

# REM sleep associated with overweight in children and adolescents

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Short sleep time is associated with overweight in children and adolescents, a core aspect of which may be attributed to reduced REM sleep, according to a research abstract that will be presented on Thursday at SLEEP 2008, the 22nd Annual Meeting of the Associated Professional Sleep Societies.

The study, authored by Xianchen Liu, MD, PhD, of the University of Pittsburgh, focused on 335 participants between seven and 17 years of age, who underwent three consecutive nights of standard polysomnography, or an overnight sleep test, and weight and height assessment as part of study on the development of childhood internalizing disorders (depression and anxiety).

According to the results, compared with normal-weight children, overweight children slept about 22 minutes less, had lower sleep efficiency, shorter REM sleep periods, lower REM activity and density, and longer latency to the first REM period.

After adjustment for demographics, pubertal status, ethnicity, and psychiatric diagnosis, one hour less of total sleep increased the odds of overweight by about two-fold, one hour less of REM sleep increased the odds by about three-fold, REM density and activity below the median increased the odds by two- and three-fold, respectively.

“Given the fact that the prevalence of overweight among children and adolescents continues to increase, and chronic sleep insufficiency becomes more and more prevalent in the modern society, family and school-based sleep interventions which aim to enhance sleep hygiene and increase sleep duration may have important public health implications for the prevention and intervention of obesity and type-two diabetes in children and adolescents,” said Dr. Liu.

Studies have linked sleep deprivation among

children and adolescents to increased incidence of obesity and cardiovascular disease, and can also result in behavioral problems, lead to poor academic performance and affect relationships with their peers.

It is recommended that adolescents get nine hours of nightly sleep and school-aged children between 10-11 hours.

Source: American Academy of Sleep Medicine

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