

Pre-Operative Weight Loss is NOT a Predictor of Weight Loss after Bariatric Surgery



Lígia Freire, Francisco Marrana, **Pedro Soares Moreira**, Tiago Rama, Rita Peixoto, Gil Faria

Conflict of interest disclosure

EACCME criteria for the Accreditation of Live Educational Events:

No potential conflict of interest to report



**Is Pre-operative Weight Loss (PWL)
mandatory as eligibility criteria for
bariatric surgery?**



Introduction

- ❖ **Evidence** from RCT and Retrospective studies does **NOT support** that **PWL**:
 - ✓ improves WL after bariatric surgery
 - ✓ should be a pre-requisite for admission to surgery

Introduction

- ❖ **Evidence** from RCT and Retrospective studies does **NOT support** that **PWL**:
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- ❖ Some studies **SUGGEST** that a **PWL** of 5-10% in the immediate pre-op period **could**:
 - ✓ facilitate surgery
 - ✓ reduce post-op complications of RYGB

Introduction

Reviews in Endocrine and Metabolic Disorders
<https://doi.org/10.1007/s11154-020-09571-8>

Reviews in endocrine and metabolic disorders

Silvia Bettini¹ · Anna Belligoli¹ · Roberto Fabris¹ · Luca Busetto^{1,2}

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Table 1

Results for specific outcomes in three randomised control trials specifically comparing patients who achieved a significant weight loss before surgery with patients who did not [13–15]

	Van Nieuwenhove Y et al.	Kalarchian MA et al.	Coffin B et al.
Sample size	273	143	115
Operating time	NS	/	NS
Intraoperative complications	NS	/	/
Surgeons perceived difficulty	Higher in control group vs. WL	/	/
30-days post-operative complications	Higher in control group vs. WL	NS	/
Post-operative WL	/	NS	NS

NS = not significant difference between weight loss group and control group; WL = weight loss

- Systematic analysis
- Clinical trials and published in the last 10 years in PubMed with the terms “preoperative weight loss and obesity and/or bariatric surgery”
- **CONCLUSION:** “the results are largely inconsistent for all the outcomes considered in the studies and no one single study observed a difference in post-operative weight loss between the intervention and the control arms”.

Introduction

OBES SURG
DOI 10.1007/s11695-013-1165-y



ORIGINAL CONTRIBUTIONS

The Impact of Preoperative Weight Loss Before Laparoscopic Gastric Bypass

Salvatore Giordano • Mikael Victorzon

2014 May;24(5):669-74

- Compared patients who achieved different amount of pre-operative weight loss (< 5%, > 5 to 10% and > 10%)
- **Retrospective**
- n = 548

- **CONCLUSION: “Weight loss >5 % prior to LRYGB may reduce morbidity, and preoperative weight loss >10 % may improve weight loss outcomes at 1-year follow-up”.**

Introduction

Arch Surg. 2011 Nov;146(11):1300-5.

ORIGINAL ARTICLE

Preoperative Very Low-Calorie Diet and Operative Outcome After Laparoscopic Gastric Bypass

A Randomized Multicenter Study

Yves Van Nieuwenhove, MD, PhD; Zilvinas Dambrauskas, MD, PhD; Alvaro Campillo-Soto, MD; Francois van Dielen, MD, PhD; René Wiezer, MD; Ignace Janssen, MD; Michael Kramer, MD; Anders Thorell, MD, PhD

- Evaluation of peri-operative and post-operative outcomes after **14 days** of a very low calorie diet regimen **before** a laparoscopic gastric bypass
- **Randomized multicentric study**
- n = **298**

- **CONCLUSION:** “weight reduction before surgery seems to reduce the perceived difficulty of the procedure, only minor effects on operating time, intraoperative complications, and short term weight loss could be expected. However, the finding of reduced postoperative complication rates suggests that such a regimen should be recommended before bariatric surgery.

