



## 3 Different Ways to Improve Fitness & Burn Fat with Cardio

Long, slow distance (LSD) workouts, tempo workouts and interval workouts all are effective cardiovascular workouts that improve fitness and burn fat, just for different reasons. So take a look below for information on what defines each category, why they are effective and how to put your workout together.

**Long, slow distance (LSD)** workouts are exactly what the name implies – long, continuous aerobic workouts covering a great distance at a low intensity. During LSD workouts the body becomes better fat burning machines by enhancing fat oxidation and elevating metabolic rates for hours after the workout, allowing calories to continue to burn even after the completion of the workout. One study showed that walking at 70 percent of max Vo<sub>2</sub> for 60 minutes resulted in a higher post workout metabolic rate than walking at the same intensity for 20 or 40 minutes. Furthermore, the '94 study in Medicine and Science in sport and Exercise showed that the longer the participants walked, the longer it took for metabolic rates to return to pre-exercise levels (up to 7 ½ hours after a 60 minute session of exercise). These type of workouts can be performed on almost any cardio equipment in the gym or via like exercise modes outside with the highest caloric burn occurring in the modes with large weight bearing requirements. Regardless of the mode, the workout should be done at approximately 65-70% of max heart rate for at least an hour and progressing as training increases.

**Tempo workouts** are workouts that are targeted to be performed at intensity close to one's lactate threshold. The intensity of lactate threshold is the point where the body begins transitioning from aerobically generated energy to a mix of aerobic and anaerobic generated energy and is normally at about 75% for unfit individuals and in the upwards of 80-85% for more fit individuals. When the body begins transitioning past the lactate threshold, the body also transitions from mostly fat to more or only carbohydrates. Research has shown that workouts, like tempo workouts, which are performed at or just below the lactate threshold elicit some of the highest fat oxidation rates because of the increased intensity. Tempo workouts are a great way to increase the intensity without increasing the fatigue significantly because they are still aerobic. During a tempo workout, the workout should feel hard but not completely uncomfortable and should be completed at this higher intensity for 15-20 minutes or shorter segments with short recovery periods.

**Interval workouts** allow the whole workout to be performed at a higher intensity by breaking the workout up into smaller segments. If done in one continuous segment, the body wouldn't be able to



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What are you trying to do for fitness?

sustain as high of intensity, thus high and low (rest) intensity segments are alternated based on time or distance. Like LSD workouts, research has shown that interval workouts also leave the metabolic rate elevated after exercise – but do not require as much time to complete. Intervals should be attempted to be completed at 90% or higher for 20 seconds to one minute with 2-3 times as much recovery for short workouts or 2-4 minutes with about equal recovery periods for longer workouts – then repeat each work/recovery session 5-10 times.

**So now** give one of the aforementioned a try – and to get the most bang for your buck, try doing one of each type of workout once during your week! Of course, remember to always properly warm-up, cool down, and stretch in addition to being physically fit and medically cleared to exercise.

1. Karp, J. Top 3 Cardio Workouts. PT on the Net. 05 May 2008.
2. Quinn, T.J., Vroman, N.B., and Kertzer, R. (1994). Postexercise oxygen consumption in trained females: Effect of exercise duration. *Medicine and Science in Sports and Exercise*. 26(7):908-913.
3. Treuth, M.S., Hunter, G.R., and Williams, M. (1996). Effects of exercise intensity on 24-h energy expenditure and substrate oxidation. *Medicine and Science in Sports and Exercise*. 28(9):1138-1143.