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# CÓMO MEJORAR LOS RESULTADOS A LARGO PLAZO DE BALÓN GÁSTRICO

Dr. Alex Escalona Pérez

Programa de Obesidad y Diabetes
Clínica Universidad de los Andes
Santiago, CHILE

Clínica Universidad de los Andes

# CÓMO MEJORAR LOS RESULTADOS DEL TRATAMIENTO DE LA OBESIDAD A LARGO PLAZO

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The NEW ENGLAND JOURNAL of MEDICINE

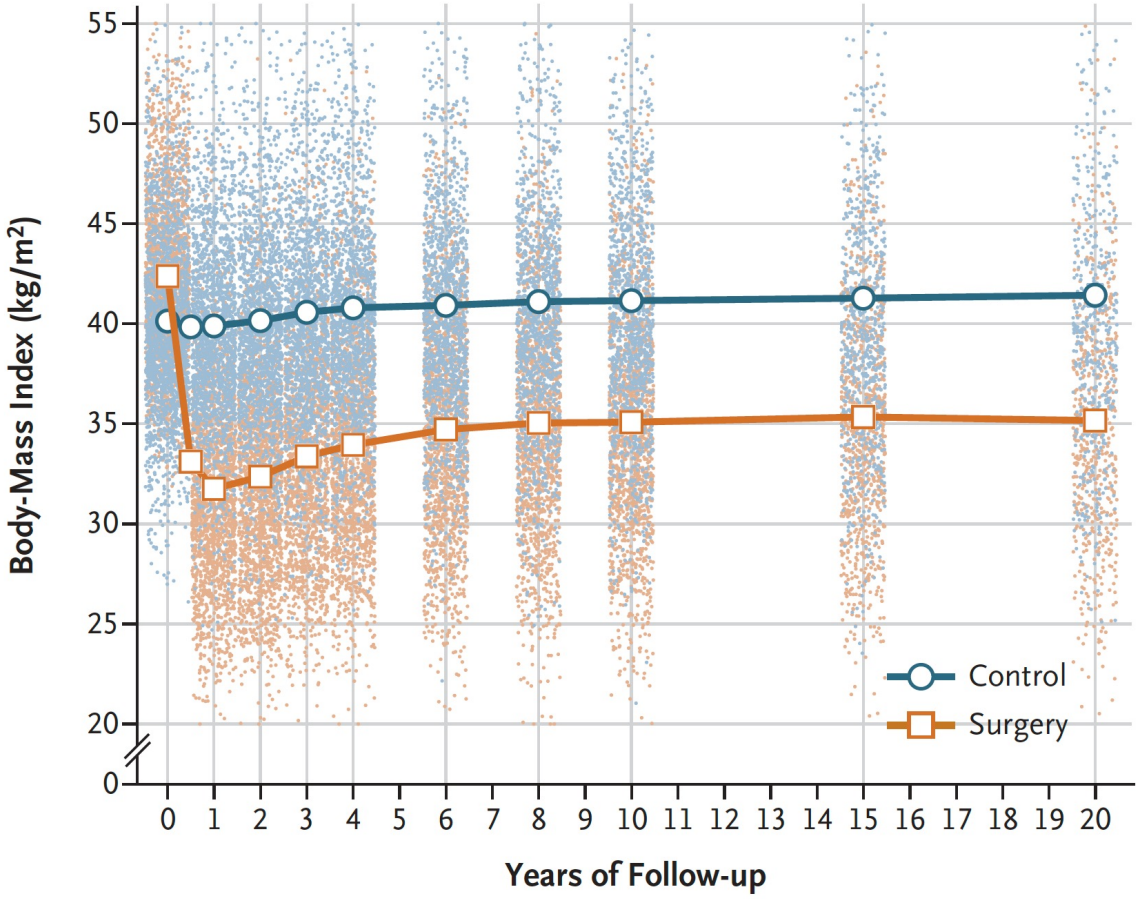
ORIGINAL ARTICLE

# Life Expectancy after Bariatric Surgery in the Swedish Obese Subjects Study

Lena M.S. Carlsson, M.D., Ph.D., Kajsa Sjöholm, Ph.D.,
Peter Jacobson, M.D., Ph.D., Johanna C. Andersson-Assarsson, Ph.D.,
Per-Arne Svensson, Ph.D., Magdalena Taube, Ph.D.,
Björn Carlsson, M.D., Ph.D., and Markku Peltonen, Ph.D.

