

Poor Quality Sleep Driving Up Blood Pressure in Teens

A new study suggests that Poor-quality sleep may drive up blood-pressure levels in otherwise-healthy teens. The study was published online in August 18, 2008, in *Circulation*, and it is the first of its kind to show a link between inadequate, low-quality sleep and prehypertension or hypertension in adolescents without sleep apnea.

The authors point out that while the link between insufficient sleep and hypertension in adults is well documented, few studies have looked at this in young people and those that have focused on children with sleep apnea, which is also a well-established risk factor for hypertension and cardiovascular disease (CVD). While young people aren't typically on cardiologists' radar, cardiologists need to be aware of sleep disturbance as a possible risk factor at any age. Sleep quality and quantity may be fundamental health characteristics that impact homeostatic processes that affect risk factors for CVD.

The study looked specifically at 238 adolescents, aged 13 to 16, and measured sleeping patterns both at home, and in a sleep lab, using overnight polysomnography, and then taking nine blood-pressure measurements over two days.

They found that adolescents with low sleep efficiency (meaning they have trouble falling asleep or wake early) and those who aren't getting enough sleep (6.5 hours or less) had increased odds of developing prehypertension (defined as \geq 90th percentile for age, sex, and height). Even after adjustment for other possible contributing factors, adolescents with poor sleeping patterns had systolic blood-pressure levels that were on average 4 mm Hg higher than other children ($p < 0.01$).