# Fantastic Water Workouts

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## **Learning Objectives**

#### After reading *Fantastic Water Workouts*, the participant will be able to:

- 1. Explain why water workouts are so effective in improving fitness level.
- 2. Explain why water workouts reduce the risk of back injury.
- **3.** Explain why people who have medical conditions that prevent them from participating in land based activities can comfortably exercise in water.
- **4.** Explain which property of water reduces perceived body weight and why this is important.
- **5.** Explain why water workouts provide faster toning and conditioning results than land based exercise.
- **6.** Identify how to determine a personal optimal level of intensity to improve cardiorespiratory fitness.
- 7. Explain how to measure workout intensity using heart rate and RPE.
- **8.** Understand why target heart rate when exercising in water should be less than it is when exercising on land.
- 9. Understand the viscosity principle.
- **10.** Explain the effect hydrostatic pressure has on the body when performing exercises in the water.
- **11.** Explain what eddy drag is.
- **12.** Understand how to prevent injury when performing water exercises.
- **13.** Understand the difference between Thermal Warm-up stretching and Cool-down stretching.
- **14.** Understand how to prevent heat related injuries using temperature and humidity.
- **15.** Understand how to safely incorporate water exercise equipment into a water workout.

- **16.** Define the variables of the FITT principle.
- **17.** Understand how to safely incorporate overload into a workout.
- **18.** Explain the correct format to use when structuring a water workout.
- **19.** Explain the purpose of the Thermal Warm-up segment and the Cool-down segment of a water workout.
- **20.** Identify the objective of the aerobic segment of a water workout.
- **21.** Explain what core strength means.
- 22. Identify exercises recommended for use in the Thermal Warm-up segment of a water workout.
- **23.** Identify the most appropriate stretches to use for specific muscles or muscle groups.
- **24.** Identify the safety tips to use when performing certain water aerobic exercises.
- **25.** Understand how to focus on improvements in strength when performing water muscle training exercises.
- **26.** Identify the muscle groups involved in developing core strength.
- **27.** Identify which exercises to avoid if the participant has knee pain.
- **28.** Explain how to vary exercises to change which muscle(s) the exercise focuses on working.
- **29.** Identify exercises for strengthening and improving flexibility in the back and neck
- **30.** Explain why power and plyometric techniques are effective in accomplishing more conditioning in less time than other exercises.
- **31.** Explain what power moves are and how to perform them.
- **32.** Explain what the term plyometric means.
- **33.** Understand how to safely perform plyometric exercises.
- **34.** Understand how to incorporate power moves and plyometric exercises into a water workout.
- **35.** Explain how to correctly perform a squat.
- **36.** Explain why plyometric exercise is useful in both injury prevention and injury rehabilitation.

- **37.** Identify the recommendation from the ACSM and the AHA for doing cardio exercise of adults aged 65 and under.
- **38.** Define what is meant by moderate intensity.
- **39.** Identify the three basic body types.
- **40.** Explain why it is important to add variety to a water workout.
- **41.**Explain why water rehabilitation is so successful.
- **42.** Explain why water exercise is beneficial for pregnant women.
- **43.** Explain why water exercise is so effective in managing arthritis.
- 44. Identify health tips to use for people with diabetes.



### **CEC/CEU Test for** *Fanstastic Water Workouts*

#### Choose the best answer. Mark all answers on the answer sheet

- 1. Which of the following is <u>not</u> one of the properties of water that provides an environment that allows people to get a good workout?
  - A. Water regulates body temperature which prevents overheating
  - B. Water provides no resistance to movement
  - C. Water cushions the body preventing injuries
  - D. Water increases resistance for muscles which provides a total body workout
- 2. When a person's body is immersed in water up to their chest, their body bears approximately \_\_\_\_\_\_ of their total body weight.
  - A. 50 percent
  - B. 15 percent
  - C. 25 to 30 percent
  - D. 75 percent
- 3. Which of the following statements explains why water workouts are beneficial for reducing the risk of back injury?
  - A. People are forced to move slower when performing exercises in the water
  - B. Jarring movements such as running or jumping can't be done in the water
  - C. Using flotation devices for deep water running cuts down on the compression of the spine compared to running on land thereby reducing spinal shrinkage
  - D. Water helps decrease swelling around joints
- 4. Pregnant women who participate in water exercise have
  - A. Improved pregnancy outcomes
  - B. Reduced illness in mothers and babies after delivery
  - C. Are better able to maintain their weight during their pregnancy
  - D. Both a and b