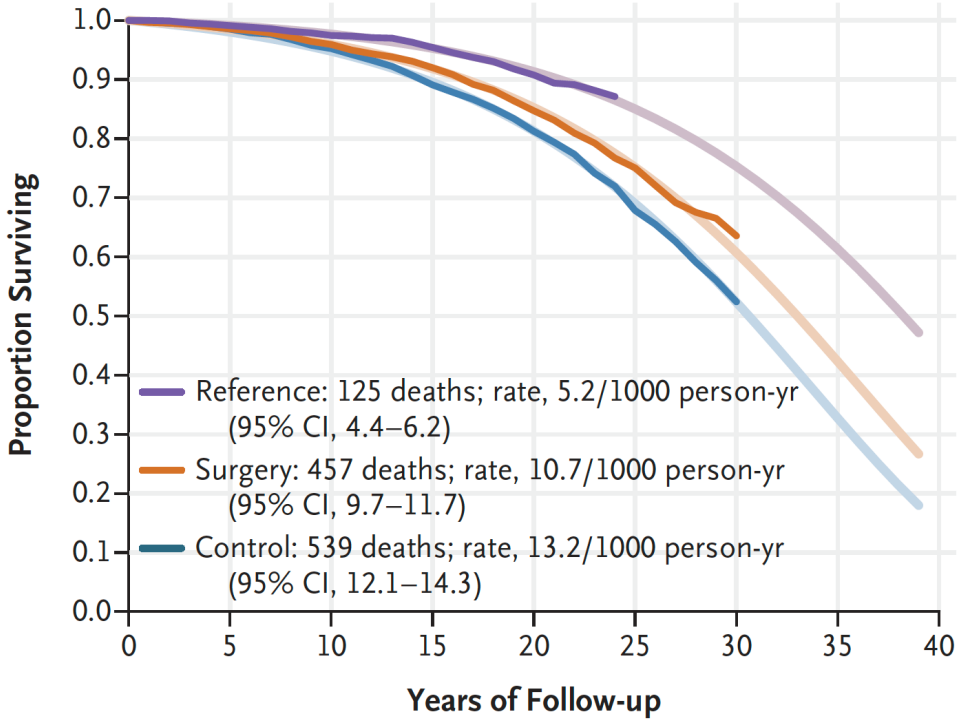
Carlsson L. et al. *N Engl J Med* 2020; 383: 1535-43

