

[Am J Respir Crit Care Med.](#) 1998 Apr;157(4 Pt 1):1098-103.



[Links](#)

Blood pressure in children with obstructive sleep apnea.

[Marcus CL](#), [Greene MG](#), [Carroll JL](#).

The Eudowood Division of Pediatric Respiratory Sciences, Johns Hopkins University, Baltimore, Maryland, USA. cmarcus@welchlink.welch.jhu.edu

Hypertension is a common complication of obstructive sleep apnea in adults. However, hypertension has not been studied systematically in children with the obstructive sleep apnea syndrome (OSAS). We therefore measured blood pressure (BP) during polysomnography in 41 children with OSAS, compared to 26 children with primary snoring (PS). Systolic and diastolic BP were measured every 15 min via an appropriately sized arm cuff, using an automated system. This was tolerated by the children without inducing arousals from sleep. Children with OSAS had a significantly higher diastolic BP than those with PS ($p < 0.001$ for sleep and $p < 0.005$ for wakefulness). There was no significant difference in systolic BP between the two groups. Multiple linear regression showed that blood pressure could be predicted by apnea index, body mass index, and age. Blood pressure during sleep was lower than during wakefulness ($p < 0.001$ for diastole and $p < 0.01$ for systole), but did not differ significantly between rapid eye movement (REM) and non-REM sleep. We conclude that childhood OSAS is associated with systemic diastolic hypertension.

PMID: 9563725 [PubMed - indexed for MEDLINE]