

## **Fat or Carbohydrate Oxidation during the Alpha Cardio Focus T25 Workout: A Pilot Study**

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The Shaun T Alpha Cardio Focus T25 workout is a 25 minute high-intensity aerobic workout. It is promoted as a calorie-burning, sweat-drenching workout designed to burn fat. However, the standard exercise prescription for metabolizing fat is moderate intensity for a prolonged period of time (>30 minutes). **PURPOSE:** The aim of this pilot study was to examine fuel oxidation and the lactate threshold in fit individuals during the alpha cardio Focus T25 workout. **METHODS:** Six active college-aged students performed the Focus T25 workout every other day for one week and data was collected on the third day. Subjects followed the Focus T25 DVD and performed moves like jumping jacks, pivot lunges, heel taps, lateral sprints, mountain climbers and control squats. Subjects moved for the full 25 minutes. Heart rate (HR) and non-protein Respiratory Exchange Ratio (npRQ) were measured every 30 seconds using a k4B2 mobile metabolic analyzer. Blood lactate was analyzed at 3 minute intervals via a finger prick and Lactate Plus analyzer while ratings of perceived exertion (RPE, 1-10 scale) were recorded every 5 minutes. **RESULTS:** Heart rate increased dramatically within the first few minutes of the workout and came close to reaching maximum levels via the standard maximum heart rate equation. Highest HR averaged  $182 \pm 14$  bpm. The average npRQ during the workout was  $0.95 \pm 0.14$ , indicating primarily carbohydrate oxidation. Blood lactate levels averaged  $5.2 \pm 0.65$  mmol/L just 4 minutes into the workout and peaked at  $10 \pm 1.44$  mmol/L 12 minutes in. Subjects reported the highest RPE ( $6 \pm 2$ ) during the last ten minutes of the workout. **CONCLUSION:** This preliminary study indicates that individuals who perform the Alpha Cardio Focus T25 workout will 1) exercise at a high-intensity, 2) primarily burn carbohydrates, and 3) possibly feel the sensation of fatigue rather early into the workout. Supported by the Summer Undergraduate Research Institute, West Chester University