

The HIIT Advantage: High-Intensity Workouts for Women

CORRESPONDENCE EDUCATION PROGRAM # 153

**Please check your receipt for course expiration date.
After that date no credit will be awarded for this program.**





How to Complete this Program

Thank you for choosing an Exercise ETC correspondence program for your continuing education needs. To earn your CECs/CEUs you will need to read the enclosed book. After you have completed the book, take the test that is included with your program. Remember to choose the best or most correct answer.

Now Available: Instant Grading!

When you are ready to submit your test please go to our website at: www.exerciseetc.com On the left side of your screen you will see a blue, vertical bar with a list of options; click on "**Administration**" and then click "**Correspondence Course Answer Sheets.**" Choose the title of the test that you are completing and then simply follow all instructions to submit your test. **Remember to complete all fields prior to submitting your test.**

Once you submit your answers **your purchase will be verified** and your test will be corrected instantly; if you score at least 70% you will be able to print your CE certificate immediately. (If you have less than 70% correct, you will need to take test over again in order to qualify for the CECs/CEUs.) **If we are unable to verify your purchase you will receive a message requesting that you call our office for instructions.**

VERY IMPORTANT: Please make sure you have access to a working printer when you submit your test as your CE Certificate must be printed before you close out your testing session.

Good luck! If you have any questions or comments, please feel free to call us any time at 1-800-244-1344 or e-mail us at: info@exerciseetc.com



LEARNING OBJECTIVES

After reading *The HIIT Advantage: High-Intensity Workouts for Women*, the participant will be able to:

1. Understand the concepts of high-intensity interval training and how it differs from other types of exercise programs
2. Know the benefits of incorporating HIIT programs into various training and workout sessions
4. Correctly implement the concepts of popular protocols
5. Address the issues of recovery and how/when to incorporate it properly into a workout.
6. Design and safely modify appropriate exercises using appropriate equipment
7. Select proper exercises for the warm up and cool down
8. Understand the appropriateness and know when to implement advanced exercises for clients
9. List components of proper exercises for upper and lower body as well as core
10. Select appropriate exercises for mixing max interval, mixed interval, hard, harder, and hardest exercises
11. Select and provide appropriate exercises for timing your workouts to avoid fatigue



CEC/CEU TEST FOR:

The HIIT Advantage: High-Intensity Workouts for

Women

This is an multiple choice exam. Please circle the best answer.

- 1. HIIT programs are also known as:**
 - a. Anaerobic and rest
 - b. Burst and recovery
 - c. Work and rest ratio
 - d. Fartlek and recovery

- 2. What is the earliest the book mentions that HIIT programs appeared to exist?**
 - a. 1980 Olympics
 - b. 1970 Olympics
 - c. 1930
 - d. 1912

- 3. Which method utilizes a 3-minute warm up, followed by 60 seconds of intense exercise, followed by 75 seconds of rest all repeated for 8-12 cycles?**
 - a. The Gibala regimen
 - b. Tabata
 - c. Fartlek
 - d. Lactic Acid

- 4. What is the name given to the type of approach to interval training where the interval and recovery period is neither systematic nor controlled?**
 - a. The Little method
 - b. Fartlek
 - c. Discontinuous interval training
 - d. Steady state method

- 5. What is considered to be the body's upper limit for consuming and distributing oxygen throughout the body?**
- Anaerobic threshold
 - VO₂max
 - Cardiac output
 - Stroke volume
- 6. For healthy individuals, what is considered to be the normal VO₂max during steady-state workouts?**
- 60-90%
 - 55-85%
 - 50-70%
 - 40-75%
- 7. Which of the following is not one of the parameters used to measure aerobic overload?**
- Stroke volume
 - Heart rate
 - Contractility
 - Energy demands
- 8. What increases preload of the heart?**
- Quick return of blood to the heart
 - Cardiac output
 - Decreased filling of the heart with blood
 - Increases in blood pressure due to exercise response
- 9. All of the following are considered benefits of aerobic activity EXCEPT:**
- Increased heart muscle size
 - Increased reliance on fat for energy
 - Increased number of mitochondria
 - Decreased rate of oxidized enzyme efficiency
- 10. A recovery time that is either the same as or slightly less than the amount of time you engage in high-intensity microburst intervals is known as:**
- Active recovery
 - Positive recovery
 - Negative recovery
 - Passive recovery

