

## The role of routine preoperative upper endoscopy in bariatric surgery: a systematic review and meta-analysis

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**Background:** The necessity of routine preoperative esophagogastroduodenoscopy (EGD) before bariatric surgery is controversial. European guidelines recommend routine EGD while North American guidelines recommend a selective approach.

**Objectives:** Perform a systematic review and meta-analysis to determine the proportion and scope of clinical findings discovered at preoperative EGD.

**Methods:** A search of Medline, Embase and Cochrane databases included MeSH terms ‘bariatric surgery’, ‘endoscopy’, and ‘preoperative’. Inclusion criteria were any case series, cohort study, or clinical trial describing results of preoperative EGD for any bariatric surgery. Exclusion criteria were studies with less than 10 patients, patients under 18 years old, or revisional operations. Changes in surgical and medical management, and proportions of pathologic findings were extracted and combined in a meta-analysis using random effects model.

**Results:** Initial search identified 532 citations. Forty-eight were included after full text review. Included studies comprised 12 261 patients with mean (SD) age of 40.5 (1.3) years and body mass index of 46.3 (1.5) kg/m<sup>2</sup>. The majority of patients (77.1%) were female. The proportion of EGDs resulting in a change in surgical management was 7.8%. After removing benign findings with controversial impact on management (hiatal hernia, gastritis, peptic ulcer), this was found to be 0.4%. Changes in medical management were seen in 27.5%, but after removing H. pylori eradication this was found to be 2.5%.

**Conclusions:** Preoperative EGD in average-risk, asymptomatic bariatric surgery patients should be considered optional, as the proportion of EGDs that resulted in important changes in management was low.