[Acta Med Port.](http://www.ncbi.nlm.nih.gov/pubmed/22521004" \o "Acta médica portuguesa.) 2011 Jul-Aug;24(4):489-98. Epub 2011 Dec 12.

**[Intra-gastric ballon in the treatment of morbid obesity].**

[Article in Portuguese]

[Carvalho MR](http://www.ncbi.nlm.nih.gov/pubmed?term=Carvalho%20MR%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Jorge Z](http://www.ncbi.nlm.nih.gov/pubmed?term=Jorge%20Z%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Nobre E](http://www.ncbi.nlm.nih.gov/pubmed?term=Nobre%20E%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Dias T](http://www.ncbi.nlm.nih.gov/pubmed?term=Dias%20T%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Cortez-Pinto H](http://www.ncbi.nlm.nih.gov/pubmed?term=Cortez-Pinto%20H%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Machado MV](http://www.ncbi.nlm.nih.gov/pubmed?term=Machado%20MV%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Camolas J](http://www.ncbi.nlm.nih.gov/pubmed?term=Camolas%20J%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Neves S](http://www.ncbi.nlm.nih.gov/pubmed?term=Neves%20S%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Guerra A](http://www.ncbi.nlm.nih.gov/pubmed?term=Guerra%20A%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Vieira J](http://www.ncbi.nlm.nih.gov/pubmed?term=Vieira%20J%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Fagundes MJ](http://www.ncbi.nlm.nih.gov/pubmed?term=Fagundes%20MJ%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Brito MJ](http://www.ncbi.nlm.nih.gov/pubmed?term=Brito%20MJ%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [Almeida Nunes P](http://www.ncbi.nlm.nih.gov/pubmed?term=Almeida%20Nunes%20P%5BAuthor%5D&cauthor=true&cauthor_uid=22521004), [do Carmo I](http://www.ncbi.nlm.nih.gov/pubmed?term=do%20Carmo%20I%5BAuthor%5D&cauthor=true&cauthor_uid=22521004).

**Source**

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**Abstract**

**BACKGROUND:**

Intragastric balloon is a temporary treatment for weight loss with proven safety and efficacy when associated with lifestyle intervention. It is indicated in the super--obese who are candidates for bariatric surgery to lose weight and to reduce their high surgical risk. Our aim was to retrospectively evaluate the results of the patients in whom this device was inserted during a three-year period from the beginning of this practice in the Hospital de Santa Maria.

**METHODS:**

Data from the medical records in what concerns bioanthropometric characteristics in the beginning and following balloon removal were reviewed and submitted to descriptive analysis.

**RESULTS:**

Fifty-seven patients underwent intragastric balloon placement, of whom 46 female and 11 male, with median age 44,2 ± 11,77 years. Median body mass index (BMI) 51,6 ± 9,45 kg/m(2). Five patients were lost to follow-up. The balloon was inserted for a median time of 206 ± 62,62 days, during which there was a median weight loss of 17,2 ± 9,46 kg, a reduction of 6,7 ± 3,73 kg/m(2) in BMI and a mean excessive weight loss of 26,7 ± 16,99%. There were 5 patients in whom serious complications occurred, one of which died. One half of the patients went on to bariatric surgery. The median time between balloon removal and surgery was 241,6 ± 243,66 days in which there was a median weight variation of + 3,5 ± 11,69 kg. The remaining patients: 15 dropped out further treatment, 5 patients are under medical therapy and have no invasive procedure scheduled, 4 patients are to be submitted to another balloon insertion and 2 patients were submitted to the insertion of a second balloon during the time this article refers to.

**CONCLUSIONS:**

Our findings are similar to some previously described. Intragastric balloon is a temporary and efficacious option in the treatment of morbid obesity. However, it is very important to strictly select the patients and to have a good coordination with the Surgical department so that results can be optimized.

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22521004

[PubMed - indexed for MEDLINE]

**Free full text**

[Intern Med.](http://www.ncbi.nlm.nih.gov/pubmed/22041341) 2011;50(21):2449-55. Epub 2011 Nov 1.

