

Impact of meditation on resting and ambulatory blood pressure and heart rate in youth.

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OBJECTIVE: The purpose of this study was to evaluate the impact of a meditation program on resting and ambulatory blood pressure and heart rate in youth. **METHODS:** Data from 73 middle school students (age 12.3 +/- 0.6 years) randomly assigned by classroom to either meditation (N = 34) or health education control (N = 39) groups were analyzed. The meditation groups engaged in 10-minute sessions at school and at home after school each day for 3 months. Resting (seated) systolic blood pressure, diastolic blood pressure, and heart rate measurements were obtained pretest and posttest on three consecutive school days using Dinamap 1846SX monitors. Ambulatory systolic blood pressure, ambulatory diastolic blood pressure, and ambulatory heart rate were recorded over 24-hour periods at pretest and posttest every 20 minutes during self-reported normal waking hours and every 30 minutes during self-reported normal sleep hours using Spacelabs 90207 monitors. **RESULTS:** Significant ($p < .05$) differences in average change from pretest to posttest were found between the meditation and health education control groups for resting systolic blood pressure (-2.7 vs. 1.1 mm Hg), daytime ambulatory systolic blood pressure after school (-2.0 vs. 3.6 mm Hg), daytime ambulatory diastolic blood pressure after school (0.1 vs. 4.3 mm Hg), and daytime ambulatory heart rate after school (-5.3 vs. 0.3 bpm). **CONCLUSION: These findings demonstrate the potential beneficial impact of meditation on blood pressure and heart rate in the natural environment in healthy normotensive youth.**

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