

## Mid Atlantic Regional Chapter of the American College of Sports Medicine

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Annual Scientific Meeting, November 1<sup>st</sup> – 2<sup>nd</sup>, 2019 Conference Proceedings International Journal of Exercise Science, Volume 9, Issue 8

## Endothelial Function is Preserved in Ultra-Marathon Runners Following a 50 km Race

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Ultramarathon runners may be at a heightened risk for adverse cardiovascular events, especially in the time period immediately following a prolonged bout of endurance exercise. The heightened cardiovascular risk may, in part, be attributed to endothelial dysfunction. **PURPOSE:** To evaluate endothelial function, as measured by % flow-mediated dilation (FMD), before and after completion of a 50 km ultramarathon race. **METHODS:** Baseline diameter of the brachial artery and % FMD of eleven participants (male=8; age= $40 \pm 2$ ) were measured pre-race, 60 minutes post-race and 24 hours post-race completion. A repeated measures ANOVA was used to compare baseline diameters and % FMD among timepoints. **RESULTS:** Pre-race baseline diameter (3.83mm  $\pm$  0.16) and % FMD (6.45%  $\pm$  0.89) were not significantly different at 60 minutes post- (3.89mm  $\pm$  0.16 and 6.75%  $\pm$  1.33) or 24-hours post-race completion (3.92mm  $\pm$  0.18 and 7.46%  $\pm$  0.76). **CONCLUSION:** Data from the current study suggest that no impairment of endothelial function occurs within 24 hours following a 50 km ultra-marathon race. These data suggest that ultramarathon runners may not be at a heightened cardiovascular risk as measured by brachial artery reactivity following a 50 km race.