- 5. People who can't exercise comfortably on land or have conditions such as arthritis or back pain can exercise in water because
  - A. Water reduces stress on joints, muscles and bones
  - B. Water provides a cooler environment, even when exercising hard
  - C. Water resistance provides speedy, effective toning
  - D. All of the above
- 6. What enables your perceived body weight to be as much as 90 percent less in water than actual body weight on land?
  - A. Hydrostatic pressure
  - B. Buoyancy
  - C. Multidirectional resistance to movement
  - D. Flotation devices
- 7. Why is less body weight in water such an important factor in water exercise?
  - A. People feel more confident in being physically able to perform exercises
  - B. Movement is much easier for overweight participants
  - C. Weight bearing impact is minimal so joint, bone and muscle stress is reduced
  - D. Performing exercise in water is more fun
- 8. Which of the following statements best explains why water workouts provide faster muscle toning and conditioning results than land based weight training?
  - A. In water movement can be added to weight training without risk of injury

B. The resistive power of water provides resistance in multiple directions so that one exercise can work two opposing muscle groups with each repetition

C. The newer equipment developed for water exercise is designed to provide unidirectional force for muscle groups

D. Water is less dense than air so exercises can be done at a much faster pace allowing more repetitions in less time

- 9. Which of the following statements best explains why exercising in water prevents overheating?
  - A. The body transmits exercise heat to water more easily than to air
  - B. Water exercises are easier to perform so most people don't sweat

C. Water temperature can be kept much cooler than air temperature in warm weather

D. Wearing swimsuits exposes more skin for better cooling

- 10. The optimal level of exercise intensity to improve cardiorespiratory fitness when using heart rate is called the
  - A. Target resting heart rate
  - B. Exercise induced heart rate range
  - C. Target zone
  - D. Maximal desired heart rate zone
- 11. In order to measure exercise intensity using heart rate, monitor heart rate by counting the number of heart beats using
  - A. The radial artery
  - B. The brachial artery
  - C. The carotid artery
  - D. Either a or c
- 12. If your resting heart rate count is \_\_\_\_\_, you are probably aerobically fit
  - A. Greater than 60 beats per minute
  - B. Less than 60 beats per minute
  - C. Greater than 80 beats per minute
  - D. Less than 40 beats per minute
- 13. To monitor your working heart rate, find your pulse and
  - A. Count the number of heart beats for 4 seconds and multiply by 15
  - B. Count the number of heart beats for 60 seconds
  - C. Count the number of heart beats for 6 seconds and multiply by 10
  - D. Count the number of heart beats for 10 seconds and multiply by 6
- 14. Another method of determining intensity is to use the RPE scale, which is also known as
  - A. Regulating perception of exercise
  - B. Rating of perceived exertion
  - C. Registering perception of exercise
  - D. Regulating perceived exertion
- 15. When using RPE to measure intensity, it is important that you

A. Rate your perception of exercise exertion based on how hard it is for you to maintain your balance

B. Rate your perception of exercise exertion based on how comfortable your body feels in the water

C. Rate your perception of exercise exertion based on the fatigue of your muscles and how breathless you feel

D. Rate your perception of exercise exertion based on how much you are sweating

- 16. Using the Borg RPE Scale, a perceived exertion of between 10 and 16 would be about what percentage of a person's target heart rate?
  - A. 20 30 percent
  - B. 45 50 percent
  - C. 60 80 percent
  - D. 90 95 percent
- 17. Which of the following is an advantage of using the rating of perceived exertion scale to measure intensity?

A. Your perception of exertion signals you to slow your pace to a more moderate level if the exercise feels too intense

B. The perceived exertion scale allows you to monitor your exertion easily without having to find and monitor your heart rate

- C. RPE doesn't require any expensive equipment to monitor your intensity
- D. Both a and b are advantages
- 18. It is recommended that the target heart rate when exercising in water should be 10 to 20 beats less compared to land exercise because

A. The pressure of the water helps the heart circulate blood by aiding the veins in returning blood flow back to the heart

B. The hydrostatic pressure of water shifts blood volume away from the chest, heart and lungs and this shift leads to a decrease in heart rate

C. Water dissipates heat more effectively than air, and the body compensates by dilating the blood vessels in the limbs, which increases blood flow to the heart

- D. All of the above
- 19. Which of the following statements regarding exercise in water is true?