# Time-course of changes of visceral fat area, liver volume and liver fat area during intragastricballoon therapy in Japanese super-obese patients.

[Sekino Y](http://www.ncbi.nlm.nih.gov/pubmed?term=Sekino%20Y%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Imajo K](http://www.ncbi.nlm.nih.gov/pubmed?term=Imajo%20K%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Sakai E](http://www.ncbi.nlm.nih.gov/pubmed?term=Sakai%20E%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Uchiyama T](http://www.ncbi.nlm.nih.gov/pubmed?term=Uchiyama%20T%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Iida H](http://www.ncbi.nlm.nih.gov/pubmed?term=Iida%20H%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Endo H](http://www.ncbi.nlm.nih.gov/pubmed?term=Endo%20H%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Hosono K](http://www.ncbi.nlm.nih.gov/pubmed?term=Hosono%20K%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Sakamoto Y](http://www.ncbi.nlm.nih.gov/pubmed?term=Sakamoto%20Y%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Fujita K](http://www.ncbi.nlm.nih.gov/pubmed?term=Fujita%20K%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Yoneda M](http://www.ncbi.nlm.nih.gov/pubmed?term=Yoneda%20M%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Takahashi H](http://www.ncbi.nlm.nih.gov/pubmed?term=Takahashi%20H%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Koide T](http://www.ncbi.nlm.nih.gov/pubmed?term=Koide%20T%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Tokoro C](http://www.ncbi.nlm.nih.gov/pubmed?term=Tokoro%20C%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Abe Y](http://www.ncbi.nlm.nih.gov/pubmed?term=Abe%20Y%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Saito S](http://www.ncbi.nlm.nih.gov/pubmed?term=Saito%20S%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Maeda S](http://www.ncbi.nlm.nih.gov/pubmed?term=Maeda%20S%5BAuthor%5D&cauthor=true&cauthor_uid=22041341),[Gotoh E](http://www.ncbi.nlm.nih.gov/pubmed?term=Gotoh%20E%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Takihata M](http://www.ncbi.nlm.nih.gov/pubmed?term=Takihata%20M%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Terauchi Y](http://www.ncbi.nlm.nih.gov/pubmed?term=Terauchi%20Y%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Nakajima A](http://www.ncbi.nlm.nih.gov/pubmed?term=Nakajima%20A%5BAuthor%5D&cauthor=true&cauthor_uid=22041341), [Inamori M](http://www.ncbi.nlm.nih.gov/pubmed?term=Inamori%20M%5BAuthor%5D&cauthor=true&cauthor_uid=22041341).

### Source

Gastroenterology Division, Yokohama City University School of Medicine, Japan.

### Abstract

#### OBJECTIVE:

The aim of this study was to assess the changes in the clinical parameters during intragastric balloon therapy for Japanese obese patients.

#### METHODS:

Between March 2009 and September 2010, 8 patients underwent intragastric balloon therapy at our hospital. The visceral fat area, liver volume and the liver-spleen ratio were measured by computed tomography. Blood examination and computerized tomography were performed before the balloon placement, and at 1, 3 and 6 months after the balloon placement in all of the patients.

#### RESULTS:

Eight patients (5 males and 3 females, median age, 39 years; median BMI, 44.0 kg/m(2)) underwent intragastric balloon therapy without severe complications. The median weight loss was 8.6 kg, mean BMI loss was 2.8 kg/m(2), and the percent excess weight loss was 14.8% at 6 months after the balloon placement. The body weight and liver volume decreased significantly during the first month, and the results were maintained at the same levels until after the second month. The liver-spleen ratio also improved significantly during the first month, but worsened again during the last 3 months. The visceral fat area showed no significant differences during the treatment as well as no differences in liver enzymes, glucose and lipid metabolism.

#### CONCLUSION:

Intragastric balloon therapy achieved a moderate effect in weight and liver volume reduction during the early months of the treatment. Intragastric balloon therapy may have a role as a minimally invasive method for pretreatment before laparoscopic surgery.

PMID:

22041341

[PubMed - indexed for MEDLINE]

**Free full text**

[Surgeon.](http://www.ncbi.nlm.nih.gov/pubmed/18697363) 2008 Aug;6(4):210-2.

