AGA Clinical Practice Guidelines on Intragastric Balloons in the Management of Obesity

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Definition

Intragastric balloons (IGB) are endoscopically placed silicone balloons filled with saline or air mixture, left in the gastric lumen for 6-12 months to reduce apparent gastric capacity and facilitate weight loss. Only 1.1% of eligible patients with obesity receive bariatric surgery, and <5% patients are aware of endoscopic options.

Appropriate Candidates

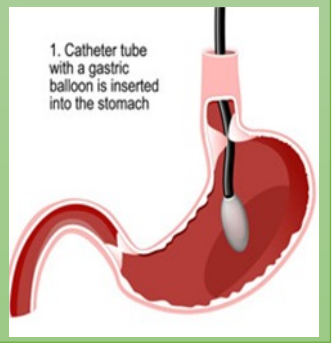
-BMI 30-40
-Participation of balloon deployment at least 6 months, implementation of concomitant lifestyle changes

Absolute Contraindications

-Prior history of esophageal and stomach surgery
-Coagulopathy
-Upper GI Bleeding Lesions
-Child-Pugh B/C or decompensated cirrhosis
-Pregnancy
-Hiatal hernia >5cm

Relative Contraindications

-Hiatal hernia 3cm-5cm
-IBD: Crohn's, UC
-Chronic NSAID Use
-History of Esophagitis



Efficacy

-Average weight loss of 9-15 pounds over course of insertion within 12 months with as much as 20% by 9 months
-4.1cm average waistline reduction
-Improvement in lab markers: A1c, fasting blood glucose, liver function tests
-Higher remission rates of type 2 diabetes, hypertension, hyperlipidemia

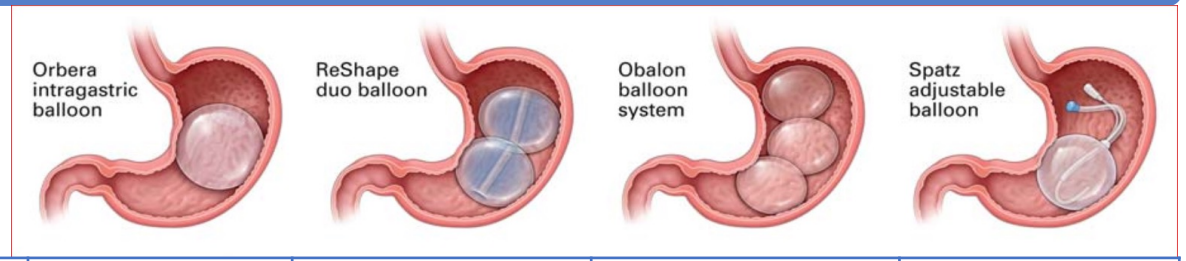
Adverse Events

-Gastric Perforation: 0.1%
-Balloon Migration: 1.4%
-Mortality: 0.08%

Side Effects

-Nausea/Vomiting
-Abdominal pain
-Diarrhea

FDA Approved Devices



Balloon	1 Balloon	2 Balloons	3 Balloons	1 Balloon
Volume	400-700ml Saline	450ml saline x2	250ml Nitrogen Gas x3	300-900ml saline Adjustable
Duration	6-12 month	6 month	6 month	12 month
Advantages	**Longest in market and studied**	**High gastric volume occupancy**	**No endoscopy for insertion**	**Volume capacity adjustment**

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	Recommendation	Strength of Recommendation	Quality of Evidence
Implementation:	Among patients failing conventional weight loss intervention and pursuing IGB, lifestyle modifications should be used in conjunction. *Fluid-filled balloons may be associated with more weight loss, however less favorable safety profile than gas-filled. Shared decision making is warranted.*	Conditional	Moderate
	Among patient pursuing IGB, moderate-high intensity lifestyle modification should be used in conjunction. *High intensity lifestyle interventions are multi-faceted including counseling sessions with trained interventionists, low calorie diet 1200-1500 kcal/day, and 200-300 min/week of aerobic exercise.* *Patients with ongoing lifestyle modifications post-balloon removal continue to have ongoing weight loss.*	Strong	Moderate
Tissue Injury Prevention: 	PPI prophylaxis recommended among patient having IGB inserted. *Lowest dose and frequency suggested: Once a day dosing*	Strong	Moderate
Side Effect Prevention: 	Scheduled anti-emetic regimen for 2 weeks post IGB placement is recommended. *Choice of agent per clinical practice, evidence used compared ondansetron and midazolam, with better performance using both.*	Conditional	Low
Nutrition: 	Pre-IGB laboratory screening of nutritional deficiencies is not recommended. Daily supplementation with 1-2 adult dose multivitamins is recommended. *Low quality evidence for presence of thiamine or folate deficiency with 0-29% prevalence.* *Low quality evidence of thiamine or folate deficiency being prevented with supplementation.*	Conditional	Low Very Low

Abbreviations: IGB: intragastric balloon; IBD: inflammatory bowel disease; UC: ulcerative colitis; NSAID: non-steroidal anti-inflammatory drugs; PPI: proton pump inhibitor