A. Humans are more dense in water than on land

B. Based on body composition and the amount of air the lungs can hold, every person has a different propensity to float, or more or less buoyancy in water

C. People who have less buoyancy may be inclined to arch their lower backD. Buoyancy makes it easier to move away from the surface of the water and harder to move toward the surface

- 20. When the frontal plane of the body encounters the density of water, it displaces water and meets with resistance: the faster the speed is or the greater the force, the higher the level of resistance. This property is called
  - A. The principle of progressive overload
  - B. The viscosity principle
  - C. The principle of buoyancy
  - D. The principle of hydrostatic pressure

21. Which of the following statements regarding hydrostatic pressure is NOT true?

- A. It makes stretching in the water more comfortable and easier to do
- B. It lowers blood pressure and heart rate when compared to doing the same exercises on land
- C. Water only exerts a force on a body when it is moving

D. When exercising in water the body encounters resistance in all directions, and this provides an environment conducive to improving functional strength

22. Which of the following statements is the best definition of eddy drag?

A. It is the lack of buoyancy that makes water exercise very difficult for some people

- B. It is the bending of a limb in order to shorten the lever and decrease intensity
- C. It is the water density that creates resistance
- D. It is the circular currents created when you move in water
- 23. All of the following describe situations when it is advisable for a person to avoid water workouts EXCEPT
  - A. If they have a headache
  - B. If they have a fever
  - C. If they have an open wound
  - D. If they have a contagious skin rash

24. Which of the following is recommended during the initial conditioning phase?

A. Begin with water walking for 10 to 15 minutes

B. Monitor heart rate to make sure you are working at the low end of your target heart rate range

C. If just starting on an exercise program, allow 4 to 10 weeks of initial conditioning before beginning more vigorous exercise

D. All of the above are recommended

25. Which of the following statements is NOT included on the Injury Prevention Checklist?

A. After taking a deep breath, exhale and contract the muscles of the abdomen into a "rock belly"

B. Hold your breath while you perform difficult exercises, in order to help you concentrate

C. In order to brace your spine in the neutral position, squeeze your buttock muscles at the same time you perform the "rock belly"

D. Don't straighten your joints into hyperextension, instead keep the knees and elbows slightly bent

- 26. Static stretches should be held for \_\_\_\_\_ during warm-up, and held for \_\_\_\_\_ during cool-down
  - A. 5 seconds; 45 to 60 seconds
  - B. 10 seconds; 10 to 15 seconds
  - C. 10 seconds; 20 to 30 seconds
  - D. 20 to 30 seconds; 10 seconds
- 27. Which of the following hand positions should be used in order to protect the wrist joint when doing exercises in water?

A. Bend your wrist forward against the resistance of the water when doing repetitive movements

B. Keep your hands in a straight line with your forearm while pushing against the resistance of the water

C. When pushing your hand against the pressure of the water, always press with the back of your hand facing the water

D. Bend your wrist backward against the resistance of the water when doing repetitive movements

28. Which of the following statements is NOT true?

A. When exercising in an outdoor pool, wear water-resistant sunscreen with a SPF of 15

B. Avoid eating 1 1/2 to 2 hours before exercising

C. Eat a high sugar snack one hour before exercise for an energy boost

D. People with diabetes should wear aqua shoes in the pool in order to protect their feet

- 29. In order to prevent heat-related injuries, when the water temperature is added to the percent humidity, the sum should be
  - A. Greater than 140
  - B. No higher than 150
  - C. Between 150 and 160
  - D. Between 160 and 175
- 30. In order to prevent injury and maximize benefits when incorporating water exercise equipment into your water workout, you should
  - A. Not use water exercise equipment for injury rehabilitation
  - B. Always start your moves out of the water and end them in the water
  - C. Fuse short, limited range movements to develop muscle definition quickly
  - D. Add water exercise equipment to your workout gradually, and always warm-up and stretch before using the equipment
- 31. Muscles get stronger and more fit if they are gradually made to work harder than what they are accustomed to. This fitness principle is the
  - A. Principle of specificity
  - B. Adaptation principle
  - C. Overload principle
  - D. Frequency principle
- 32. Which one of the following is NOT one of the variables of the FITT principle?
  - A. Frequency
  - B. Intensity
  - C. Tempo
  - D. Time
- 33. To increase overload, it is recommended that only one variable be increased at a time, and only increased by \_\_\_\_\_.
  - A. 5 to 10 percent
  - B. 10 to 15 percent
  - C. 20 to 25 percent
  - D. 50 percent