Introduction



ELSEVIER

Surgery for Obesity and Related Diseases 7 (2011) 760–768

SURGERY FOR OBESITY
AND RELATED DISEASES

Review article

Effect of preoperative weight loss in bariatric surgical patients: a systematic review

Scott Cassie, M.D.^a, Carlos Menezes, M.D., F.R.C.S.^b,
Daniel W. Birch, M.Sc., M.D., F.R.C.S.C., F.A.C.S.^b, Xinzhe Shi, M.P.H.^b,
Shahzeer Karmali, M.D., F.R.C.S.C., F.A.C.S.^{b,*}

^aDepartment of Surgery, University of Calgary Faculty of Medicine, Calgary, Alberta, Canada

^bCenter for the Advancement of Minimally Invasive Surgery, Royal Alexandra Hospital, Edmonton, Alberta, Canada

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BARIATRIC SURGICAL PRACTICE AND PATIENT CARE
Volume 10, Number 3, 2015
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DOI: 10.1089/bari.2015.0023

Does Preoperative Weight Change Predict Postoperative Weight Loss After Laparoscopic Sleeve Gastrectomy?

William E. Sherman, MD,¹ Aaron E. Lane, MD,² Christopher W. Mangieri, MD,¹
Yong U. Choi, MD,¹ and Byron J. Falser, MD¹

Surg Endosc
DOI 10.1007/s00464-017-5467-3



CrossMark

Predictability of first-year weight loss in laparoscopic sleeve gastrectomy

Allison G. McNickle^{1,3} · Steven R. Bonomo²



Introduction

- ❖ **Guidelines** have agreed that a **period of medical management is necessary** in all patients before bariatric surgery to assess patient's motivation and commitment to follow-up programs, however, **do not provide any clear indication about pre-operative weight loss.**

OBES SURG (2014) 24:42–55
DOI 10.1007/s11695-013-1079-8




OTHER

Interdisciplinary European Guidelines on Metabolic and Bariatric Surgery

M. Fried • V. Yumuk • J. M. Oppert • N. Scopinaro • A. Torres • R. Weiner • Y. Yashkov • G. Frühbeck • on behalf of International Federation for the Surgery of Obesity and Metabolic Disorders—European Chapter (IFSO-EC) and European Association for the Study of Obesity (EASO)

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AACE/TOS/ASMBS Guidelines



Clinical Practice Guidelines for the Perioperative Nutritional, Metabolic, and Nonsurgical Support of the Bariatric Surgery Patient—2013 Update: Cospponsored by American Association of Clinical Endocrinologists, The Obesity Society, and American Society for Metabolic & Bariatric Surgery*

Jeffrey I. Mechanick, M.D.¹, Adrienne Youdim, M.D.², Daniel B. Jones, M.D., M.S.³, W. Timothy Garvey, M.D.⁴, Daniel L. Harley, M.D.⁵, M. Molly McMahon, M.D.⁶, Leslie J. Heinberg, Ph.D.⁶, Robert Kushner, M.D.⁷, Ted D. Adams, Ph.D., M.P.H.⁸, Scott Shikara, M.D.⁹, John B. Dixon, M.B.B.S., Ph.D.¹⁰ and Stacy Brethga

Introduction

❖ The **American Society for Metabolic and Bariatric Surgery** published:

Review > [Surg Obes Relat Dis. 2016 Jun;12\(5\):955-9. doi: 10.1016/j.soard.2016.04.019.](#)

Epub 2016 Apr 22.

ASMBS updated position statement on insurance mandated preoperative weight loss requirements

[Julie J Kim](#)¹, [Ann M Rogers](#)², [Naveen Ballem](#)³, [Bruce Schirmer](#)⁴;

[American Society for Metabolic and Bariatric Surgery Clinical Issues Committee](#)

“insurance-mandated preoperative weight loss is not supported by medical evidence and has not been shown to be effective for preoperative weight loss before bariatric surgery or to provide any benefit for bariatric outcomes”



Objective

To analyze if **pre-operative weight change** is associated with **post-operative weight loss** after bariatric surgery

