

New screening tool to diagnose common sleep problem in children

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Clinical investigators at the Children's Hospital of Eastern Ontario (CHEO) have developed a new screening tool to help diagnose obstructive sleep apnea in children. Their findings are published in *Pediatric Pulmonology*.

Evidence suggests that adults with a large neck circumference are more likely to develop [obstructive sleep apnea](#) (OSA), especially males. As neck circumference varies by age and sex, there have been no reference ranges to diagnose pediatric OSA up until now. The new evidence-based diagnostic tool includes reference ranges—a new pediatric growth curve—to measure and track neck circumference for boys and girls between the ages of 6 and 17.

"The gold standard test (for OSA) is still a sleep study and we would not replace that, but because the wait is so long, we needed something quick and reliable to help bump kids up the priority list or to better understand who is at the highest risk for OSA," said Dr. Sherri Katz, principal investigator at the CHEO Research Institute and assistant professor in the Faculty of Medicine at the University of Ottawa. "If left untreated, OSA sets kids up for cardiovascular disease, diabetes and other comorbid conditions down the line."

The research team discovered for children, a neck circumference measuring greater than the 95th percentile for age and sex is associated with increased risk of OSA. When examined by sex, the association was significant in males aged 12 or older, but not in females. The research

team also looked at Body Mass Index (BMI), but did not find that it stands alone as a significant predictor of OSA in this group.

"In older males, as in adults, neck size is a predictor of OSA. This suggests that in adults, it is not just overall obesity, but [body fat distribution](#) centrally—in the trunk and neck—that predicts the risk of OSA," said Katz.

Provided by Children's Hospital of Eastern Ontario Research Institute

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