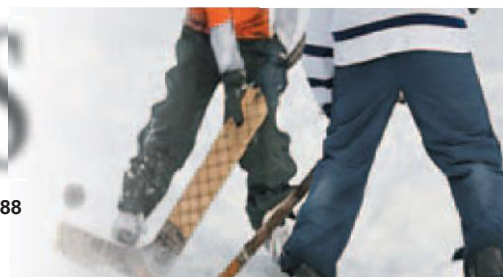


# SPORTS

Sean Rooney, editor

403.528.5688

sports@medicinehatnews.com



Friday, June 17, 2016 — THE MEDICINE HAT NEWS

## High intensity has benefits



**Ed Stiles**  
Training Matters



*Ed Stiles BPE, Certified Exercise Physiologist is a member of the Alberta Sport Development Centre's Performance Enhancement Team and operates Peak Performance Fitness Services. He can be reached via email at [asdc@mhc.ab.ca](mailto:asdc@mhc.ab.ca) or at [peakperform@hotmail.com](mailto:peakperform@hotmail.com).*

High Intensity Interval Training is all the rage in the fitness world these days. Folks of all ages are pulling up their compression socks, amping up the intensity, cranking up their iPods and sweating bombs.

The benefits of HIIT training are numerous. You can achieve similar benefits to typical steady state training but with far less time invested. There's increased post-exercise afterburn (up to 37 hours), improved lung capacity and VO2 max, better carryover to high-intensity sport, among others.

As the name implies, short bursts of high intensity intervals are interspersed with rest phases allowing the muscles, cardio and energy supply systems to regenerate toward more high intensity intervals. The rest phase can be complete rest (full wheeze fest) or moderate intensity cardio to flush the waste products.

There have been literally hundreds of varieties of intervals used in training over the years where work-to-rest ratios are manipulated to match sport demands.

The most popular lately is Tabata training. Izumi Tabata was a Japanese researcher who did testing on one specific interval protocol with the Japanese speed skating team. They did one day a week of steady state and then four days of HIIT. Twenty seconds of extremely intense effort (170 per cent of VO2max) followed by 10 seconds of rest repeated for a total of four minutes. The study was groundbreaking for the fitness world as the participants saw similar results to a control group who cycled for an hour five times a week. Eighty minutes or five hours; seems like a no-brainer, until you are bent over feeling nauseous and wondering who turned down the oxygen as this is one extremely intense four-minute session.

Please realize that Tabata training only refers to the 10 rest 20 work protocol because they are not the only ones finding great results with HIIT.

Canadian professor Martin Gibala at McMaster University decided that 170 per cent VO2 max was unreasonable for people not on a national team and so set up a protocol a little more user friendly. He saw similar benefits to typical five times a week steady state cardio with three sessions of 60 seconds work versus 75 seconds rest.

Other researchers have shown great results as well; Zuniga looked at 30 seconds to 30 seconds, Timmons did two minutes easy with 20-second bursts, Kravitz mixes all manner of ratios together.

What does all this research mean? Well simply, HIIT is an efficient way to train and see results. Whether one method is better than another is a question of whether it matches the current level of functioning of the target group.

Many of my clients and students over the years enjoy a Tabata on the bike then a strength circuit of 60 seconds work to 30 rest and then top it off with 30 seconds to 30 seconds with the Heiden workout.

My considered opinion is that it is far less important to worry about the ratios or their duration and more important to focus on the intensity of the work phase and whether HIIT is an appropriate option for the people involved. If you have a healthy foundation, like to push yourself hard, and maybe suffer a little then HIIT is a great option. Just keep in mind that not everyday can or should be a high intensity tushy kicker. More than three to four HIIT's a week sends the body into a catabolic state where regeneration can't match breakdown, and more training is counter-productive.