Methods



- ❑ **Retrospective** study
- ❑ Patients from a Hospital Pedro Hispano (**Portugal**)
- ❑ **Jan/2018** to **Sept/2021**
- ❑ $n = 198$
- ❑ **Statistical analysis:** SPSS v.28 and p-values <0.05 were considered significant

Methods



- ❑ **Retrospective** study
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 - ❑ $n = 198$
 - ❑ **Statistical analysis:** SPSS v.28 and p-values <0.05 were considered significant
-
- ❑ All patients had nutritional evaluation and optimization
 - ❑ Pre-operative weight loss was recommended but not mandatory for surgery

Results

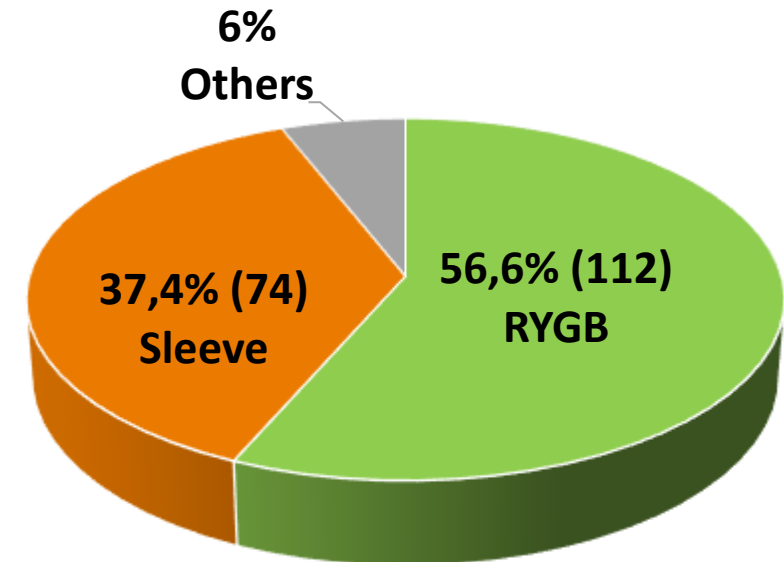
n = 198



> 85%

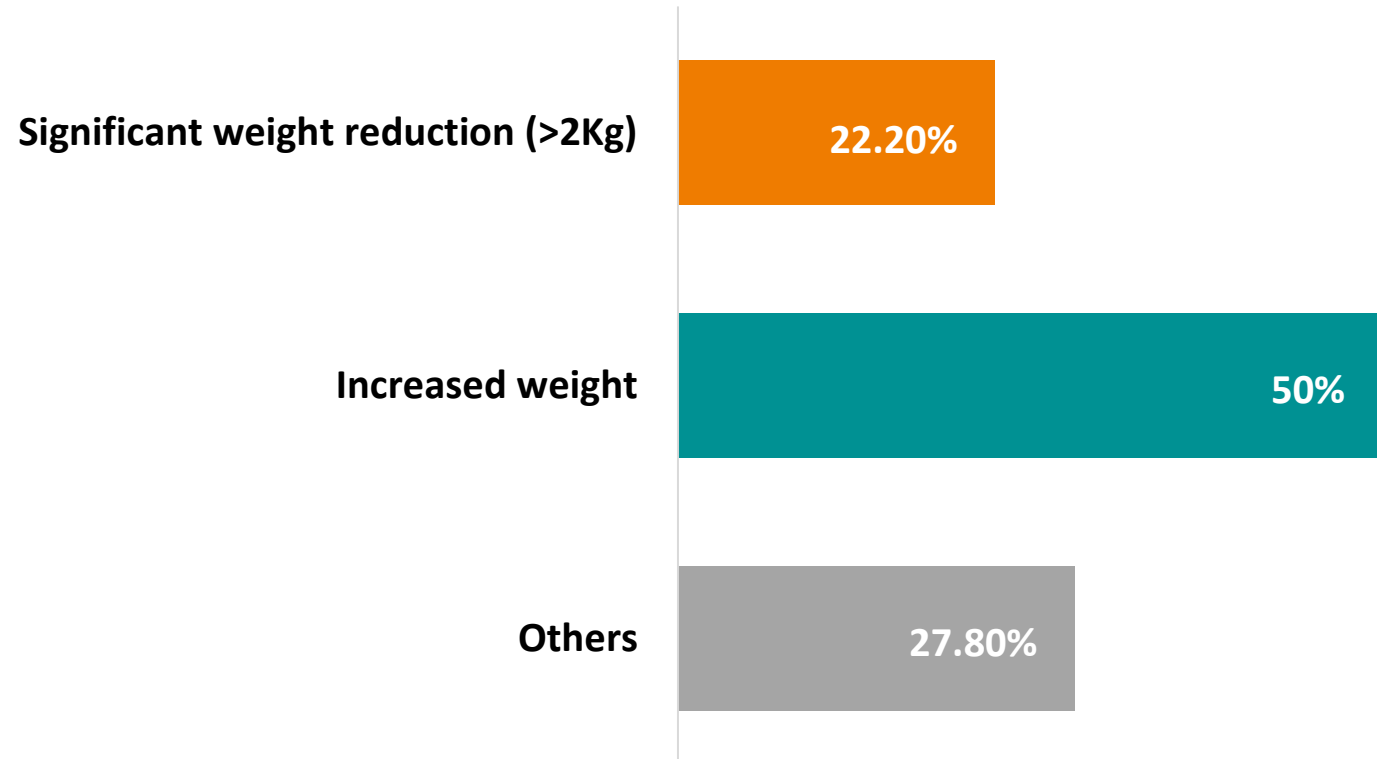
Mean BMI: 43,1 Kg/m²

Bariatric surgery



Results

Pre-operative weight loss



Pre-operative weight loss vs BMI

