

### 35. SWACSM Abstract

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## Maintained Elevated Systolic Blood Pressures in African Americans and Hispanic Individuals Following Maximum Oxygen Consumption Test When Compared to Caucasians: A Pilot Study

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#### ABSTRACT

**PURPOSE:** There is robust evidence presenting higher incidences of hypertension experienced by the African American (AA) population when compared with matched cohorts. Exercise has been shown to reduce the prevalence of hypertension, however, the cardiovascular recovery of exercise is associated with mortality. The purpose of the present study was to investigate the cardiovascular recovery between AAs, Hispanics (HSPs), and Caucasians (CAs). **METHODS:**  $VO_{2max}$  was measured by indirect calorimetry. Body composition was measured by air displacement plethysmography (BODPOD). Brachial blood pressures were captured by automated cuff before exercise, immediately after exercise, and every 2 minutes following exercise for a total of 15 minutes in a supine position. **RESULTS:** 15 healthy volunteers (n=5 AA, n=5 HSP, n=5 CA) participated in the study. Participants were matched for age and all body composition measures ( $p>0.05$  for all). No statistical effects of time were observed within-groups ( $p>0.05$ ) or between-groups ( $p>0.05$ ) for systolic (SBP) and diastolic (DBP) blood pressures. However, the AA maintained "elevated" SBP throughout the recovery phase. The HSP group maintained "elevated" SBP up to 10 minutes following the cessation of exercise. The CA cohort returned to "healthy" SBP within 2 minutes following  $VO_{2max}$ . **CONCLUSION:** Young AA and HSP individuals may show varying recovery from  $VO_{2max}$  when compared to CAs. These results need to be confirmed by a larger sample.