- 11. When you are breathless with fatigue after working really hard, this is referred to as:**
- a. Negative recovery
 - b. Oxygen debt
 - c. Anaerobic threshold
 - d. VO₂max
- 12. Which is not used primarily during endurance exercise?**
- a. Aerobic glycolysis
 - b. Lactic Acid System
 - c. Fatty acid oxidation
 - d. The use of Type I fibers
- 13. What is able to occur during the onset of blood lactate accumulation?**
- a. The ability to talk during exercise
 - b. The ability to use all of your ATP for energy
 - c. The ability of the body to accumulate lactic acid
 - d. Delayed onset muscle soreness
- 14. Which system uses most of our ATP in the first 10 seconds of high intensity exercise?**
- a. Glucagon system
 - b. Glycolytic system
 - c. Lactic Acid system
 - d. Phosphate system
- 15. What is the main limiting factor in energy production?**
- a. Gluconeogenesis
 - b. Mitochondrial depletion
 - c. ATP depletion
 - d. Lactic acid production
- 16. What is it called when the blood buffers work hard to decrease the lactic acid build-up?**
- a. EPOC
 - b. Gluconeogenesis
 - c. Acidosis
 - d. OBLA

- 17. Which of the following is an expected physiological outcome of HIIT?**
- Decreased use of Type II muscle fibers
 - Higher calorie burn *during* exercise than with aerobic endurance
 - Increase use of carbohydrates for fuel
 - Increase in size and number of mitochondria
- 18. In Perry, et al's 2008 research, he found that:**
- Mitochondria increased in size and number
 - Fat burning was significantly higher after 6 weeks of HIIT
 - ATP is completely used up in HIIT training
 - EPOC does not need to occur after HIIT
- 19. What plays a big role in weight management with HIIT programs?**
- EPOC
 - ATP
 - OBLA
 - HMOs
- 20. What hormones help to minimize muscle damage and speed up repair?**
- Testosterone and cortisol
 - Cortisol and protein
 - Adrenaline and cortisol
 - Adrenaline and testosterone
- 21. What are the two readily available energy sources that are vital to exercise?**
- Carbohydrates and protein
 - Protein and fats
 - Blood glucose and muscle glycogen
 - Blood insulin and muscle glycogen
- 22. What are the two limiting factors in energy production when anaerobic pathways have to generate ATP?**
- Experience and motivation
 - Muscle glycogen stores and usage
 - Frequency and rest
 - Time and intensity

23. The acute phase of recovery is called the:

- a. Passive recovery
- b. In-workout recovery
- c. EPOC recovery
- d. Short term recovery

24. Chronic recovery is defined as:

- a. Recovery that occurs within a training phase
- b. Recovery that occurs between workouts during a training week
- c. Recovery that is a linear periodization cycle
- d. Recovery that occurs between training bouts

25. Which of the following is not a recommended ratio of work to recovery for the HIIT program in this book?

- a. 4:1
- b. 3:1
- c. 2:1
- d. 1:1

26. How long should one wait between HIIT workouts?

- a. Less than 1 day
- b. 5 minutes
- c. 24 hours
- d. 30 minutes

27. Which of the following is NOT a sign of overtraining?

- a. Insomnia
- b. Decreased resting heart rate
- c. Unexpected weight loss
- d. Gradual increase in muscle soreness

28. If your client is performing a 45 minute HIIT workout, how long should they warm up?

- a. 3-5 minutes
- b. 5-10 minutes
- c. 5-7 minutes
- d. 5 minutes

- 29. Which of the following is not a recommended guideline when performing self-massage with a foam roller?**
- Roll once or twice a day as long as you are comfortable
 - Work on muscular knots until they go away to help release muscle tension
 - Maintain good posture and core control while rolling
 - Stretch the worked muscles after each rolling session
- 30. How far should you roll on the foam roller when performing self-myofascial release?**
- 5-8 inches
 - 2-3 cm
 - Full length of the muscle
 - 7 cm
- 31. Who is best suited for linear periodization?**
- Those with specific goals
 - Those who have had injuries
 - Those with no experience
 - Those with varied expectations
- 32. Which is not a typical procedure for Tabata training?**
- 8 rounds of 30 seconds each
 - 20 seconds of passive recovery per set
 - Total of 4 minutes training time
 - 2:1 ratio format (work:rest)
- 33. Which Tabata technique is the most challenging?**
- Max interval
 - Mixed interval
 - Timing interval
 - Frequency interval
- 34. Which is not an example of an exercise to use during the Tabata Max Interval training?**
- Jump squats
 - Power lunges
 - Push-ups
 - High-knee running in place

