



SPINNING® AND THRESHOLD TESTING

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OVERVIEW

The purpose of this workshop is to provide Certified Spinning® Instructors an active learning experience with the protocols used for performing a sub-maximal threshold test using a Spinner® bike, metronome and heart rate monitor in order to be introduced to the skills necessary to offer it to participants of the Spinning program.

OBJECTIVES

- 1) Why Sub-maximal Training?
 - a. Reduced risk
 - b. Simple and affordable
 - c. Results relate directly to programming
- 2) Legal Documents / Pre-test Screening
 - a. Health / Medical History / ParQ
 - b. Medical Clearance
 - c. Informed Consent
 - d. Instructions for Testing Day
- 3) Testing Protocols
 - a. 24-hour Preparation
 - b. Caffeine / Smoking / Medication Guidelines
 - c. Indications for stopping a test
 - d. Skewed results

**Please remember to submit a session evaluation.
Your feedback is important to us! WSSC 2019**

4) Equipment needed:

- a. Heart Rate Monitor
- b. Metronome
- c. Spinner® Bike
- d. RPE Chart
- e. Tinaka formula: $208 - (\text{age} \times 0.7)$
- f. Testing Instructions
- g. Results Worksheet
- h. Calculator
- i. Stopwatch (blood pressure unit recommended)

5) Instructions:

- a. Gather health background information from subject; take resting heart rate and BP if applicable. Do bike set up. Ensure HR monitor is working. Set metronome at 70 BPM. Calculate MHR using $208 - (\text{age} \times .7)$ and then calculate for 50, 60, 65, 70, 75, 80 and 85% and record the data.
- b. W-up #1: use light resistance at 70 RPMs and bring HR to 50-60% and maintain for 3:00.
- c. W-up #2: increase resistance to bring HR to 65% and maintain for 3:00.
- d. Begin work stages by increasing resistance at the beginning of each stage 1-2 “gears” with a goal of increasing HR 8-10 beats by end of stage while maintaining 70 RPM’s.
- e. Record changes in HR and RPE at least 30 seconds prior to end of each stage.
- f. Goal is to get to the perceived LT within 3-5 stages. The RPE should be hard to very hard or an 8 and changes to breathing will usually be heard. The work level is becoming uncomfortable and difficult to maintain 70 RPM’s
- g. Once the subject has reached LT, cool-down for at least 5 minutes and get HR < 65%.
- h. Go to the next step of calculating the training zones using the LT HR from the test.

Name:	Age:	Gender:	Date:
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MHR Formula	50%	60%	65%	70%	75%	80%	85%
208 – (age x .7) =							

Sub Max Testing Procedure Record data :30 before end of stage	Gear: L/M/H	Heart Rate	RPE 0-10	RPM	BP
W/Up Stage One 0:00-3:00					
W/Up Stage Two 3:00-6:00					
Stage One: 0-2:00					
Stage Two: 2:00-4:00					
Stage Three: 4:00-6:00					
Stage Four: 6:00-8:00					
Stage Five: 8:00-10:00					

Zones = % of LT	Calculations	RPE / feels	Application
1 = 65-81%		5 / easy / light	Recovery
2 = 82-88%		6 / moderate	Low end aerobic
3 = 89-93%		7 / moderately hard	Mod aerobic
4 = 94-100%		8 hard	Upper end aerobic
5a = 100-102%		9 very hard	Super threshold
5b = 103 -105%		9+ extremely hard	Anaerobic
5c = 106% & up		10 maximal	Anaerobic to max

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- 6) Application to the Spinning® program
 - a. 65-81% of LT: warm-ups, recovery and cooldowns
 - b. 82-93% of LT: endurance
 - c. 89-102% of LT: strength
 - d. 82-93% of LT: aerobic intervals
 - e. 82-102% of LT: lactate threshold intervals
 - f. 82-106% or > of LT: anaerobic intervals
 - g. 106% and > of LT: race day

SUMMARY

Results obtained during this workshop may be skewed for a number of factors. For instance, participants are practicing on each other and not expected to be fully competent at all of the skills. Also, testing protocols concerning rest, food, hydration may not be manageable in the environment of a fitness conference.

The goal of this workshop is to experience both giving and receiving this test in order to build understanding of it as well as confidence in the ability to provide it as an option for your clients at your facility.