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Original article

# Insurance-mandated preoperative diet and outcomes after bariatric surgery

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## Abstract

**Background:** Despite a lack of demonstrated patient benefit, many insurance providers mandate a physician-supervised diet before financial coverage for bariatric surgery.

**Objectives:** To compare weight loss between patients with versus without insurance mandating a preoperative diet.

**Setting:** University hospital, United States.

**Methods:** Retrospective study of all patients who underwent laparoscopic Roux-en-Y gastric bypass or sleeve gastrectomy over a 5-year period, stratified based on whether an insurance-mandated physician-supervised diet was required. Weight loss outcomes at 6, 12, and 24 months postoperation were compared. Linear mixed-models and backward-stepwise selection were used.  $P < 0.05$  was considered significant.

**Results:** Of 284 patients, 225 (79%) were required and 59 (21%) were not required to complete a preoperative diet by their insurance provider. Patients without the requirement had a shorter time to operation from initial consultation ( $P = .04$ ), were older ( $P < .01$ ), and were more likely to have government-sponsored insurance ( $P < .01$ ). There was no difference in preoperative weight or body mass index or co-morbidities. In unadjusted models, percent excess weight loss was superior in the group without an insurance-mandated diet at 12 ( $P = .050$ ) and 24 ( $P = .045$ ) months. In adjusted analyses, this group also had greater percent excess weight loss at 6 ( $P < .001$ ), 12 ( $P < .001$ ), and 24 ( $P < .001$ ) months; percent total weight loss at 24 months ( $P = .004$ ); and change in body mass index at 6 ( $P = .032$ ) and 24 ( $P = .007$ ) months. There was no difference in length of stay or complication rates.

**Conclusions:** Insurance-mandated preoperative diets delay treatment and may lead to inferior weight loss. (*Surg Obes Relat Dis* 2018;14:631–639.) Published by Elsevier Inc. on behalf of American Society for Metabolic and Bariatric Surgery.

**Keywords:** Insurance; Diet; Bariatric surgery; Weight loss; Outcomes

Obesity has reached epidemic status over the past several decades, and studies predict the problem to continue growing in the foreseeable future [1,2]. Obesity threatens health in terms of increased risk of diabetes, cardiovascular disease, and certain cancers, and it has been shown to

increase all-cause mortality [2,3]. It also has tremendous economic impact and has been estimated to account for >9% of all medical expenditures [2]. In fact, each point increase in body mass index (BMI) is associated with an increase in medical and pharmaceutical costs.

Bariatric surgery is the best available intervention to achieve and maintain weight loss long term. Additionally, surgery has been shown to improve or effect remission of co-morbidities, including diabetes, hypertension, obstructive sleep apnea, and dyslipidemia. Despite its significant benefits, bariatric surgery is not easily accessible for all

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