The Effects of Cocoa Flavanol Supplementation on Endothelial Function and Exercise Performance

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Cocoa flavanols have gained attention for potential beneficial effects on endothelial function and exercise performance, especially in clinical populations. However, few studies have utilized healthy college-aged individuals. **PURPOSE:** To evaluate the use of cocoa flavanols as a supplement to improve endothelial function and exercise performance in healthy individuals. **METHODS:** Twenty-eight college-aged males (N=19) and females (N=9) completed this randomized, double-blind study. Participants took either cocoa flavanols (375 mg) or placebo (0 mg cocoa flavanols) each day for 14 days. Flow-mediated dilation (FMD%), resting heart rate, resting blood pressure, and exercise performance (anaerobic and aerobic) were measured at pre- and post-supplementation. **RESULTS:** There were no significant interactions between groups and time or any main effects for dependent variables. There was no meaningful change $(p = .24)$ in FMD% between pre- and post-supplementation for the treatment ($15.23 \pm 1.57\%$ to $14.16 \pm 1.70\%$) or placebo (16.70 ± 1.79 to $11.06 \pm 1.94\%$) group, respectively. **CONCLUSION**: Cocoa flavanol supplementation does not appear to significantly improve endothelial function or exercise performance in healthy, young college students. Future studies could use either higher doses or different subject populations in order to see if cocoa flavanols might elicit a significant improvement.