

# **10 THINGS YOU SHOULD KNOW ABOUT INTERVAL TRAINING**

**Keith Colby C.S.C.S, 2008**

## **1. What is interval training?**

Interval training is simply alternating periods of intense work with periods of rest. Interval training allows you to exercise at a higher intensity without getting tired. By alternating periods of high intensity with periods of rest you are able to do much more work in the same period of time.

## **2. Intervals work better for fat loss compared to traditional cardio.**

Have you ever seen an overweight or fat sprinter? A Sprinter runs about 10 seconds. His or her body is lean with an aesthetically pleasing appearance. Those engaged in interval sports do more work in less time at higher intensities and develop better bodies than those who engage in steady state aerobics.

## **3. Intervals create less muscular damage.**

The harder your muscles have to work the more calories you will burn which is why interval training is superior to steady state aerobics - (walking, running, biking, or any other form of aerobic exercise at a steady consistent pace for a set time period). One of the most effective results of interval training is that it creates maximum metabolic disturbance with minimal muscular disruption. This means you burn more calories from doing hard work in a shorter period of time with less muscular damage compared to resistance training. Resulting in less next day and day after soreness.

## **4. Intervals take less time.**

Effective interval training can take as little as 4 minutes. The average will take about 20 minutes. Considering most people don't have a lot of time to spend daily, this is great news equating to more time to spend with your spouse, friends, family or whatever it is you like to do. A study published in the Journal of Physiology by Gibala, Sept., 2006, vol. 575, issue 3, compared 20 minutes of interval training with 90 -120 minutes in the theoretical heart rate zone. The study found the same improvement in oxygen utilization. Meaning that you would get the same benefit in 1 hour/week versus 4.5 to 6 hours/week if you workout 3 days a week.

## **5. Intervals develop aerobic capacity and help make daily life activities easier than aerobic training.**

The fastest way to increase your endurance and raise your VO2 max (the standard measure of fitness) is through interval training. Training your body to work at a higher

intensity level will start to make what was once challenging at a traditional aerobic level feel easier. Our daily lives are interval in nature. We rarely go at a steady state pace over the course of a day. Hard work with intervals makes life and exercise easier. On the other hand traditional cardio may make exercise and life in general more difficult. There is also an increased chance of injury through muscle overuse. As in daily life doing what feels uncomfortable at times may make life seem easier, while staying in your comfort zone may actually make life more difficult over time. Sometimes exercise and training is no different.

## **6. Intervals burn more calories than steady state aerobics.**

We all know that to lose weight and fat we have to burn more calories than we consume. We also know that aerobic exercise burns calories during the actual aerobic workout. However the key factor is actually how many calories we burn after the workout is complete. Interval training burns more calories both while you are doing it and for hours afterwards. This is what is known as excess post-exercise oxygen consumption (EPOC). The recovery of the metabolic rate back to pre-exercise levels can require several minutes for light exercise (aerobic training), several hours for heavy exercise (anaerobic cardio training), and up to 12 to 24 hours or even longer for prolonged exhaustive exercise (interval training or circuit weight training).

## **7. Intervals are both aerobic and anaerobic.**

If your heart rate is maintained above the theoretical 60% during your session, then the entire session is both aerobic and anaerobic (even though you may not be moving at all). This means that when you are recovering and resting from your anaerobic interval you are now performing aerobic training allowing your heart rate to recover back down to 60%. Those who perform interval training correctly are usually doing more work while resting between intervals compared to those who use traditional cardio as their choice of exercise. No wonder their results are better. Another important note here is at least 70% of the population does not fit the 220-age heart rate formula, which by the way was not arrived at scientifically. It actually was devised by two people traveling somewhere in an airplane. Two more accurate formulas may be the Miller formula or the Karvonen Heart Rate Reserve Method  $(\text{max hr} - \text{resting hr}) \times \% + \text{RHR} = \text{THR}$ .

## **8. How do I progress to interval training?**

Start out safely by using a great tool like the Schwinn Airdyne bike, which will minimize the orthopedic joint stresses that are imposed from running, walking and chasing after a belt on a treadmill. Beginners should buy a basic polar heart rate monitor and begin with a 3-4 week intro phase of traditional steady state cardio, monitoring your heart rate, and figuring out where it begins to challenge your breathing threshold in-terms of heart rate. After that begin with simple 30-second intervals and use either the Miller or Karvonen formulas and recover at 60%.

## **9. Different Exercise Modes.**

**Bike (Schwinn Airdyne):**

[http://www.performbetter.com/detail.aspx\\_Q\\_ID\\_E\\_4937\\_A\\_rnd\\_E\\_24](http://www.performbetter.com/detail.aspx_Q_ID_E_4937_A_rnd_E_24)

**Slide Board:**

[http://www.performbetter.com/detail.aspx\\_Q\\_ID\\_E\\_4415\\_A\\_rnd\\_E\\_38](http://www.performbetter.com/detail.aspx_Q_ID_E_4415_A_rnd_E_38)

**Elliptical Trainer:**

[http://www.performbetter.com/detail.aspx\\_Q\\_ID\\_E\\_3837\\_A\\_CategoryID\\_E\\_416](http://www.performbetter.com/detail.aspx_Q_ID_E_3837_A_CategoryID_E_416)

**Versa Climber**

**Track / Field**

**Body Weight Exercises**

**Stair Climber**

## **10. Studies:**

Broeder CE, Burrhus KA, Svanevik LS, Wilmore JH. The effects of aerobic fitness on resting metabolic rate. *AM J. Clin Nutr.* 1992 Apr; 55(4): 795-801

With subjects training 12 -16 hours week this study showed no effect of aerobic training on resting metabolic rate.

Tremblay A, Simoneau JA, Bouchard C. Impact of exercise intensity on body fatness and skeletal muscle metabolism. *Metabolism* 1994 Jul; 43(7): 814-8

This study compared 20 weeks of steady state endurance training and 15 weeks of interval training. The interval-training group showed a 9 times greater loss in subcutaneous fat than the endurance group.

## **About The Author**

Keith Colby is a Certified Strength and Conditioning Specialist (NSCA), was voted one of Americas Top 100 Personal Trainers by Men's Journal Magazine, and has been in the fitness industry since 1996. Keith and his company help people from all walks of life to look, move, feel and perform better without the use of dangerous drugs, ineffective gimmicks, fads, and quick fixes. He is the founder and owner of Colby Conditioning located in Boston Massachusetts. His website is [www.colbyconditioning.com](http://www.colbyconditioning.com)