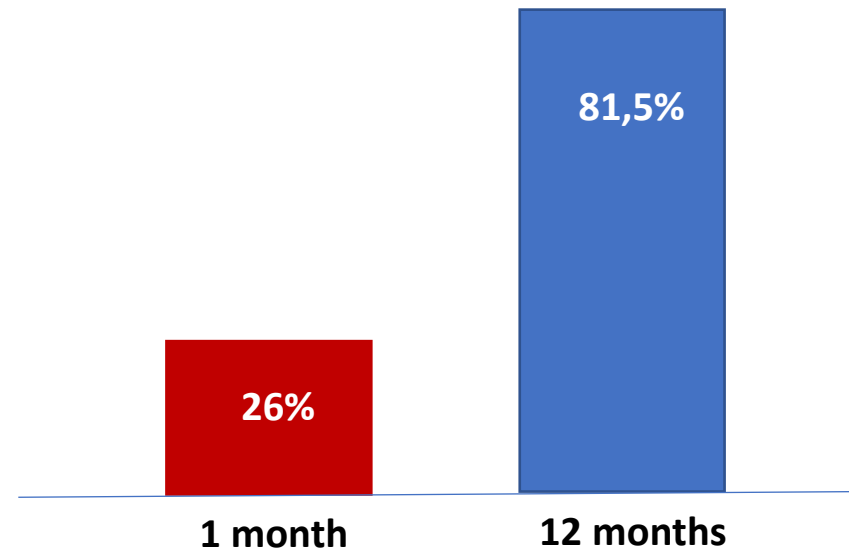
❖ Patient with PWL:

- Had a **significantly lower BMI at the day of surgery**
- Maximum BMI was not different

p=0.03 (40.5 vs 44.5)

Results

% EWL



NAPOLI
2023

Results

PWL vs % EWL 1 and 12 months



Even after adjustment for initial BMI and type of surgery

p=0.9

Discussion

- ❖ Our results support that,
 - ❖ **PWL does not improve WL after bariatric surgery**
 - ❖ **PWL should not be used as an eligibility requisite**

- ❖ Limitations:
 - ❖ n
 - ❖ Retrospective study

- ❖ We need a **large-scale, multicenter, RCT**

Conclusion

Mandatory **PWL** might exclude patients who are the most in need of surgical treatment

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General Surgery Department
Unidade Local de Saúde de Matosinhos
Portugal

