

SESSION #5119

KEISER GROUP INDOOR CYCLING HIIT: FROM SCIENCE TO REAL LIFE RIDES

Presented by: Linda Webster

Running short-term H.I.I.T. programs on the bike can increase revenues and enable riders to see results in a short time. With HIIT being a workout staple, experience how responsive the Keiser M3i is to interval training and discover new formatting ideas that go beyond the science to applied experiences. Layer in a marketing plan and you have a HIIT program that is results-based and revenue-driven!

Improving Cardiovascular Fitness

- The standard method to improve cardiovascular conditioning was to increase the volume of exercise through duration of exercise (i.e. longer runs, rides, swims).
- Based on research, intensity training can yield high gains in less time than high-volume continuous exercise. Both have benefits and exercise prescription depends on the best fit for the client.

Benefits of Intensity Training versus Traditional Endurance Training

1. Increase RMR for up to 24 hours due to an increase in EPOC.
 - After an exercise session, oxygen consumption (and thus caloric expenditure) remains elevated as the working muscle cells restore physiological and metabolic factors in the cell to pre-exercise levels. This translates into higher and longer calorie burning after exercise has stopped (ii)
2. Improvements in VO2max.
3. Improvement in athletic performance of well-trained athletes.
4. Improved fat burning, may lower insulin levels, improved skeletal muscle fat oxidation and may improve glucose tolerance; thus improving the health of recreational exercisers.
5. Provides the benefits of continuous-endurance training but in fewer workouts (Daussin et al. 2008).

Other Considerations

Work: Intensity, Duration and Frequency of the High Effort (5 seconds to 8 minutes)

Power training = 5-30 seconds

Endurance Training = 30 seconds-8 minutes

Recovery: The correct Recovery time based on Intensity

Either passive recovery (very little movement) to active recovery

Based on ratios (i.e. 1:3) and generally depend on energy system focus.

Types of Training

High Intensity Interval Training (HIT)

- Maximal sustained effort for 4 minutes with variable recovery (i.e. 6 sets, 4 minutes each, recovery from 1,2 or 4 minutes)

Moderate Intensity Steady State (MIR)

- Light to moderate exercise; restorative in nature (30 minutes – 1 hour)

Sprint Interval Training (SIT)

- Repeated all out efforts; 30 seconds with 4.5 minutes recovery (3-4 sets)

Tabata-style Interval Training

- 20 seconds of high intensity with 10 seconds of rest for 8 sets; 3 minutes of recovery between

Tabata's

Original Tabata: 20 seconds of intense work, followed by 10 seconds recovery x 8 sets. Total time: 4 minutes

Short Modified Tabata: 10 seconds of intense work, followed by 20 seconds recovery x 8 sets. Total time: 4 minutes.

Long Modified Tabata: 40 seconds of intense work, followed by 20 seconds of recovery for 4-6 sets. Total time: 4-6 minutes

Short Intervals

Short Interval Extreme: 30 seconds intense work followed by 15 seconds of recovery for 4 sets. Total time: 3 minutes.

Short Intervals Hard: 30 seconds of hard work followed by 30 seconds of recovery for 4-6 sets. Total time: 4-6 minutes.

Long Intervals

Long Intervals: 60 seconds to 3 minutes of intense work followed by a recovery time equal to work time of 1:1, 1:1½ or 1:2.

Interval Variations

Progressive Intervals: 3 sets of intervals increasing in intensity followed by recovery. Building on the intensity of each set, there is no rest between sets. Duration is 60 seconds x 3 sets, followed by a full recovery. The goal is to build an interval training base.

Pyramid Intervals: Increasing duration of intensity with equal recovery time, between works sets followed by active recovery. The goal is to prepare for more challenging intensities while keeping the heart rate elevated throughout the work sets.

The Little Method: Developed by Dr.'s Johnathan Little and Martin Gibala in 2009. It involves high-intensity workouts at 95% of one's VO2 max. The protocol calls for 60 seconds of high intensity followed by 75 seconds of low intensity. Repeat for a total of 12 cycles (totaling 27 minutes).

Planning the Program:

1. Take a 'real life' approach to intensity training
 - a. Use the research as a 'guideline' only; modify as needed
2. Ensure riders have a good cardio base (ability to complete 30 minutes of steady state cardio)
 - a. Determine an individuals current exercise status and fitness goals
 - b. Determine if there are any physical challenges that limit movements or intensity
 - c. Provide regression and progression options; teach to the majority and modify
3. Make sure every single workout isn't intensity based; too much of a good thing is never good
4. Create an overall fun ride; class flow, drill choices, and connection with the group all matter

Marketing HIIT Programs

- Develop a progressive 6-week program
- Create a call-to-action marketing plan
- Market benefits (results, time-efficient, etc.)
- Re-engage them prior to the program finishing