: 4 minutes

Let's break this down a bit further to see how the program comes together...

- WARM UP = As group, but at respective stations
- ROUND ONE
  - **EXERCISE 1 (different for P2K & ErgoBells)**
  - CARDIO REV 1 = Cross-Country Ski, perform as class but remain at station
  - **EXERCISE 2 (different for P2K & ErgoBells)**
  - CARDIO REV 2 = Tire Run, perform as class but remain at station
  - **EXERCISE 3 (different for P2K & ErgoBells)**
  - CARDIO REV 3= Jumping Jack, perform as class but remain at station
  - **EXERCISE 4 (different for P2K & ErgoBells)**
  - CARDIO REV 4= Heel High Jog, perform as class but remain at station

  - TRANSITIONAL SPRINT – groups change STATIONS

  - **EXERCISE 1 (different for P2K & ErgoBells)**
  - CARDIO REV 5 = Pendulum, perform as class but remain at station
  - **EXERCISE 2 (different for P2K & ErgoBells)**
  - CARDIO REV 6 = Moguls, perform as class but remain at station
  - **EXERCISE 3 (different for P2K & ErgoBells)**
  - CARDIO REV 7= Karate Kick, perform as class but remain at station
  - **EXERCISE 4 (different for P2K & ErgoBells)**
  - CARDIO REV 8= Twist, perform as class but remain at station

  - TRANSITIONAL SPRINT – groups change STATIONS (you are now back to where you began)

- ROUND TWO – Repeat of ROUND ONE
- STRETCH = As group, but at respective stations

Equipment: The Aqua Sphere P2K and ErgoBells fall primarily into the category of buoyancy equipment when used for added resistance during upper body training. Buoyancy resisted movements are those that move the equipment toward the pool bottom, thus buoyancy assisted movements are those toward the pool surface. Some level of drag resistance is also encountered with all submerged movement, and the amount of resistance varies with the surface area leading the exercise. This is especially noticed with the P2K when maximizing surface area, i.e. presenting the large, flat surface during the exercise.

Exercise Choices:

P2K STATION

P2K TRAINING 1 = Jumping Jacks & Chest Press
Execution: Begin with elbows flexed and at the waist. Grip the P2K with both hands; board perpendicular to pool bottom & fully submerged for max resistance. Perform jumping jacks with a push and pull movement.
Target Muscles: Pectoralis, anterior deltoid, triceps on press. Latissimus, rhomboids, posterior deltoids and biceps on the pull.
30-second challenge: Elevated knee "power" jacks

P2K TRAINING 2 = Straddle Tuck & Pulldown
Execution: Grip the P2K with both hands and arms long in front of the body; board parallel to pool bottom for max resistance. Perform wide leg tucks while powerfully pulling the P2K down with shoulder extension. Let the equipment return to the surface without power as legs land on the pool bottom. Engage the core to maintain spinal alignment.
Target Muscles: Pulling down with long, extended arms will concentrically load the lats, triceps and posterior deltoids; releasing back to the surface with controlled shoulder flexion will focus on buoyancy assistance, thus eccentric muscle action of the same muscles. (As opposed to drag resistance if shoulder flexion was performed with power.)
30-second challenge: Perform with increased power and speed.

P2K TRAINING 3 = Hip-hinge Back Karate Kick
Execution: Lean forward at the hips and rest forearms on the P2K. The lower body performs powerful, rebounding back karate kicks.
Target Muscles: These multi-joint kicks with target the iliopsoas, glutes, quadriceps and hamstrings. Putting more emphasis on the posterior movement (kick rather than the return) add more focus to the glutes and quadriceps
30-second challenge: Perform double or triple kicks with each leg before switching.

P2K TRAINING 4 = Moguls & Diagonal Chest Press
Execution: Begin with elbows flexed and at the waist. Grip the P2K with both hands; board perpendicular to pool bottom & fully submerged for max resistance. Perform moguls (side hops) with a diagonal push and pull movement (upper body rotates with the chest press). Note: legs move in opposition to upper body.
Target Muscles: Pectoralis, anterior deltoid, triceps on press. Latissimus, rhomboids, posterior deltoids and biceps on the pull. The diagonal pattern of the upper body adds focus to the obliques.
30-second challenge: Elevated knees on the moguls.