# Baja de peso




Carlsson L. et al. *N Engl J Med* 2020; 383: 1535-43

# Sobrevida a largo plazo

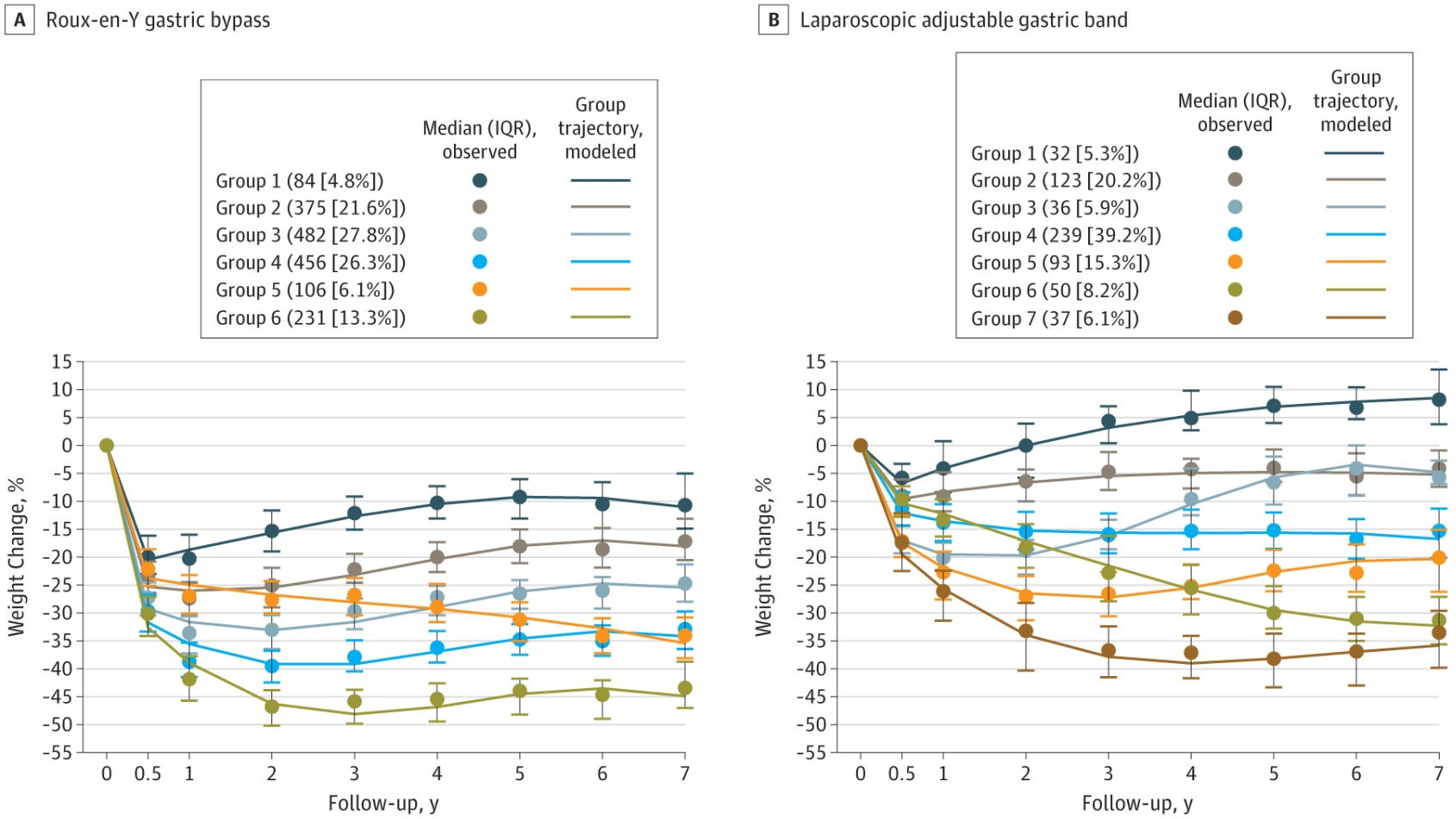



**No. at Risk**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Reference | 1135 | 1125 | 1106 | 1083 | 905 | 0 | 0 |
| Surgery | 2007 | 1915 | 1837 | 1744 | 1390 | 580 | 34 |
| Control | 2040 | 1961 | 1815 | 1589 | 1238 | 488 | 26 |

Carlsson L. et al. *N Engl J Med* 2020; 383: 1535-43

# Trayectoria de peso




Courcoulas A. et al. *JAMA Surg* 2018; 153: 427-434

# ¿Por qué?

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ORIGINAL ARTICLE

## Patient Behaviors and Characteristics Related to Weight Regain After Roux-en-Y Gastric Bypass

*A Multicenter Prospective Cohort Study*

*Wendy C. King, PhD,* Steven H. Belle, PhD,*† Amanda S. Hinerman, MPH,* James E. Mitchell, MD,‡ Kristine J. Steffen, PharmD, PhD,§ and Anita P. Courcoulas, MD, MPH¶*

King W et al. *Ann Surg* 2020; 272; 1044-1052

# Conducta alimentaria y recuperación de peso

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**TABLE 4.** Associations Between Select Postsurgery Behaviors* and Weight Regain, Measured as Percentage of Maximum Weight Lost