35. What is the main difference between the mixed interval protocol and the max interval protocol of Tabata?

- a. Ratios of work to rest are different
- b. Mixed interval uses a slightly lower intensity
- c. Full length of the workout is longer for the mixed interval
- d. Max interval offers more exercise variety

36. When using the timing interval protocol for Tabata, how many exercises are included?

- a. 6-7
- b. 1
- c. 2 or 4
- d. 4-8

37. Which is not a proper protocol for the Little Method?

- a. The high intensity training should last 60 seconds
- b. There are 12 rounds
- c. The range for the intensity should be between 40-75% VO₂max
- d. The low intensity training should last 75 seconds

38. Discontinuous training is also known as:

- a. MIIT
- b. Hard, Harder, Hardest Method
- c. The Gibala Method
- d. Fartlek Training

39. Which tool has a steeper learning curve?

- a. Suspension trainers
- b. Gliding discs
- c. Mini-trampolines
- d. Stability balls

40. When performing HIIT, what is typically the highest weight you should use when incorporating dumbbells?

- a. 15 lbs.
- b. 20 lbs.
- c. 12 lbs.
- d. 12 kg.

- 41. Which muscle is not a part of the quadriceps group?**
- a. Sartorius
 - b. Vastus Intermedius
 - c. Rectus femoris
 - d. Vastus lateralis
- 42. Which is not the proper method to perform the hip hinge?**
- a. Stand with feet shoulder or hip width apart
 - b. Shift pelvis into an anterior tilt
 - c. Bend first at the knees, then at the hips
 - d. Knees bend only slightly
- 43. Which of the following is incorrect form for the Squat-to-Heel Raise?**
- a. Lower the tailbone towards the floor
 - b. Keep the neck neutral
 - c. Allow the heels to drop out slightly
 - d. Rise to the balls of the feet
- 44. When performing the Offset Stance Squat, which of the following is improper form?**
- a. Place the back foot at a slight 45 degree angle
 - b. Lift the heel of the back foot
 - c. Keep the weight evenly distributed
 - d. Increase intensity by adding a jump
- 45. When performing the Plie' Squat, the toes turn outward until you feel a contraction in which muscles?**
- a. Gluteals
 - b. Hip flexors
 - c. Quadriceps
 - d. Abductors
- 46. When performing the Wood Chop Squat, which of the following is incorrect form?**
- a. Lower into a squat position
 - b. Hands are pressed together in a prayer position
 - c. Stand with your feet wider than hip width
 - d. Rotate the spine as you move your arms from shoulder to opposite knee

- 47. Which of the following is considered to be a Foundational Movement 2 exercise?**
- a. Burpee
 - b. Lunges
 - c. Squat
 - d. Wood chop
- 48. Where should you focus your eyes during the Lateral Lunge with Touch?**
- a. Your feet
 - b. The opposite wall
 - c. 2-3 feet in front of you
 - d. 3-5 feet in front of you
- 49. The starting position for the Dolphin Push-up exercise?**
- a. Lunge
 - b. Squat
 - c. Plank
 - d. Push-up
- 50. The purpose of plyometrics in HIIT is to:**
- a. Create specificity
 - b. Create physical over load
 - c. Create a greater concentric contraction
 - d. Create a sports specific activity
- 51. How often should plyometrics be incorporated into your workout?**
- a. 2-3 consecutive days per week
 - b. Once per week
 - c. Every day
 - d. 2-3 nonconsecutive days per week
- 52. Which statement is false when training the upper body muscles?**
- a. You will notice less muscle fatigue
 - b. It typically takes only 6-8 workouts to adjust to a particular exercise
 - c. You will need to perform a variety of exercises to maintain a progressive overload
 - d. Upper body muscles should be trained as a group

- 53. What is considered to be the largest of the upper-body muscle?**
- a. Latissimus dorsi
 - b. Pectoralis major
 - c. Trapezius
 - d. Serratus posterior
- 54. Which of the following is not part of the SITS muscles that make up the rotator cuff?**
- a. Supraspinatus
 - b. Teres major
 - c. Infraspinatus
 - d. Subscapularis
- 55. What is the foundational movement for all prone hand-or-forearm-stabilized moves?**
- a. Push-up
 - b. Plank
 - c. Modified push-up
 - d. Military push-up
- 56. Which of the following is incorrect positioning for the start of the plank exercise?**
- a. Fingers spread
 - b. Index fingers pointing forward
 - c. Elbows pointing slightly
 - d. Toes dug into the floor
- 57. What is the foundational movement 2 for upper body?**
- a. Planking
 - b. Pressing only
 - c. Pulling only
 - d. Pulling and pressing
- 58. Which is not proper procedure for the Lat Pulldown?**
- a. Keep tension in the tubing
 - b. Pull the tubing down to your chest
 - c. Hold the tubing at chest level for a short pause
 - d. Hold the tubing above and in alignment with your head