34. Which of the following best describes exercise specificity?

A. Increases in frequency, intensity and duration of an exercise

B. A specific muscle group or body system is not exercised for a period of time, its fitness level declines

C. If a specific body system, muscle group of fitness component is to be enhanced, then an exercise activity that works that component, system or muscle group must be performed

D. All of the above refer to exercise specificity

35. Which of the following is the correct format for structuring a water workout?

A. Warm-up Stretch, Thermal warm-up, Muscle Strengthening and Toning, Aerobic Exercise, Final Cool-down Stretch

B. Thermal Warm-up, Warm-up Stretch, Aerobic Exercise, Muscle Strengthening and Toning, Final Cool-down Stretch

C. Thermal Warm-up, Aerobic Exercise, Muscle Strengthening and Toning, Final Cool-down Stretch

D. Thermal Warm-up, Warm-up Stretch, Muscle Strengthening and Toning, Aerobic Exercise, Final Cool-down Stretch

36. The purpose of the Thermal Warm-up is to

- A. Prepare the body for increases in exercise intensity
- B. Warm-up the muscles through increased blood flow
- C. Lubricate the joints for better range of motion
- D. All of the above

37. When stretching, the muscles should be lengthened to the point

- A. Of slight pain in the muscle
- B. Of full extension of the joint
- C. Of comfortable resistance
- D. Slightly beyond your normal range of motion
- 38. For maximum improvements in your cardiorespiratory system, it is recommended that you
  - A. Do aerobic exercise at a moderate intensity for 30 minutes five days a week
  - B. Do rigorous aerobic exercise three days a week for 20 minutes
  - C. Do vigorous aerobic exercise seven days a week for 45 minutes
  - D. Both a and b will achieve improvements

- 39. Stopping aerobic exercise suddenly without a cool-down can cause pooling of blood in the limbs as well as
  - A. A buildup of lactic acid in the muscles
  - B. Prevent the body from burning fat
  - C. Prevent accurate monitoring of aerobic intensity
  - D. Cause uncomfortable turbulence in the water

40. The objective of the aerobic exercise segment is to

- A. Change only one aspect of an exercise movement at a time
- B. Progress the exercise movements from slow up to peak intensity
- C. Choose exercises that challenge different muscle groups rather than working the same ones repeatedly and neglecting others

D. Maintain the heart rate in the target zone for a minimum of 10 minutes per exercise session

- 41. The term used to describe the strength developed when the stabilizing functions of the pelvic girdle are improved is referred to as
  - A. Abdominal strength
  - B. Core strength
  - C. Functional strength
  - D. Rock belly
- 42. Which muscle(s) of the legs are almost always worked when aerobic exercises are performed in shallow water?
  - A. Soleus
  - B. Quadriceps
  - C. Hamstrings
  - D. Gastrocnemius
- 43. All of the following are exercises recommended for use in the Thermal Warm-up segment EXCEPT
  - A. Water Walk
  - B. Kick up Your Heels
  - C. Inner-thigh Step-out
  - D. Knee-lift Kick
- 44. The Thermal Warm-up should take about
  - A. 15 to 20 minutes
  - B. 3 to 5 minutes
  - C. 2 to 3 minutes
  - D. 5 to 10 minutes

45. Which of the following is NOT recommended for warm-up stretching?

- A. Hold each stretch for 10 seconds
- B. Use bouncing movements to increase the range of a stretch
- C. Stretch each major muscle group

D. If the body starts to feel cool, move the arms to keep warm while stretching the lower body

46. The first nine lower body stretches listed in the book should be done

- A. In the deep water
- B. On the pool deck
- C. Pool side while holding on to the pool edge
- D. Only in warm water

47. Which of the following stretches helps prevent Achilles tendonitis?

- A. Bent-knee calf stretch
- B. Straight leg calf stretch
- C. Lower-back stretch with ankle rotation
- D. Hamstring stretch