# Intra-gastric balloon therapy and weight reduction.

[Mohamed ZK](http://www.ncbi.nlm.nih.gov/pubmed?term=Mohamed%20ZK%5BAuthor%5D&cauthor=true&cauthor_uid=18697363), [Kalbassi MR](http://www.ncbi.nlm.nih.gov/pubmed?term=Kalbassi%20MR%5BAuthor%5D&cauthor=true&cauthor_uid=18697363), [Boyle M](http://www.ncbi.nlm.nih.gov/pubmed?term=Boyle%20M%5BAuthor%5D&cauthor=true&cauthor_uid=18697363), [Small PK](http://www.ncbi.nlm.nih.gov/pubmed?term=Small%20PK%5BAuthor%5D&cauthor=true&cauthor_uid=18697363).

### Source

Sunderland Royal Hospital, Kayll Road, Sunderland, UK.

### Abstract

#### BACKGROUND:

Intra-gastric (TBT) can achieve pre-operative weight loss in obese patients, and may make surgery safer and easier. We report our experience in weight reduction and outcome in morbidly obese patients.

#### METHODS:

Data were prospectively collected in 50 consecutive morbidly obese patients undergoing intra-gastric balloon therapy. All balloons were inserted and removed by one consultant operator and injected with 500-600 mls of methylene blue-stained saline. Patients were admitted after ballooninsertion to control nausea and reflux symptoms. Analysis was performed on post-insertion data collated from the hospital obesity database and patient note review.

#### RESULTS:

The majority of patients (70%) were female. Prior to IBT, mean patient weight was 149.9 +/- 36.8 kg (male 184.7 +/- 38.1 kg, female 135 +/- 26.5 kg). At six months follow-up, mean weight of patients reduced to 133.5 +/- 34.3kg (male 166.8 +/- 33.3 kg, female 119.3 +/- 25.9 kg). The overall percentage of excess weight loss was 22% (male 17%, female 25%, p=NS). Mean patient body mass index (BMI) at balloon insertion was 52.8 (+/-8.2) kg/m2 (male 56.8, female 51.0), mean patient BMI reduced to 47 (+/-8.1) (males 51.4, females 45.1) at six months. Average BMI loss was 5.8 (male 5.4, female 6.0).

#### CONCLUSION:

IBT is an effective method of weight reduction in morbid obesity with an average excess weight loss of 22% in this series. The benefit of pre-operative weight loss in this patient group is likely to be significant, but has yet to be measured.

### Comment in

* [Re: A complication of intra-gastric balloon therapy.](http://www.ncbi.nlm.nih.gov/pubmed/19848067) [Surgeon. 2009]

PMID:

18697363

[PubMed - indexed for MEDLINE]

[Harefuah.](http://www.ncbi.nlm.nih.gov/pubmed/17183956) 2006 Nov;145(11):826-30, 861.

# [Intra gastric balloon for morbid obesity].

[Article in Hebrew]

[Timna N](http://www.ncbi.nlm.nih.gov/pubmed?term=Timna%20N%5BAuthor%5D&cauthor=true&cauthor_uid=17183956), [Pomerantz I](http://www.ncbi.nlm.nih.gov/pubmed?term=Pomerantz%20I%5BAuthor%5D&cauthor=true&cauthor_uid=17183956), [Konikoff F](http://www.ncbi.nlm.nih.gov/pubmed?term=Konikoff%20F%5BAuthor%5D&cauthor=true&cauthor_uid=17183956).