59. Which is not proper form for the Upright Row with Tubing?

- a. Start with your hands in front of the thighs
- b. Allow elbows to drive up and out
- c. Bring the handles up to just above shoulder height
- d. Maintain an extended neck

60. The core muscles extend from where to where on the body?

- a. Collar bone through the middle of the thigh
- b. Sternum to the pelvis
- c. Sternum through the middle of the thigh
- d. Collar bone to the pelvis

61. The center of gravity is typically located where?

- a. Waist
- b. Mid chest
- c. Belly button
- d. Pelvis/hips

62. The main purpose of the core muscles is to:

- a. Decrease back pain
- b. Create stability of the trunk
- c. Limit and control rotational multiplanar motion
- d. Hold us upright

63. Which is not one of the major muscles of the core?

- a. Diaphragm
- b. Transverse abdominis
- c. Iliopsoas
- d. Gluteals

64. Which muscle is the deepest of the anterior core muscles?

- a. Internal obliques
- b. External obliques
- c. Transverse abdominis
- d. Rectus abdominis

65. The transverse abdominis primarily responds to:

- a. Isometric contractions
- b. Breathing
- c. Isotonic contractions
- d. Dynamic movements

- 66. Why are there so many core exercises?**
- a. Because everyone wants the 6-pack
 - b. Because the core spans over such a large area of the body
 - c. Because practice is needed to master the subtle movements
 - d. Because it is the main portion of the HIIT program
- 67. Which of the following muscles needs to be lengthened due to too much sitting in order to avoid low back problems?**
- a. Gluteals
 - b. Hamstrings
 - c. Hip flexors
 - d. Quadriceps
- 68. Which muscle is the most important when it comes to being able to propel the body forward?**
- a. Hip flexors
 - b. Quadriceps
 - c. Hamstrings
 - d. Gluteals
- 69. Which gluteal muscle is the deepest?**
- a. Medius
 - b. Minimus
 - c. Maximus
 - d. Middle
- 70. Which of the following is not recommended when performing core exercises in your HIIT program?**
- a. Avoid eating until after your morning workout
 - b. Listen to your body
 - c. Choose quality over quantity
 - d. Be careful with blood pressure
- 71. If you struggle holding the hips stable while performing the tap for the Plank with Shoulder Tap, you should:**
- a. Rest, then start back up
 - b. Widen your arm placement
 - c. Widen your feet stance
 - d. Perform the exercise on the knees

72. Which of the following is incorrect when performing the Forearm Side Plank with Reach?

- a. Make sure the hips are stacked
- b. Raise the hand towards the ceiling
- c. Legs are extended out to the side
- d. The top leg is the back foot

73. When performing the Swimmer exercise, which statement is correct?

- a. Lift one arm about 6 – 9 inches off the floor
- b. Lift one leg about 3-6 inches off the floor
- c. Lift both legs at the same time 6 - 9 inches off the floor
- d. Lift both arms at the same time 12 inches off the floor

74. Which of the following exercises is not considered to be a Foundational Movement 2? Exercise?

- a. V-sits
- b. Step Back Burpee
- c. Eagle Wrap Reverse Crunch
- d. Standing Wood Chop

75. As volume of training increases:

- a. Your frequency should increase
- b. Your efforts should decrease
- c. Your efforts should increase
- d. Your frequency should decrease

76. Max Intervals are primarily used for:

- a. Power and aerobic cardio
- b. Agility and power
- c. Power and strength
- d. Power and anaerobic cardio

77. All of the following qualify for the max interval program EXCEPT:

- a. Bigger and faster may be better
- b. The exercises must create a fatigue response right away
- c. Movement patterns should demonstrate triple flexion
- d. All fitness levels should be able to experience every move without limitations

78. Built in “on-ramps” are for:

- a. Make the exercises longer
- b. Make the exercises shorter
- c. May the exercises less challenging
- d. Making the exercises more challenging

