

Sleep duration may play important role in childhood obesity

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Less sleep can increase a child's risk of being overweight or obese, according to a study by researchers at the Johns Hopkins Bloomberg School of Public Health. Their analysis of epidemiological studies found that with each additional hour of sleep, the risk of a child being overweight or obese dropped by 9 percent. The results are published in the February 2008 edition *Obesity*, the journal of The Obesity Society.

“Our analysis of the data shows a clear association between sleep duration and the risk for overweight or obesity in children. The risk declined with more sleep,” said Youfa Wang, MD, PhD, senior author of the study and associate professor with the Bloomberg School's Center for Human Nutrition.

“Desirable sleep behavior may be an important low cost means for preventing childhood obesity and should be considered in future intervention studies. Our findings may also have important implications in societies where children do not have adequate sleep due to the pressure for academic excellence and where the prevalence of obesity is rising, such as in many East Asian countries.”

“The influence of sleep quality on obesity risk is another important area where future research is needed,” added Xiaoli Chen, MD, PhD, the study's lead author and a former postdoctoral fellow at the Bloomberg School.

For the study, Wang, Chen and colleague May A. Beydoun, also a

postdoctoral fellow at the Bloomberg School, reviewed 17 published studies on sleep duration and childhood obesity and they analyzed 11 of them in their meta-analysis.

The recommended amount of daily sleep varied between studies analyzed and with children's age. It is recommended that children under age 5 should sleep for 11 hours or more per day, children age 5 to 10 should sleep for 10 hours or more per day, and children over age 10 should sleep at least 9 hours per day.

The results of the analysis showed that children with the shortest sleep duration had a 92 percent higher risk of being overweight or obese compared to children with longer sleep duration. For children under age 5, shortest sleep duration meant less than 9 hours of sleep per day. For children ages 5 to 10 it meant less than 8 hours of sleep per day and less than 7 hours of sleep per day for children over 10. The association between increased sleep and reduced obesity risk was strongly associated with boys, but not in girls.

Source: Johns Hopkins University

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