### Source

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### Abstract

Obesity has become a severe health problem in the Western world, and is rapidly becoming the most common disease of the 21st century. Morbid obesity is resistant to treatment and is accompanied by considerable morbidity. Some morbidly obese patients do not manage to reduce their weight by diet alone, yet are unsuitable or unwilling to undergo bariatric surgery. Lately, a new intragastric bioenteric balloonR (BIB) was developed to treat these patients. This article summarizes the current knowledge and experience with this balloon, and its advantages and disadvantages. There are very few placebo controlled studies regarding the BIB, and the results are controversial. One study shows the advantage of using the ballooncompared with diet alone while another study showed no advantage of the balloon compared with a strict diet regimen. Uncontrolled studies show thatballoon treatment combined with diet and physical activity had favorable results achieving both weight reduction and reduction in obesity associated morbidity. Those results were maintained a year after the balloon was removed. Mild and common side effects included vomiting and heartburn, but the balloon also caused severe complications including bowel obstruction, perforation and even death. The total rate of severe complications is estimated to be about 3%. We conclude that the intragastric balloon may be an appropriate addition to the treatment of morbid obesity, but only if combined with a proper diet, physical activity and psychological support. Patients should be carefully selected and monitored to avoid complications.

PMID:

17183956

[PubMed - indexed for MEDLINE]

[Obes Surg.](http://www.ncbi.nlm.nih.gov/pubmed/16989695) 2006 Sep;16(9):1135-7.

# Is bariatric surgery necessary after intragastric balloon treatment?

[Angrisani L](http://www.ncbi.nlm.nih.gov/pubmed?term=Angrisani%20L%5BAuthor%5D&cauthor=true&cauthor_uid=16989695), [Lorenzo M](http://www.ncbi.nlm.nih.gov/pubmed?term=Lorenzo%20M%5BAuthor%5D&cauthor=true&cauthor_uid=16989695), [Borrelli V](http://www.ncbi.nlm.nih.gov/pubmed?term=Borrelli%20V%5BAuthor%5D&cauthor=true&cauthor_uid=16989695), [Giuffré M](http://www.ncbi.nlm.nih.gov/pubmed?term=Giuffr%C3%A9%20M%5BAuthor%5D&cauthor=true&cauthor_uid=16989695), [Fonderico C](http://www.ncbi.nlm.nih.gov/pubmed?term=Fonderico%20C%5BAuthor%5D&cauthor=true&cauthor_uid=16989695), [Capece G](http://www.ncbi.nlm.nih.gov/pubmed?term=Capece%20G%5BAuthor%5D&cauthor=true&cauthor_uid=16989695).

### Source

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### Abstract

#### BACKGROUND:

The use of the Bio-Enterics intra-gastric balloon (BIB) has been shown to be a safe and effective procedure for the temporary treatment of morbid obesity. We conducted a retrospective comparative analysis of the weight loss in patients that after BIB removal underwent bariatric surgery and those who did not wish surgery.

#### METHODS:

From January 2000 to March 2004, 182 BIBs were positioned in 175 patients (104 F / 71 M; mean age 37.1+/-11.6 years, range 16-67; mean BMI 54.4 +/- 8.1 kg/m(2), range 39.8-79.5; mean %EW 160.8+/-32.9% range 89-264). Patients were excluded from this study who had emergency BIB removal for balloon rupture (n=2, 1.1%) and for psychological intolerance (n=7, 7.8%). All patients were scheduled for a bariatric operation, before BIB positioning. After BIB removal, a number of patients now declined surgery. Consequently, patients were allocated into 2 groups: Group A in whom BIB removal was followed by bariatric surgery (Lap-Band, laparoscopic gastric bypass, duodenal switch) (n=86); Group B patients who after BIB removal refused any surgical procedure (n=82). Both groups were followed for a minimum of 12 months. Results were reported as mean BMI and %EWL +/- SD. Statistical analysis was done by Student t-test or Fisher's exact test, with P<0.05 considered significant.

#### RESULTS:

Mean BMI and mean %EWL in the 166 patients at time of removal were 47.3 +/- 8.1 kg/m(2) and 32.1+/-16.6%, respectively. At the same time, mean BMI was 47.6+/-6.9 and 48.1+/-6.5 kg/m(2) in group A and B (P=NS). At 12 months follow-up (100%), mean BMI was 35.1 kg/m(2) in Group A (BIB + surgery) and 51.7 kg/m(2) in Group B (BIB alone) (P<0.001).

#### CONCLUSIONS:

After BIB removal, half (49.4%) of the patients scheduled for surgery refused a bariatric operation. These patients returned to their mean initial weight at 12 months follow-up. Therefore, bariatric surgery after BIB removal is highly recommended.