79. Which of the following exercises becomes more intense when the movement is slowed down?

- a. Plank to pike
- b. V-sit up
- c. Plank
- d. Mogul twist

80. Which statement is false concerning exercise order?

- a. Order is important for the max interval program
- b. For mixed intervals, perform exercise 2 for rounds 3 and 4
- c. For hard, harder, hardest, start with large muscles and work towards the small muscles
- d. For mixed intervals, perform exercise 1 for rounds 1 and 2 as well as 5 and 6

81. Tubing can be incorporated into all of the upper body exercises EXCEPT:

- a. Triceps press
- b. Lat pulldown
- c. Push ups
- d. Chest press

82. Which statement is false concerning HIIT workouts?

- a. One 4-minute HIIT sequence program should never be performed daily
- b. Full HIIT workouts are not recommended daily
- c. 4 minute Tabata sequences are ideal for increasing your level of fitness
- d. The 4 minute HIIT programs will increase your caloric expenditure

83. Which statement is false concerning active recovery workouts?

- a. It means no workout
- b. Do not cross into anaerobic threshold
- c. Perform them on the days between your HIIT workouts
- d. Perform for 20-60 minutes

84. Which of the following does not happen during the warm-up?

- a. Hormone release increases
- b. Body temperature decreases
- c. Risk of injury decreases
- d. Blood flow increases

- 85. Which of the following is not recommended for the warm up?**
- Use rhythmic flexibility movements
 - Perform light intensity cardio activity
 - Perform body weight exercises with increased range of motion
 - Use fast-paced but flowing movements
- 86. When performing the Quadruped Should Reach with Creep, how far should you lift the opposite knee off the floor?**
- 5 cm
 - The knee does not lift off the floor
 - 7 inches
 - 7 cm
- 87. When cooling down, you should:**
- Keep intensity the same, but decrease speed
 - Keep speed the same, but decrease intensity
 - Stop and rest
 - Slow down, but not stop
- 88. What is the sign that you have not cooled down properly?**
- Reduced breathing rate
 - Continued sweating
 - Muscle soreness
 - Fatigue
- 89. How long should each stretch be held after the cool-down?**
- At least 10 seconds
 - At least 30 seconds
 - 30-45 seconds
 - At least 60 seconds
- 90. How many times should you pull your knee to your chest in the Back-lying Knee to Chest stretch?**
- Once
 - 3 times
 - 2 times
 - 4 times
- 91. Where should you feel the Supine Figure Four stretch?**
- Gluteals and quads
 - Quads and hamstrings
 - Gluteals and piriformis
 - Lateral hip and hamstring

- 92. Which is incorrect procedure when performing the Supine Twist?**
- Drop your legs to one side
 - Turn your head to the side if comfortable
 - Lift the shoulders slightly off the floor
 - Think about twisting with your center
- 93. Which statement is incorrect for the Cat and Cow Stretch?**
- Gently arch your back and lift your chin
 - Tuck your tailbone when performing the cat stretch
 - The cow stretch is when the chin is tucked and the back is arched
 - Repeat moving between the two stretches 4-6 times
- 94. Which type of HIIT requires only performing one exercise?**
- Max interval
 - Hard, harder, hardest
 - Mixed intervals
 - Tabata
- 95. If one rule could be recommended for HIIT, it would be:**
- If you are pressed for time, you should wait to perform HIIT
 - Results will occur if your movements are high quantity
 - The longer the workout the better
 - Quality over quantity
- 96. The 20-minute workouts in the book require:**
- Tools and toys
 - Your body weigh
 - Experience
 - A lot of space
- 97. When performing the 45-minute hard, harder, hardest intervals and the time is 2 minutes and 5 seconds, what should you do?**
- Perform the sequence twice
 - Perform the sequence only once
 - Cool down
 - Increase the intensity
- 98. What is the key difference between the 45 minute workout vs the 20- and 30-minute workouts?**
- The core is included in the 45 minute workout, but not in the 20- or 30-minute workout
 - There is no max interval sequence in the 45 minute workout
 - You will not cross over into anaerobic threshold with the 45 minute workout
 - The intensity varies more in the 45 minute workout

99. How long should you warm up (minimum) before the four-minute microburst Tabata workouts?

- a. 1 minute
- b. 3 minutes
- c. 5 minutes
- d. 3-5 minutes

100. If you are short on time, what is the minimum length of time you would need to perform Tabata to help you stay on track for weight loss goals?

- a. Four 4-minute interval sequences a day
- b. One 4-minute interval sequence a day
- c. One 20 minute interval sequence a day
- d. Five 20 minute interval sequences per week