ERGOBELL STATION

ERGOBELL TRAINING 1 = Level II Jacks with Opposition Arms
Execution: Start with shoulder abducted; ErgoBells held in vertical position (palms facing forward) and submerged; body in level II. As legs abduct apart, arms sweep together parallel to pool bottom (transverse adduction); as legs adduct, arms sweep out (trans. abduction).
Target Muscles: Pectoralis and anterior deltoid on transverse adduction. Posterior deltoids on transverse abduction.
30-second challenge: Perform at level III – suspended.

ERGOBELL TRAINING 2 = Jump Front/Back & Shoulder Extension/Flexion
Execution: Start with shoulders flexed and elbows extended; ErgoBells parallel to pool bottom (palms down). Jump forward while extending the shoulders down and behind the body. Jump backward while flexing the shoulders back to start position.
Target Muscles: Latissimus, posterior deltoids and triceps – shoulder extension. Pectoralis, anterior deltoids and biceps – shoulder flexion.
30-second challenge: Perform at level III (suspended), legs "shoot through" to the front and the back. Brace the core and avoid lumber hyperextension as legs shoot behind the body.

ERGOBELL TRAINING 3 = Tuck & Triceps Press Down
Execution: Begin with elbows flexed and "glued" to the waist; ErgoBells parallel to pool bottom (palms down). Perform knee tucks while powerfully pulling the bells down with elbow extension. Let the equipment return to surface without power as legs land on pool bottom.
Target Muscles: Elbow extension (ErgoBells moving toward the pool bottom) concentrically target triceps with a buoyancy resisted movement. Flexing the elbow will primarily be an eccentric contraction of the triceps with a buoyancy-assisted movement.
30-second challenge: Instead of tucking knees up, shoot both legs forward.

ERGOBELL TRAINING 4 = Level II Cross-Country Ski & Elevated Biceps Curl
Execution: Start with shoulder abducted; ErgoBells parallel to pool bottom (palms facing down); body in level II. Perform elbow flexion (hands moving toward armpits) & extension as legs perform a cross-country ski movement.
Target Muscles: Elbow flexion (ErgoBells moving toward the pool bottom) concentrically target biceps with a buoyancy resisted movement. Extending the elbow will primarily be an eccentric contraction of the biceps with a buoyancy-assisted movement.
30-second challenge: Perform at level III (suspended) OR perform unilateral arm movements to challenge balance & core stability.

CARDIO REV MOVEMENTS – arms relaxed, resting on equipment

CARDIO REV 1 **Cross-County Ski**

CARDIO REV 2 **Tire Run** (Out, Out, In, In)

CARDIO REV 3 **Jumping Jack**

CARDIO REV 4 **High Heel Jog**

CARDIO REV 5 **Pendulum**

CARDIO REV 6 **Mogul**

CARDIO REV 7 **Karate Kick**

CARDIO REV 8 **Twist**

CIRCUIT TWO

Developed by AEA Training Specialist Stephanie Thielen

Class Format: Instructor Guided Circuit Targeting Strength, Balance & ROM
This circuit targets specific techniques for strength, balance and range of motion. There is not a cardio component included. Everyone performs the exercises together.

- 8 EXERCISES = 60 seconds work / 20 seconds transition
- ROUND of TRAINING = 10 minutes & 20 seconds
- REST = 1 minute between ROUNDS
- 20-minute Session
  - Warm Up: 5 minutes
  - Round 1: 10 minutes, 20 seconds
  - Rest: 1 minute
  - Round 2: 10 minutes, 20 seconds
  - Stretch: 3 minutes

Equipment: The Aqquatix Happy Flowers provide both buoyancy resistance and drag resistance, but the shape of the equipment typically accentuates drag properties. The amount of resistance varies with the surface area leading the exercise. The edge of the flower (i.e. slicing) provides the least amount of surface area. When moving the face of the flower, there are two choices – the convex surface (surface with the logo) provides slightly less resistance when moving through the water because if creates a more streamline flow than the concave surface.

Equipment Grip
- **IN = holding the convex side so the logo is facing in towards you**
- **OUT = holding the concave side so the logo is facing out away from you**

Exercise Choices:

EXERCISE 1 = Split Stance with Long Arm Rotation
Execution: Begin in stride position or split stance with RIGHT foot forward. Arms at chest height with palms facing together. Open the RIGHT arm out and back (transverse abduction) as the upper body rotates to the RIGHT, head following the hand. Hips, knees & feet remain facing forward. Return to start position. Jump switch to change lead leg and repeat all on LEFT side. Continue alternating sides for 60 seconds.
Equipment Grip: IN
Purpose: Balance & ROM
Cues: The movement begins with hand opening into transverse shoulder abduction, and continues into spinal rotation as the upper body and head follow through the movement. If the water is shallow, flex the hips & knees to lower the shoulders under the water.