48. When performing the chest stretch, it is important to make sure you avoid

- A. Moving your palm to any position other than straight out from your shoulder
- B. Turning your body as one piece
- C. Twisting your torso
- D. All of the above

49. All of the following are recommended for performing stretches EXCEPT

A. Never stretch to the point of pain

B. Stretches should be held for 10 seconds during warm-up and for 20 seconds during cool-down

C. As the muscles relax, the stretch can be increased to a further degree

D. If a stretch causes discomfort, focus on doing the stretch more frequently and holding it for longer

- 50. Which of the following is NOT a method to use to increase the intensity level of your workout?
  - A. Increase the size of your movement
  - B. Increase your traveling movements around the pool area
  - C. Increase the speed of your movements
  - D. Decrease the surface area your pushing through the water

- 51. What is the common safety tip given for the aerobic moves #12 through #16 illustrated in the book?
  - A. Keep the shoulder blades down
  - B. Keep the abdominals contracted
  - C. Keep the buttocks contracted
  - D. Keep the feet flat on the ground

52. Which of the following flotation devices is NOT recommended if you have neck pain?

- A. Flotation belt
- B. Upper arm flotation cuffs
- C. Flotation vest
- D. Noodle
- 53. An aerobic cool-down is essential in order to
  - A. Gradually lower the intensity of the aerobic moves
  - B. Decrease the chance of cardiovascular events or injuries
  - C. Both a and b
  - D. Allow the body to quickly adapt to a decrease in cardiorespiratory demand
- 54. Which of the following statements about strengthening and toning exercise is FALSE?

A. Strengthening exercises that incorporate higher resistance for fewer repetitions increases strength, but not endurance

B. Maintaining muscular strength as you age helps you retain your mobility and stay physically independent

- C. Strengthening and toning exercise increases total lean body mass
- D. Strengthening and toning exercise helps in weight loss
- 55. When performing muscle training exercises in water, in order to focus on increasing strength, you should
  - A. Perform multiple repetitions of the same exercise
  - B. Add resistance equipment to the exercises
  - C. Make the majority of the exercises deep water exercises
  - D. Perform only big muscle exercises

56. Strengthening and toning exercises should be performed

- A. Every day
- B. Every three days
- C. Every other day
- D. Once a week

- 57. Decreasing the angle between two ends of a joint defines which of the following fitness terms?
  - A. Extension
  - B. Abduction
  - C. Adduction
  - D. Flexion
- 58. Developing core strength requires training all of the following muscles/muscle groups EXCEPT
  - A. Chest muscles
  - B. Abdominals
  - C. Buttocks
  - D. Pelvic muscles
- 59. When performing the outer-and inner-thigh scissors exercise, you should
  - A. Keep your toes pointing straight ahead
  - B. Lean toward the pool wall for better stability
  - C. Keep both hip bones pointing straight ahead, at equal height from the floor
  - D. Lean away from the pool wall for more resistance
- 60. Which of the following lower body exercises should not be performed if you experience knee pain?
  - A. Outer-and inner-thigh scissors
  - B. Runner's stride
  - C. Wall squat
  - D. Pivoted dip

61. The calf lift exercise strengthens not only the calf muscle, but it also strengthens the

- A. Front of the thigh
- B. Shins
- C. Feet
- D. Achilles tendon

62. Which of the following is a variation that can be used with the Sport Training Racket Sweep exercise to strengthen the rotator cuff?

A. Perform a full swing at a very slow speed focusing on using the shoulder muscles

B. Paste your upper arm down to your side, straighten your lower arm and swing the racket back an forth keeping the upper arm down close to your side
C. Bend your elbow and paste your upper arm down to your side. Swing the racket slowly front and back with the movement occurring at your elbow, keeping the range of motion controlled so that the movement does not lift your elbow away from your side

D. None of the above will work the rotator cuff

- 63. Which of the following statements regarding the upper arm curl exercise is FALSE?
  - A. This exercise only strengthens the front of your upper arm
  - B. Do not lift the hands out of the water when pressing the arms upward
  - C. Keep a slight bend in your elbow when extending the arms
  - D. Keep your elbows behind your waist
- 64. When using buoyancy equipment to perform the Wall-sit Crunch and Rock-belly Crunch, by moving the equipment to the side of the rib cage, you are working which muscle group?
  - A. Rectus abdominis
  - B. Serratus
  - C. Obliques
  - D. Latissimus dorsi
- 65. Which of the following is not a valid safety tip for performing the Wall-sit Crunch and Rock-belly Crunch exercise?

