



Heart Rate Training

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Introduction

Reading a heart rate monitor and knowing the training zones is the first step. Understanding how to interpret the numbers and what factors influence the heart rate is another. This workshop helps participants to truly understand what numbers are important to creating a heart rate training program and how to utilize the numbers that are produced to drive training outcomes.

Objectives

- Review the normal cardiovascular response of a training session
- Identify the variables that can affect heart rate
- Develop a systematic evaluation method for deciphering heart rate response
- Learn how to make adaptations in a training regimen based upon heart rate response

Normal Cardiovascular Response During Training

Respiratory Response During Training

Determining Training Heart Rates

- Methods
- Necessity to retest
- Select populations
- Sport-specific

Factors Affecting Heart Rate

- Mechanical
- Calculation
- Lifestyle
- Environmental
- Physical
- Recovery
- Training
- Medications
- Mental Effort

Systematic Approach to Evaluating Heart Rate Response

- Evaluate workload
- Evaluate factors affecting HR

Making Adjustments to Training

- Resting heart rate
- Recovery heart rate
- Environmental factors
- Injury patterns
- Overtraining syndrome

Case Study

Bike Test to Determine HRT Zones

Threshold Test Protocol in a Class on the Spinner® Bike

Student Homework:

The week before this test, students should track their heart rate first thing in the morning before they get out of bed for five days in a row. The best way to achieve this would be to use a heart rate monitor and record the lowest heart rate. A second option would be for them to lie still and manually take their pulse at their wrist for a full minute five days in a row. They should average the heart rates to get their resting pulse rate and report their results to their Spinning® 8-Week Weight Loss Program leader.

Tools Required:

1. Spinner® Bike (for all students)
2. Heart rate monitor (for all students)
3. Borg's Rating of Perceived Exertion Scale (large enough so that all students can read it)
4. A list of students' names
5. Pen
6. Timer/clock

All students should be well rested, fueled and hydrated. Avoidance of alcohol, caffeine or any drug that alters heart rate response for 24 hours before the test is ideal.

Test Protocol:

1. Instruct students through a 15-minute warm-up. The goal is to gradually get their intensity up to a 13 on Borg's Rating of Perceived Exertion Scale (low end endurance). Once they reach a 13, encourage them to hold their heart rate steady until they reach 15 minutes.
2. At 15 minutes, coach students to raise their heart rate 5 beats* and hold it steady. At the end of the minute ask them to evaluate their intensity by choosing a number off of Borg's Rating of Perceived Exertion Scale.
3. At 16 minutes, coach students to raise their heart rate 5 beats* and hold it steady. At the end of the minute ask them to evaluate their intensity by choosing a number off of Borg's Rating of Perceived Exertion Scale.
4. At 17 minutes, coach students to raise their heart rate 5 beats* and hold it steady. At the end of the minute ask them to evaluate their intensity by choosing a number off of Borg's Rating of Perceived Exertion Scale.

**Students can choose how to elevate their heart rate by using one of the core Spinning movements, changing cadence or changing resistance.*

5. The test should continue until each student reaches a 17 of Borg's Scale and/or their lactate/anaerobic threshold. *Note: Lactate/anaerobic threshold is the point at which an individual starts to encounter fatigue. It is usually accompanied by an audible change in breathing.*
6. Once the student reaches a 17, they need to note and memorize their heart rate (at threshold), raise their hand (so the instructor knows they are at threshold) and settle into a Seated Flat while holding the heart rate steady until all other students reach threshold.
7. Once everyone reaches a 17 (the start of fatigue, an audible change in breathing) the test is over. Record every student's threshold heart rate and coach them through a 5–10 minute cool-down.

This test is best taught off the bike by the instructor. This gives you, the instructor, the opportunity to more quickly record threshold heart rates and listen for the audible change in breathing at threshold. Now that the resting heart rate and threshold heart rates are known, you have key information that will enable you to accurately determine individualized Spinning Energy Zones™.

**Please remember to submit a session evaluation.
Your feedback is important to us!**