

# HIIT or Miss?

## How to Properly Design Your Next Interval Class for Specific Training Adaptations

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# What is HIIT?

“True HIIT has origins in performance, whereby an athlete aims to get bigger, stronger or faster, or enhance sustained performance.

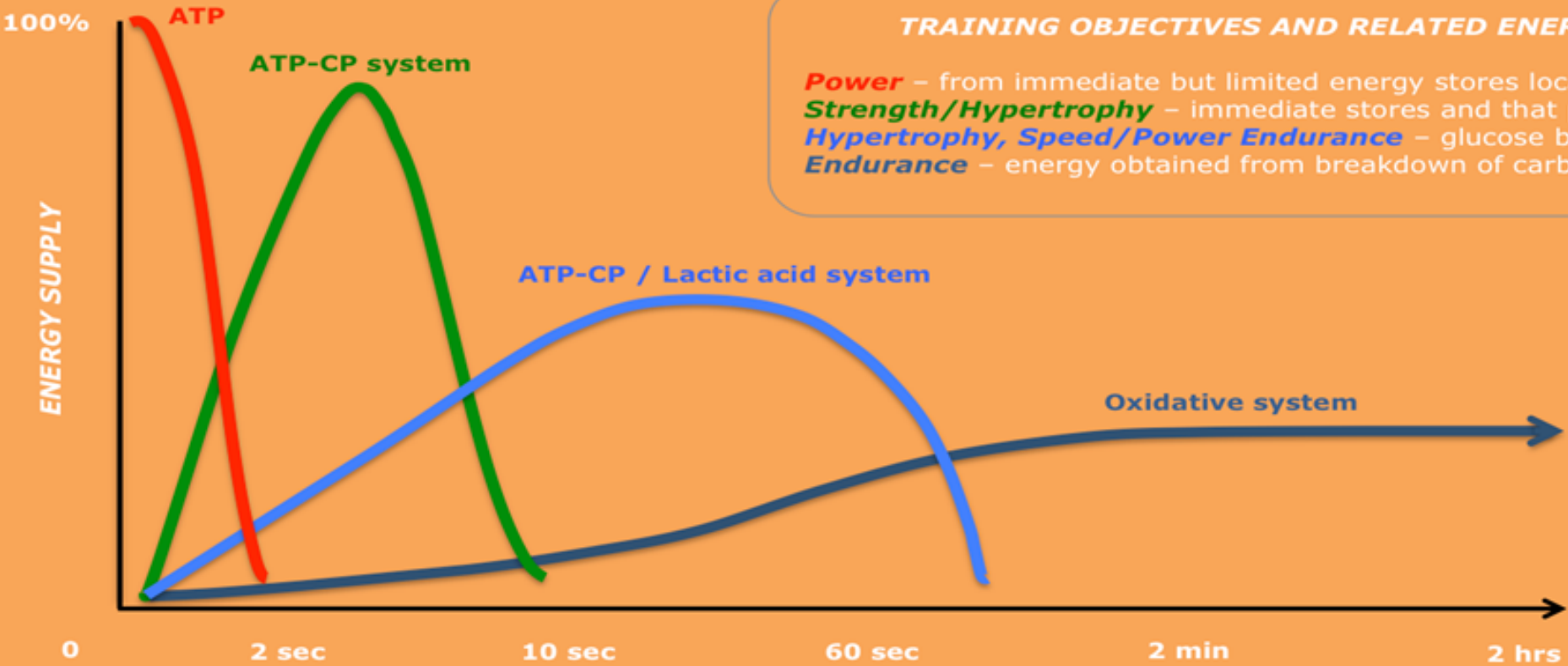
The training purpose is to systematically overload systems with intense training through repetitions and, then, take appropriate recoveries to enable near maximal performance or sustained intensities.”

Bottom line, this is not always what we are seeing done in workouts that are labeled HIIT and that has a variety of consequences.

*~Fabio Comana, exercise physiologist and fitness industry educator*

# Energy Development Systems at Work

## How interplay between energy pathways dictates training objectives



### TRAINING OBJECTIVES AND RELATED ENERGY SOURCES

- Power** – from immediate but limited energy stores located in the muscle cells
- Strength/Hypertrophy** – immediate stores and that produced in the muscle
- Hypertrophy, Speed/Power Endurance** – glucose breakdown to lactic acid
- Endurance** – energy obtained from breakdown of carbohydrate and fat stores

What is Your Desired Training Effect?

# The Issue

- Aerobic 'slop'
- Just because you are tired and sweaty after a workout does not indicate any athletic conditioning has taken place
- Musculoskeletal strain and injury
- Cellular damage beyond autophagy

# How to Properly Perform HIIT

- HR monitoring does not always work to measure high intensity (work time) and lower intensity intervals (recovery period).
- WORK TO REST - This is a simple way of constructing your HIIT session, using a set work and rest time we can easily follow a timing system as an indicator as to when the work interval finishes and the recovery period begins. Typically rest for 2-5 times the work interval.

# Designing HIIT for Maximal Performance

	<b>Max</b>	<b>Work:rest</b>			<b>Work Volume</b>
• ATP-CP					accumulated
• Glycolytic					accumulated
• Oxidative					accumulated
<b>**work</b>	<b>% MHR</b>	<b>rest</b>	<b>% MHR</b>	<b>recovery</b>	<b>% MHR**</b>

Work to rest ratio will depend on fitness level of participants

# High Intensity Interval Training (HIIT)

- Characterized by work intervals performed at the same intensity throughout the entire training session.
- The fast glycolytic system



# High Volume Interval Training (HVIT)

- Inappropriate recoveries = reductions in performance and decreased caloric burn.
- Continuing effort must be fueled by the

# Variable Intensity Interval Training (VIIT)

- The perfect solution to general population group fitness classes?
- Focus remains on work completed within glycolytic system however emphasis is on

Never confuse maximal performance with maximal effort.

One represents performance – **intensity**.

The sub-maximal, sustained work represents something else – **volume**.