PMID:

16989695

[PubMed - indexed for MEDLINE]

[Minerva Med.](http://www.ncbi.nlm.nih.gov/pubmed/16565699) 2006 Feb;97(1):51-64.

# [Benefit from bio-enteric Intra-gastric balloon (BIB) to modify lifestyle and eating habits in severely obese patients eligible for bariatric surgery].

[Article in Italian]

[Zago S](http://www.ncbi.nlm.nih.gov/pubmed?term=Zago%20S%5BAuthor%5D&cauthor=true&cauthor_uid=16565699), [Kornmuller AM](http://www.ncbi.nlm.nih.gov/pubmed?term=Kornmuller%20AM%5BAuthor%5D&cauthor=true&cauthor_uid=16565699), [Agagliati D](http://www.ncbi.nlm.nih.gov/pubmed?term=Agagliati%20D%5BAuthor%5D&cauthor=true&cauthor_uid=16565699), [Saber B](http://www.ncbi.nlm.nih.gov/pubmed?term=Saber%20B%5BAuthor%5D&cauthor=true&cauthor_uid=16565699), [Ferrari D](http://www.ncbi.nlm.nih.gov/pubmed?term=Ferrari%20D%5BAuthor%5D&cauthor=true&cauthor_uid=16565699), [Maffeis P](http://www.ncbi.nlm.nih.gov/pubmed?term=Maffeis%20P%5BAuthor%5D&cauthor=true&cauthor_uid=16565699), [Labate M](http://www.ncbi.nlm.nih.gov/pubmed?term=Labate%20M%5BAuthor%5D&cauthor=true&cauthor_uid=16565699), [Bauducco E](http://www.ncbi.nlm.nih.gov/pubmed?term=Bauducco%20E%5BAuthor%5D&cauthor=true&cauthor_uid=16565699), [Manghisi L](http://www.ncbi.nlm.nih.gov/pubmed?term=Manghisi%20L%5BAuthor%5D&cauthor=true&cauthor_uid=16565699), [Martignone L](http://www.ncbi.nlm.nih.gov/pubmed?term=Martignone%20L%5BAuthor%5D&cauthor=true&cauthor_uid=16565699), [Spanu M](http://www.ncbi.nlm.nih.gov/pubmed?term=Spanu%20M%5BAuthor%5D&cauthor=true&cauthor_uid=16565699), [Rovera GM](http://www.ncbi.nlm.nih.gov/pubmed?term=Rovera%20GM%5BAuthor%5D&cauthor=true&cauthor_uid=16565699).

### Source

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### Abstract

#### AIM:

The therapeutic model for severe obesity includes bariatric surgery, representing the safest way to keep weight down and to prevent relapses. The selection of patients for the most suitable type of surgery implies multidisciplinary approach (nutritionist, dietist, clinical psychologist and surgeon). The intragastric balloon may represent a relatively invasive method to help the medical team to select and prepare severely obese patients for restrictive bariatric surgery.

#### METHODS:

In our study we considered 48 severely obese patients: initial weight 111+/-14.8 kg, BMI 43+/-5.02, excess weight 77.47+/-16.14%. These patients have been treated with intragastric balloon (BIB) filled to a volume of 500 cc for 6 months. We considered variations induced by BIB treatment on a number of parameters--clinical, anthropometric, food intake, partition of nourishing elements and psychological and psychometric data.

#### RESULTS:

At the end of the treatment the patients showed significant reductions of excess weight (67.35+/-20.19%), of weight (103.4+/-16.72 kg) and food intake, without modification of the items in the EDI2 test, but with important motivational support for a change in life style between the beginning and the end of the treatment, clearly resulting from the medical, dietist and clinical-psychological follow-up.

#### CONCLUSIONS:

BIB is a relatively invasive means capable of modifying eating habits in the short term; it induces weight loss, may help to reduce the anaesthesiological risk and to foster a change in the patient's behaviour. In our experience treatment with BIB is useful from the educational point of view and can be used to select patients for bariatric surgery only within a multidisciplinary team. Further clinical studies are necessary.

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16565699

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