

A Comparison of Blood Viscosity, Hematocrit and Blood Pressure between Yoga Practitioners and Sedentary Individuals

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ABSTRACT

Elevations in whole blood viscosity (WBV) and hematocrit (Hct) have been linked with increased risk of cardiovascular disease (CVD) and coexist with elevations in systolic blood pressure (SBP). Endurance training has been demonstrated to lower WBV and Hct; however, evidence supporting the efficacy of yoga on these measures is sparse. **METHODS:** A cross-sectional study was conducted examining WBV, Hct and blood pressure among yoga practitioners with a minimum of 3 years of consistent practice and sedentary, healthy adults. Blood samples were collected from a total of 42 participants: 23 sedentary adults and 19 regular yoga practitioners. Brachial arterial blood pressure (BP) was measured and the averages of 3 measures were reported. **RESULTS:** Yoga practitioners had significantly lower WBV at 45 s⁻¹ ($p < 0.01$), 90 s⁻¹ ($p < 0.01$), 220 s⁻¹ ($p < 0.05$), and 450 s⁻¹ ($p < 0.05$) than sedentary participants. No significant group differences in Hct ($p = 0.38$) were found. A tendency toward lower systolic BP ($p = 0.06$) was observed in the yoga practitioner group; however, no significant group differences in BP were exhibited. **CONCLUSION:** A consistent yoga practice was associated with lower WBV and a trend of lower SBP, health indicators associated with CVD risk. These findings support a regular yoga practice as a valid form of exercise for improving rheological indicators of cardiovascular health.