A. The pelvis should be braced firmly between an abdominal and buttocks contraction

B. Do not move up and down in a sitting motion, which can defeat the purpose of the exercise

C. Do not arch or hyperextend the lumbar spine during the release of the contraction

- D. The pelvis should be tipped forward slightly when performing this exercise
- 66. The exercises described for the back and neck (#55 through #58) are designed to
  - A. Improve body alignment and stabilization
  - B. Train your core muscles to work together
  - C. Enhance strength and flexibility in the muscles that stabilize and move your

upper back, midback and lower back as well as your neck muscles

D. All of the above

- 67. Power and plyometric techniques are so effective at accomplishing more conditioning in less time because
  - A. Power and plyometic exercises use advanced equipment in the exercises
  - B. Power and plyometric techniques combine aerobic exercise with strength training and muscle toning in a single exercise session

C. Power and plyometric exercises are always performed at a high rate of speed with no rest between exercises

D. Power and plyometric exercises are done in deep water using flotation equipment to increase resistance and drag

- 68. Power moves refers to "push-off" moves that use \_\_\_\_\_ to build strength and aerobic intensity.
  - A. Gravity
  - B. Body weight
  - C. The floor
  - D. All of the above

69. Plyometrics refers to

- A. Non-impact small jumps and hops
- B. Jump training techniques emphasizing explosive, leaping and bounding moves
- C. Slow, controlled hops across the pool area
- D. Wide stance squats performed quickly using deep knee bends
- 70. Which of the following techniques is NOT recommended as a proper technique to use when performing power moves?
  - A. Perform power moves slowly and with control
  - B. Warm up and then stretch all of the muscle groups before performing power moves

C. Add resistance equipment to increase the intensity of the workout to get results quickly

- D. Distribute your weight evenly around your body's center of gravity
- 71. One of the basic squat stances is the \_\_\_\_\_ and it emphasizes the \_\_\_\_\_ muscles.
  - A. Staggered stance; quadriceps
  - B. Narrow stance; hamstring, gluteal and hip joint
  - C. Wide stance; quadriceps
  - D. Wide stance; hamstring, gluteal and hip joint

- 72. If you were preparing to take a skiing vacation, you would do which of the following exercises?
  - A. Wide stance squats
  - B. Narrow stance squats
  - C. Staggered stance squats
  - D. Squat Knee Curl
- 73. Which of the following is an important safety tip to protect your knee joint when performing squats?
  - A. Avoid squatting lower than a 90-degreee angle at you knees
  - B. Avoid bending over or leaning forward at the waist
  - C. Make sure your knees are behind your toes
  - D. Both a and c
- 74. Which of the following is NOT one of the stretches recommended to help make proper squatting technique easier?
  - A. Straight-leg calf stretch
  - B. Hamstring stretch
  - C. Outer-thigh stretch
  - D. Deep-muscle Hip, Thigh and Buttocks stretch
- 75. Plyometric exercise is a quick, powerful movement of lengthening and then shortening the muscle, called the
  - A. Stretch-release cycle
  - B. Stretch-shortening cycle
  - C. Stretch-contracting cycle
  - D. Lengthening-shortening cycle
- 76. The muscle contracts but does not change in length describes which type of muscle contraction?
  - A. Eccentric
  - B. Isotonic
  - C. Isometric
  - D. Concentric

- 77. Plyometric exercise is very useful in aiding in injury prevention as well as rehabilitation because
  - A. It trains the muscles to extend and contract in a coordinated pattern

B. It conditions the muscle at its weakest point (when it is fully stretched) and this better prepares the body to handle this type of stress in daily activities or during sport activities

C. It aids in the development of core strength and stability, especially in untrained individuals

D. It allows athletes to simulate actual sport activities for better rehab training and long term rehab results

- 78. All of the following are valid precautions to consider when doing plyometric exercises EXCEPT
  - A. Always thoroughly warm-up before doing plyometric exercises
  - B. Plyometrics should not be done on concrete, asphalt, or other hard surfaces
  - C. Plyometrics are excellent for training children or young athletes
  - D. Avoid doing plyometric exercises two days in a row
- 79. Which of the following is the correct recommendation from ACSM and AHA for doing cardio exercise for adults under age 65?

