

## **Effects of bariatric surgery on sleep apnea**

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**Background:** Obesity is one of the risk factors for obstructive sleep apnea (OSA), increasing its risk by tenfold. Continuous Positive Airway Pressure (CPAP) is a proven method of treating obstructive sleep apnea, but compliance is reported to be less than 50%. Although patients achieve important weight loss after bariatric surgery, literature is conflicting regarding improvement of obstructive sleep apnea symptoms.

**Purpose:** This study aims to assess the effects of bariatric surgery on sleep apnea symptoms, apnea/hypopnea index (AHI) scores, and use of CPAP treatment.

**Methodology:** Retrospective chart review of patients who underwent bariatric surgery at our institution between January 2013 and March 2014. We included all patients who had completed a preoperative overnight polysomnography, had diagnoses of OSA, and were on CPAP prior to surgery. We excluded patients that did not complete a postoperative polysomnography.

**Results:** We observed a decrease in body weight (Kg.) of 19.58%, and a decrease in BMI of 21.18% in accordance with their post bariatric state. In relation to their sleep apnea: there was a decrease in AHI of 59.13%, a decrease in their Arousal Index by 28.39% which lead to a decrease in the requirement of CPAP use by 50%. The average interval between surgery and follow-up polysomnography was 26 months.

**Conclusions:** Bariatric surgery significantly improved OSA scores and decreased CPAP use in relation to decreases in BMI and body weight. We consider that OSA follow up should be done routinely after bariatric surgery for patients previously on CPAP.