| | | Univariate Models† | | Multivariable Model§ | |
|---|---|---|---|---|---|
| | N | Beta (95% CI)† | *P* | Adj. Beta (95% CI)† | *P* |
| Weight control practices | | | | | |
| Weighed oneself at least weekly (Ref = no) | 1130 | −3.61 (−4.68, −2.55) | <0.001 | −4.17 (−5.41, −2.93) | <0.001 |
| Eating behaviors | | | | | |
| Number of times ate per day (Ref = 1–2 times) | 1128 | | 0.77 | | |
| 3 or 4 times | | 0.82 (−1.66, 3.3) | | | |
| 5 or 6 times | | 0.61 (−1.89, 3.1) | | | |
| 7 or more times | | 0.07 (−2.7, 2.84) | | | |
| Number of fast food meals, per 1 time higher per week | 1075 | 0.50 (0.26, 0.75) | <0.001 | 0.45 (0.19, 0.71) | <0.001 |
| Ate when felt full (Ref = no) | 1131 | 3.46 (1.85, 5.06) | <0.001 | 2.89 (1.23, 4.55) | <0.001 |
| Ate continuously throughout day (Ref = no) | 1126 | 2.91 (1.87, 3.95) | <0.001 | 1.61 (0.09, 3.13) | 0.04 |
| Disordered eating (Ref = neither) | 1118 | | <0.001 | | <0.001 |
| Binge eating | | 9.51 (7.11, 11.92) | | 8.02 (5.09, 10.96) | |
| Loss of control eating only | | 3.39 (2.23, 4.55) | | 1.60 (-0.06, 3.27) | |
| Night eating syndrome (Ref = no) | 1127 | 2.44 (0.90, 3.99) | 0.002 | 1.61 (-0.17, 3.40) | 0.08 |
| Substance use | | | | | |
| Smoked cigarettes (Ref = no) | 1133 | −3.53 (−5.58, −1.48) | <0.001 | −2.18 (−4.56, 0.20) | 0.07 |
| Physical activity | | | | | |
| Leisure MVPA, MET h/wk (Ref = Q1 <1.75) | 1133 | | 0.002 | | |
| Q2 (1.75 to <8.3) | | −0.67 (−1.93, 0.58) | | | |
| Q3 (8.3 to <20) | | −1.72 (−3.07, −0.38) | | | |
| Q4 (≥20) | | −2.70 (−4.17, −1.24) | | | |
| Leisure/occupational MVPA, MET-h/wk (Ref = Q1<3.5) | 1133 | | 0.002 | | |
| Q2 (3.5 to <13.5) | | −0.85 (−2.16, 0.45) | | | |
| Q3 (13.5 to <47.5) | | −1.64 (−3.03, −0.25) | | | |
| Q4 (≥47.5) | | −2.78 (−4.24, −1.33) | | | |
| Sedentary time¶, h/d (Ref = Q1 <2) | 1133 | | <0.001 | | 0.005 |
| Q2 (2 to <3) | | 1.41 (0.06, 2.77) | | 0.46 (−1.09, 2.00) | |
| Q3 (3 to <4.5) | | 2.27 (0.89, 3.65) | | 1.58 (−0.005, 3.16) | |
| Q4 (≥4.5) | | 3.79 (2.27, 5.32) | | 2.98 (1.21, 4.75) | |
| Control variables | | NA | | | |
| Maximum weight lost, per 1% of baseline weight | | | | 0.42 (0.31, 0.52) | <0.001 |
| Weight loss medication (Ref = no) | | | | −0.66 (−2.77, 1.45) | 0.54 |

King W et al. *Ann Surg* 2020; 272; 1044-1052

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original article

# Mental health and weight regain after bariatric surgery: associations between weight regain and psychiatric and eating-related comorbidities


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[3] Instituto de Estudos de Saúde Pública, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brasil



This study was presented at The International Conference on Eating Disorders (ICED), hosted by the Academy for Eating Disorders (AED) in 2020. The conference was hosted online due to the COVID-19 pandemic.


## ABSTRACT

Mauro M et al. *Arch Endocrinol Metab* 2024; 68; 1-13

# Recuperación de peso

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**Table 2**. Comparison of lifetime and current prevalence of mental disorders in individuals with and without weight regain after Roux-en-Y gastric bypass