A. Do a moderately intense workout for 30 minutes, five days a week or do a vigorously intense workout for 20 minutes, three days a week
B. Do a vigorously intense workout for 20 minutes, five days a week or do a moderately intense workout for 30 minutes, three days a week
C. Do a moderately intense workout for 30 minutes, five days a week or a vigorously intense workout for 30 minutes, three days a week or a vigorously intense workout for 30 minutes, three days a week
D. Do a moderately intense workout for 20 minutes, seven days a week or a vigorously intense workout for 20 minutes, five days a week or a vigorously intense workout for 20 minutes, three days a week or a vigorously intense workout for 20 minutes, five days a week or a vigorously intense

- 80. Which of the following best defines moderate intensity?
  - A. Working about 10 beats above your resting heart rate
  - B. Working hard enough to break a sweat, but not to the point of breathlessness
  - C. Working hard enough that you can no longer carry on a conversation
  - D. Working hard enough to reach a point of fatigue in about 10 minutes
- 81. All of the following are progressive steps you can use to create a water workout sequence EXCEPT
  - A. Identify your desired fitness profile
  - B. Establish realistic fitness goals
  - C. Start to build new fitness habits one step at a time
  - D. Make a plan for success with your long term goals

82. Which of the following body types are rounded and curvy with a pear shaped body?

- A. Ectomorph
- B. Mesomorph
- C. Endomorph
- D. Ecto-mesomorph
- 83. Which body type has a harder time losing weight and can be more prone to impact stress injury?
  - A. Endo-ectomorph
  - B. Ectomorph
  - C. Mesomorph
  - D. Endomorph
- 84. Which body type is more likely to experience back pain and should emphasize strengthening their abdominals and trunk?
  - A. Ectomorph
  - B. Mesomorph
  - C. Endomorph
  - D. Endo-mesomorph
- 85. For the best results for success with weight management, your fitness program must be combined with
  - A. A very restricted calorie diet
  - B. A healthy eating plan using guidelines from the Food Guide Pyramid
  - C. A low carbohydrate, high protein eating plan
  - D. A fat free, low cholesterol diet
- 86. What is the recommended amount of oil that should be consumed daily?
  - A. One tablespoon
  - B. One third cup
  - C. One quarter teaspoon
  - D. One teaspoon
- 87. Why is it important to add variety to your workouts?
  - A. Prevent boredom with your workout
  - B. Body adapts to the same exercise and needs different challenges to increase fitness level
  - C. Prevent stress injuries from repetitive impact to the same muscles and joints
  - D. All of the above are important

- 88. Water Tai Chi is suggested as a way to add creativity to your water workout. Other suggestions include all of the following EXCEPT
  - A. Marching Band
  - B. Water Kickboxing
  - C. Water Yoga
  - D. Water Pilates
- 89. The basic elements of Tai Chi are
  - A. Chi and energy
  - B. The 14 meridians of the body
  - C. Yin and Yang
  - D. Energy and Yang
- 90. Which of the following is NOT a safety tip for performing Water Kickboxing
  - A. Always keep your abdominal muscles tight
  - B. Kick as high as you can while maintaining your balance
  - C. Never lock out your knees and elbows
  - D. Use music that is about 122 to 128 beats per minute
- 91. Which muscles does Water Pilates focus on?
  - A. Muscles of the chest
  - B. Muscles of the lower leg
  - C. Muscles of the arms
  - D. Muscles that stabilize the spine and joints
- 92. The people who derive the greatest benefit from water exercise for rehabilitation include
  - A. Post surgical patients
  - B. Chronic pain patients
  - C. Elite or avid athletes
  - D. All of the above
- 93. One reason water exercise rehabilitation is so successful is because water minimizes pressure on all of your joints and muscles. Another reason is because
  - A. Water helps prevent the body from overheating
  - B. Water provides a relaxing environment which prevents tensing of muscles
  - C. Exercise in warm water increases circulation to the injured area which aids in healing
  - D. Working in water provides less resistance to movement minimizing re-injury

94. What is the temperature of water in a rehabilitation pool?

- A. 71 to 74 degrees
- B. 74 to 80 degrees
- C. 84 to 94 degrees
- D. 94 to 100 degrees