EXERCISE 2 = Single Knee Lift w/ Alternating Shoulder Abduction/Adduction x 3
Execution: Begin standing with feet shoulder width apart and arms at the sides and palms facing in. Step weight onto RIGHT foot as LEFT knee lifts and LEFT arm abducts in frontal plane. Remain in knee lift position while alternating shoulder abduction with the RIGHT and then the LEFT arm again (x3). On the 4th count, return to the start position. Repeat with the opposite lead with RIGHT knee lifted as arms abduct/adduct R-L-R. Continue alternating sides for 60 seconds.
Equipment Grip: IN
Purpose: Balance & ROM
Cues: Body remains upright; brace the core to prevent shifting the weight side-to-side on the exercise. All movement is from the shoulder joint. Keep knee "soft" on supporting leg.

EXERCISE 3 = Bilateral Symmetrical Shoulder Flexion/Extension
Execution: Begin standing with feet slightly apart, arms at the sides and palms facing back. Perform powerful shoulder flexion and extension with both arms moving together. Continue for 60 seconds. OPTION: lead with the palms (and concave surface of the flower) in both directions.
Equipment Grip: IN
Purpose: Strength
Cues: Brace the core to stabilize the spine & maintain upright posture throughout. Movement is from the shoulder joints.

EXERCISE 4 = 3-Point Push & Wide Tuck Jump
Execution: Begin standing with legs wider than shoulder width. Arms are in front of the body, with elbows flexed and hands holding the outside of the flowers, which are stacked together. Push the hands forward with arms parallel to pool bottom; think chest press to RIGHT diagonal, to the FRONT (center) and LEFT diagonal. Then, press the hands down toward the pool bottom as the legs perform a wide tuck jump (i.e. hands move down toward the feet as the body jumps up). Repeat the sequence LEFT, CENTER, RIGHT & Tuck. Continue alternating sides for 60 seconds.
Equipment Grip: OUT & Stacked Together
Purpose: Strength
Cues: Remain grounded on the 3-Point Push with core engaged.

EXERCISE 5 = Horizontal Shoulder Abduction/Adduction w/ Twist
Execution: Begin standing with feet slightly apart, body facing the RIGHT side of the pool (thus the LEFT arm is closest to the front of the pool). Arms at chest height with palms facing together. Open the LEFT arm out and back (transverse abduction) as the upper body rotates to the LEFT, head following the hand – opening 180 degrees. Hips, knees & feet remain facing forward. Jump twist so body now faces the LEFT side of the pool (arms still open). Then sweep the RIGHT arm across to meet the LEFT – ready to begin the exercise with the opposite lead. Continue alternating sides for 60 seconds.
Equipment Grip: OUT
Purpose: Balance & ROM
Cues: The movement begins with hand opening into transverse shoulder abduction, and continues into spinal rotation as the upper body and head follow through the movement. Although fluid, there are 3 distinct movements – open the arms, twist, close the arms.

EXERCISE 6 = Single Leg Kick & Shoulder Abduction/Adduction

Execution: Begin standing with feet slightly apart, arms abducted in frontal plane and palms facing pool bottom. Shift weight to LEFT foot and perform a straight leg kick with RIGHT leg as the arms adduct to the sides; return to the start position. Repeat for 30 seconds, then switch legs and repeat kicks for 30 seconds with LEFT leg. OPTION: Begin in a knee lift position and perform knee flexion & extension only.
Equipment Grip: OUT
Purpose: Balance & ROM
Cues: Maintain tall posture. Keep knee "soft" on the supporting leg.

EXERCISE 7 = Horizontal Sweeps

Execution: Begin with at least feet shoulder width apart. Arms are in front of the body, with elbows slightly flexed and hands holding the outside of the flowers, which are stacked together. Turn the flower vertical so that the RIGHT hand is on top and sweep the arms across the body to the RIGHT, allowing the body to pivot on the ball of the LEFT foot to achieve full range of motion. At the end point, turn the flower so the LEFT hand is on now on top and sweep the arms across the body to the LEFT, allowing the body to pivot on the ball of the RIGHT foot to achieve full range of motion. Continue alternating sides for 60 seconds.
Equipment Grip: IN & Stacked Together – the movement leads with the concave surface for maximal resistance.
Purpose: Strength
Cues: Focus on a fluid continuous flow from side-to-side. Visualize moving the arms in a large figure-8 pattern.

