

# Exploring pre-surgery and post-surgery substance use in relation to metabolic and psychiatric outcomes after bariatric surgery: a systematic review

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**Introduction:** Bariatric surgery (BS) produces superior weight loss compared to non-surgical interventions. However, studies suggest bariatric patients have an increased risk of developing new onset substance use disorder (SUD) or suffer negative outcomes after surgery. As such, many bariatric programs consider alcohol/ illicit drug misuse a contraindication to BS. The purpose of this systematic review was to investigate weight loss outcomes, psychological outcomes and other morbidity/mortality in BS patients with a history of substance use/SUD. **Methods:** Studies were identified by searching Ovid Medline(R), Embase, and PsychInfo. We included all study types investigating humans of any age/sex who had undergone any BS procedure with data regarding substance use before and/or after surgery. Outcome measures included metabolic outcomes and substance use after surgery in patients reporting substance use before surgery. **Results:** 45 studies were included in the review. Studies reporting weight loss after BS did not demonstrate an association between substance use and negative weight loss outcomes. Several studies reported a significant portion of participants having new onset or increased substance use after BS. Factors associated with new onset or increased substance use/SUD after BS included the type of surgery, a history of SUD, a family history of SUD, coping skills/life stressors, age and male sex. **Conclusion:** Substance use history does not appear to influence weight loss after BS, however it may contribute to increased substance use after BS. Clinicians should ensure valid screening tools when assessing BS candidates for substance use history and ensure long term follow up care post-operatively.