95. What type of exercise is used to protect or heal joint and back pain?

- A. Shallow water exercise
- B. Flotation exercise
- C. Exercises that do not use equipment
- D. Deep water exercise using a traditional life vest

96. Which of the following is NOT a key factor in water rehabilitation exercise?

- A. Avoid pain, if an exercise causes pain, stop or change the exercise activity
- B. Concentrate work on the affected weak area to make sure it is strengthened
- C. Build up the work load gradually, initially working the muscles around an injury
- D. It is critical to continue to exercise throughout the healing process along with adequate rest
- 97. Which of the following is the most common type of pain condition?
  - A. Knee pain
  - B. Back and neck pain
  - C. Feet, shoulders, hands and forearms
  - D. Hip pain

98. Aerobic water exercise is ideal for pregnant women because

A. Water exercise does not require a swimsuit, but can be done in loose, comfortable clothes

B. Water exercise reduces thermal stress by providing a cool environment

C. Water provides a cushioning effect that eliminates the danger of jumping or jarring

- D. Both b and c
- 99. Which of the following is NOT listed as a specific benefit of exercise during pregnancy?

A. Exercise helps reduce the pain, discomfort and severity of varicose veins by improving circulation and building muscular strength

- B. Exercise can help correct posture problems associated with pregnancy
- C. Exercise can ease digestive discomfort and constipation
- D. Exercise with a pointed toe can reduce leg cramps

100. Which of the following is the recommended method for pregnant women to use to determine the intensity level of their workout?

- A. A heart rate monitor
- B. The talk Test
- C. Rating of Perceived Exertion
- D. Either b or c

101. Which of the following aerobic exercise would be the least appropriate for a pregnant exerciser?

- A. Bicycle Pump
- B. Snake Walk
- C. Hurdle Hop
- D. Pedal Jog

102. The key for any prenatal exercise program is

- A. A 15 to 20 minute warm up
- B. Moderation in the exercise program
- C. To avoid doing muscle strengthening and toning exercises
- D. To keep stretches to a minimum of 5 minutes

103. Which of the following statements is true regarding the Thermal Warm up for older adults exercise programs?

A. The warm up can be short because it is the cool down that needs to be longer (at least 20 minutes)

B. The Thermal Warm up should be 10 to 15 minutes at the beginning of the aerobic sequence

C. The Thermal Warm up should be a minimum of 20 minutes with a shortened aerobic segment

D. The Thermal Warm up should be done quickly in order to get the body ready for aerobic exercise

104. What is the recommended water temperature for cardiac recovery patients to exercise in?

- A. 90 to 95 degrees Fahrenheit
- B. 85 to 90 degrees Fahrenheit
- C. 83 to 88 degrees Fahrenheit
- D. 75 to 80 degrees Fahrenheit

105. It is recommended that when adding challenge to a cardiac recovery workout, the fitness dimension that is the best place to start is

- A. Frequency
- B. Intensity
- C. Type
- D. Duration

106. Why is exercise performed in water considered one of the most beneficial methods of managing arthritis?

- A. Water temperature of 90 to 95 degrees helps improve joint mobility
- B. Hydrodynamics reduces joint stress and weight bearing
- C. Deep water exercise allows full range of motion for lower body joints
- D. Warm water improves swelling of arthritic joints

107. Which of the following is NOT an Arthritis Foundation guideline for water exercise?

- A. Breathe in a normal, deep rhythmic pattern and avoid breath holding
- B. Start and finish with simple exercises
- C. Complete at lease 20 repetitions of each exercise
- D. If a particular exercise is uncomfortable, don't do it

108. Fibromyalgia is a \_\_\_\_\_ condition, sometimes considered a form of \_\_\_\_\_.

- A. Acute; arthritis
- B. Acute; immune disorder
- C. Chronic; arthritis
- D. Chronic; immune disorder

109. Exercise can help fibromyalgia by

- A. Decreasing muscle weakness and improving strength
- B. Helping muscles to feel less stiff
- C. Increasing flexibility which increases pain free range of motion
- D. All of the above are benefits

110. If just starting an exercise program, a person with fibromyalgia should begin with \_\_\_\_\_ minutes of aerobic exercise and add one minute at time building up to \_\_\_\_\_ minutes, 2 or 3 times a week.

- A. Fifteen; 45
- B. Ten; 30
- C. Five; 30
- D. Twenty; 60