EXERCISE 8 = 3 Alternating Straight Punches + 1 Jack Jump

Execution: Begin with feet shoulder width apart and knees slightly flexed into an athletic stance. Elbows flexed and at the waist. Perform 3 alternating front punches (RIGHT, LEFT, RIGHT) and then 1 Jack Jump (as legs come together power of the pool bottom and click the heels together, land with feet apart). Repeat punches LEFT, RIGHT, LEFT and Jack Jump. Continue alternating sides for 60 seconds.
Equipment Grip: OUT
Purpose: Strength
Cues: Punches forward, not across the body, so actively brace the core and keep hips facing forward. Land softly from the Jack Jump.

CIRCUIT THREE

Class Format: Instructor Guided Cardio Circuit – Functional Fitness

In this circuit, the exercises flow one to another, more of a traditional cardio class, but with added emphasis on muscular conditioning, core stability and coordination within each SEQUENCE of training. Everyone performs the exercises together.

The overall goal is functional fitness, so most are multi-joint movement patterns that blend different planes of motion, include balance challenges, and use various impact levels.

This format can be a full class or can be a component of a fusion class. If you want higher intensity aerobic training, insert specific cardio patterns to elevate the heart rate between the SEQUENCES.

- SEQUENCES target specific goals or exercise variations, such as Unilateral Training, Posture & Balance, and Suspension Training.
- Perform 8-16 reps (depending upon your participant abilities) of each move in the sequence rather than timing exercises. This format does not require a timing app or stop watch.
- 1 ROUND = 6 difference SEQUENCES of training techniques.
- Repeat ROUNDS of training as desired or as time allows

Equipment: Noodles can be used for flotation to maintain a suspended body position, such as a seated position or static plank exercise. They can also be utilized for buoyancy resistance; a concentric muscle action occurs when pushing the equipment toward the pool bottom, while an eccentric action occurs in the same muscle groups as the equipment returns toward the surface. For example, a "traditional" triceps press down exercise will concentrically contract the triceps as the elbows extend and eccentrically contract the triceps as the elbows flex. This exercise does not train the biceps, thus another exercise or body position must be employed. The noodle can provide drag resistance in specific exercises (such as moving parallel to the pool bottom as in a traditional chest press), especially when "tied in a knot" to reduce the streamline movement typical of a long, flexible noodle.

Different noodles give different results. Some are more flexible and can be tied in a knot, whereas others are very rigid. They come in various diameters and may be solid core or hollow, which affect the buoyancy. Although most are round, some are scalloped or square. Design your program around the specific type of noodle you will be using, as not all exercises will work with all types.

Exercise Choices:

SEQUENCE ONE: Unilateral Training

- **Cross Stance Lateral Flexion** – Stand with weight on RIGHT leg and LEFT leg crossed behind, balanced on ball of foot. Hold noodle in RIGHT hand with arm long at the side. Perform lateral flexion to the RIGHT, letting the noodle "slide down the leg" to guide the movement. 8x
- **Level II Side Shoot** – Drop to Level II and shoot both legs out to LEFT side off the pool bottom, returning to tap center between each rep. Noodle remains in RIGHT hand, pushing out away from the body in opposition to the feet. 8x
- **Level II Ski & Unilateral Shoulder Flexion & Extension** – Remain in Level II and perform cross-country skis with single arm shoulder flexion & extension – RIGHT arm with noodle. 8x (shoulder flexion + shoulder extension = 1 rep)
- **Chair Pose & Triceps Press** – Step feet together and sit back into a chair pose (or close squat). Both arms long and forward of the body and under the surface of the water. Noodle remains in RIGHT hand with palm down. Hold the chair pose and extend the RIGHT elbow, bringing the noodle toward thigh. 8x
    - **Repeat full Sequence with Opposite Side**

SEQUENCE TWO: Front Plank Jack Series

- **Level II Jack** – Body in Level II position, noodle in both hands resting on the surface of the water in front of the body. Perform Jacks or Jack Tucks. 8x
- **Level II Jack & Front Plank** – Remain in Level II and perform one Jack, then shoot the legs behind the body (touching pool bottom) as the body leans forward and arms push noodle under the water – end in front plank position (diagonal prone with straight line from shoulders-hips-knees-ankles and the noodle directly beneath shoulders.) 8x
- **Front Plank [Static Hold]** – Remain in the front plank position and hold for 8 counts.
- **Front Plank Jack** – Remain in front plank position and perform hip abduction & adduction, keep the toes on the pool bottom. 8x

