

Assessing the Prevalence of Sleep Apnea among Collegiate Football Players

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Obstructive sleep apnea is a clinical disorder characterized by loud snoring, apneic episodes and chronic sleep disruption. Collegiate football players exhibit several risk factors for OSA, including: large neck circumference and high body mass index, although the prevalence of OSA in this cohort is unknown.

PURPOSE: To estimate the prevalence of OSA in collegiate football players. **METHODS:** The STOP-BANG questionnaire was administered at random to members of the Towson University football team and used to stratify the players into high and low risk for OSA. Those who completed the questionnaire were then evaluated for OSA during pre-season camp using a single-channel (finger pulse-oximetry) photoplethysmography (PPG)-based device. OSA was defined as an apnea-hypopnea index (AHI) ≥ 5 .

RESULTS: Of 56 players who underwent overnight PPG monitoring, valid results were available for 51. Forty eight percent of the players were high risk [high risk; neck size: 44.6 ± 2.2 cm, BMI: 33.0 ± 5.4 vs. low risk; neck size: 41.5 ± 2.9 cm, BMI: 27.8 ± 3.6 , both p 's < 0.01). An AHI ≥ 5 was found in 2 (8.3%, 95% confidence interval (CI) 1.0 – 20.0%) high risk and 2 (7.7, 95% CI 1.0-18.4%) low risk players.

Offensive lineman (2), a linebacker and a tight end accounted for the positive cases. **CONCLUSION:** Based on our sample, we estimate the prevalence of OSA among collegiate football players to be 8%, regardless of risk stratification. Given the strong link between OSA and cardiovascular disease, these data underscore the importance of screening and subsequent treatment of OSA in this highly conditioned, yet potentially vulnerable group of athletes.