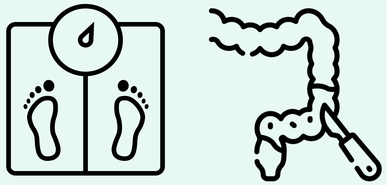
# Patients with Class III Obesity are at Elevated Risk of Postoperative Morbidity Following Surgery for Left-Sided Diverticular Disease: A Retrospective Population Level Study

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## Background

- Obesity is a well-established risk factor for the development of diverticular disease.
- Patients with obesity may be at higher risk of postoperative complications.



**Aim:** To evaluate the impact of BMI on postoperative outcomes following operative intervention for left-sided diverticular disease.

## Methods

- **Healthcare Cost and Utilization Project NIS** 2015-2019

**Study Participants:**

- Adult patients (≥ 18 years of age)
- Primary admission diagnosis of diverticulitis
- Underwent left-sided resection

**Strata:**

- **Class 0:** BMI < 30 kg/m$^2$
- **Class I obesity:** BMI 30-34.9 kg/m$^2$
- **Class II obesity:** BMI 35-39.9 kg/m$^2$
- **Class III obesity:** BMI > 40 kg/m$^2$

**Outcomes:** In-hospital postoperative morbidity, infection, gastrointestinal complications, genitourinary complications.

Multivariable regression models were fit.

## Results

**Overall:** n = 33,029

- **Class 0:** n = 27,212
- **Class I obesity:** n = 2,209
- **Class II obesity:** n = 1,710
- **Class III obesity:** n = 1,898

Relative to Class 0, Class III obesity was associated with ⇧ odds of the following in-hospital postoperative outcomes:

**Morbidity: 72.7%** (95% CI 1.54-1.94)

**Infection: 26.9%** (95%CI 0.98-1.65)

**Gastrointestinal complications: 54.6%** (95%CI 1.35-1.77)

**Genitourinary complications: 70.9%** (95%CI 1.48-1.97)

## Conclusions

- Patients with **Class III obesity** undergoing operative intervention for colonic diverticular disease are at ***increased*** risk of short-term postoperative morbidity..
- Identifying these high-risk patients preoperatively can allow for more accurate prognostication and better preoperative optimization.