SEQUENCE THREE: Posture & Balance

- **Chest Opening Run Forward** – Stand tall with noodle behind the body and holding the ends in each hand. Adduct the shoulders (bring arms to the sides or slightly behind the body) allowing the noodle to bend, forming an arch up & out of the water. Maintain this position and run forward. 8 counts
- **Scapular Stabilization Run Backward** – Drop to Level II and bring noodle in front of body, holding with both hands about shoulder width apart. Stabilize the scapulae in a neutral or slightly retracted. Maintain this position and run backward. 8 counts
- **Single Leg Hip Hinge & Lat Pulldown w/ Knee** – Stand tall, shift the weight to the LEFT leg and hinge the body forward at the hips – allow the RIGHT leg to lift off the pool bottom behind the body…this is Single Leg Hip Hinge position. Lift both arms in front of body (still holding the noodle), but remain under the surface of the water. Perform bilateral shoulder extension as the RIGHT knee pulls into the chest; flex the shoulders and straighten the leg to return to the single leg hip hinge stance; do not return to vertical. 8x
- **Single Leg Hip Hinge & Side Knee Crunch** – Remain in single leg hip hinge position, both arms forward but noodle in LEFT hand only for stability. Bring the RIGHT elbow and RIGHT knee together laterally (you are moving in the frontal plane, not the sagittal plane). Visualize: Unilateral Army Crawl 8x
    - **Repeat full Sequence with Opposite Side**

SEQUENCE FOUR: Plank Push Up Progression

- **Wide Leg Plank Push Up** – Begin with body in front plank position, legs wide and feet on pool bottom, and arms fully extend directly under the shoulders, noodle held with hands about shoulder width apart. Perform a chest press while bracing the core muscles to stabilize. 8x
- **Closed Leg Plank Push Up** – Repeat but with feet side-by-side. 8x
- **Single Leg Plank Push Up** – Repeat with RIGHT foot elevated & the LEFT foot elevated. 8x each
- **Suspended Plank Push Up** – Allow both feet to lift off pool bottom so body is suspended. 8x

SEQUENCE FIVE: Suspended Stability

- **Reverse Squat & Twist** – Stand with both feet on top of the noodle – feet shoulder width apart; noodle is on the pool bottom. Do not hold the noodle with hands. Lower the body into Level II while tucking both knees to the chest, allowing the noodle to leave the pool bottom. While suspended, rotate the body to the RIGHT, return center, and push feet to pool bottom, as the body stands tall. 8x
- **Goalie Shuffle** – Stand with both feet on top of the noodle – legs wide; noodle is on the pool bottom. Do not hold the noodle with hands. Lower the body into Level II and lift the noodle just barely off the pool bottom. Using the upper body and core, shuffle the legs from right to left as if sliding on the ice. 8x (R + L = 1 rep)
- **Single Leg Reverse Squat** – Stand tall and lift the LEFT foot off the noodle and extend leg slightly forward. Lower the body into Level II while tucking RIGHT knee to the chest, allowing the noodle to leave the pool bottom. 8x
- **Grounded Karate Kick Front & Back** – From the single leg stance, perform a Front Karate Kick – Back Karate Kick combination with the RIGHT leg, without stepping the foot down. *(If the noodle is in the way of the kicking leg, step the left foot closer to the right end of the noodle.)* NOTE: The LEFT foot remains grounded on top of the noodle throughout the set: do not let toes or heel touch the pool bottom. 8x
    - **Repeat full Sequence with Opposite Side**

SEQUENCE SIX: Side Plank Ski Series

- **½ WT (center tap) Level II Ski & Unilateral Lat Pulldown** – Begin in Level II with RIGHT arm abducted and holding the noodle with palm down. Perform ½ Water Tempo cross-country skis with a center tap (cue: ski – together). 8x
- **½ WT (center tap) Level II Ski & Side Plank** – Remaining at Level II with RIGHT arm at the side. Perform one ski (see above) then shoot both feet out to LEFT side (touching pool bottom) as the body leans to the RIGHT side – end in RIGHT side plank position (lateral diagonal with straight line from shoulders-hips-knees-ankles and the noodle directly beneath the shoulder). 8x
- **Side Plank [Static Hold]** – Remain in the RIGHT side plank position and hold for 8 counts.
- **Side Plank Cross Country Ski** – Remain in RIGHT side plank position and perform bilateral alternating hip flexion & extension (cross country ski movement) keep feet near the pool bottom. 8x
    - **Repeat full Sequence with Opposite Side**