| Mental Disorders (DSM-IV*) | Lifetime Prevalence | | P value | Current Prevalence | | P value |
|---|---|---|---|---|---|---|
| | NWR n=40 n (%) | WR n=50 n (%) | | NWR n=40 n (%) | WR n=50 n (%) | |
| Mood disorders | | | | | | |
| Major depressive disorder | 13 (32.5) | 24 (48) | 0.13 | 9 (22.5) | 17 (34) | 0.23 |
| Dysthymia | 0 | 0 | N/A | 0 | 1 (2) | 0.36 |
| Bipolar disorder | 0 | 1 (2) | 0.36 | 2 (5) | 0 | 0.11 |
| Anxiety disorders | | | | | | |
| Social phobia | 7 (17.5) | 8 (16) | 0.85 | 7 (17.5) | 7 (14) | 0.64 |
| Specific phobia | 10 (25) | 11 (22) | 0.73 | N/A | N/A | N/A |
| Generalized anxiety disorder | 1 (2.5) | 3 (6) | 0.42 | 3 (7.5) | 9 (18) | 0.14 |
| Panic disorder | 2 (5) | 6 (12) | 0.24 | 5 (12.5) | 5 (10) | 0.7 |
| Agoraphobia | 2 (5) | 8 (16) | 0.09 | 5 (12.5) | 9 (18) | 0.47 |
| Post-traumatic stress disorder | 10 (25) | 15 (30) | 0.6 | 7 (17.5) | 6 (12) | 0.46 |
| Obsessive-compulsive disorder | 1 (2.5) | 7 (14) | **0.05** | 2 (5) | 4 (8) | 0.57 |
| Body dysmorphic disorder | 2 (5) | 3 (6) | 0.83 | N/A | N/A | N/A |
| Somatoform disorder | 2 (5) | 4 (8) | 0.57 | N/A | N/A | N/A |
| Substance use disorder | | | | | | |
| Alcohol abuse | 2 (5) | 10 (20) | **0.03** | 4 (10) | 6 (12) | 0.76 |
| Alcohol dependence | 2 (5) | 10 (20) | **0.03** | 2 (5) | 4 (8) | 0.57 |
| Other substance abuse/dependence | 5 (12.5) | 7 (14) | 0.83 | 1 (2.5) | 1 (2) | 0.87 |
| Eating disorders* | | | | | | |
| Anorexia nervosa | 0 | 1 (2) | 0.36 | 0 | 0 | N/A |
| Bulimia nervosa | 0 | 6 (12) | **0.02** | 1 (2.5) | 0 | 0.26 |
| Binge-eating disorder | 14 (35) | 19 (38) | 0.76 | 3 (7.5) | 12 (24) | **0.03** |

Mauro M et al. *Arch Endocrinol Metab* 2024; 68; 1-13

# Recuperación de peso

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**Table 4.** Comparison of general and eating psychopathologies in individuals with and without weight regain after Roux-en-Y gastric bypass

| General and Eating Psychopathology* | Groups | | P value** | Effect size *** |
|---|---|---|---|---|
| | NWR n=40 Median (min-max) | WR n=50 Median (min-max) | | |
| Binge Eating Scale | 6 (0-26) | 11 (0-42) | **0.013** | 0.55 |
| Three-Factor Eating Questionnaire | | | | |
| Restriction Subscale | 13 (4-19) | 9.5 (3-19) | **0.007** | -0.60 |
| Disinhibition Subscale | 4 (1-12) | 6.5 (2-19) | **0.001** | 0.76 |
| Hunger Subscale | 3 (0-12) | 4 (1-11) | **0.004** | 0.39 |
| Body Shape Questionnaire | 74 (34-192) | 89.5 (36-183) | 0.06 | 0.36 |
| Beck Depression Inventory | 8.5 (0-49) | 9 (0-46) | 0.43 | 0.16 |
| Barratt Impulsiveness Scale | | | | |
| Total Score | 69 (52-80) | 71 (51-90) | 0.69 | 0.42 |
| Motor Impulsivity | 23 (16-35) | 24.5 (17-35) | 0.34 | 0.12 |
| Attentional Impulsivity | 21 (14-26) | 19.5 (14-28) | 0.50 | -0.06 |
| Non-Planning Impulsivity | 25 (17-34) | 27 (16-34) | **0.001** | 0.69 |

Mauro M et al. *Arch Endocrinol Metab* 2024; 68; 1-13

# Trastornos alimentarios

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*Journal of Human Nutrition and Dietetics*

JHND Journal of Human Nutrition and Dietetics | BDA The Association of UK Dietitians

ORIGINAL ARTICLE

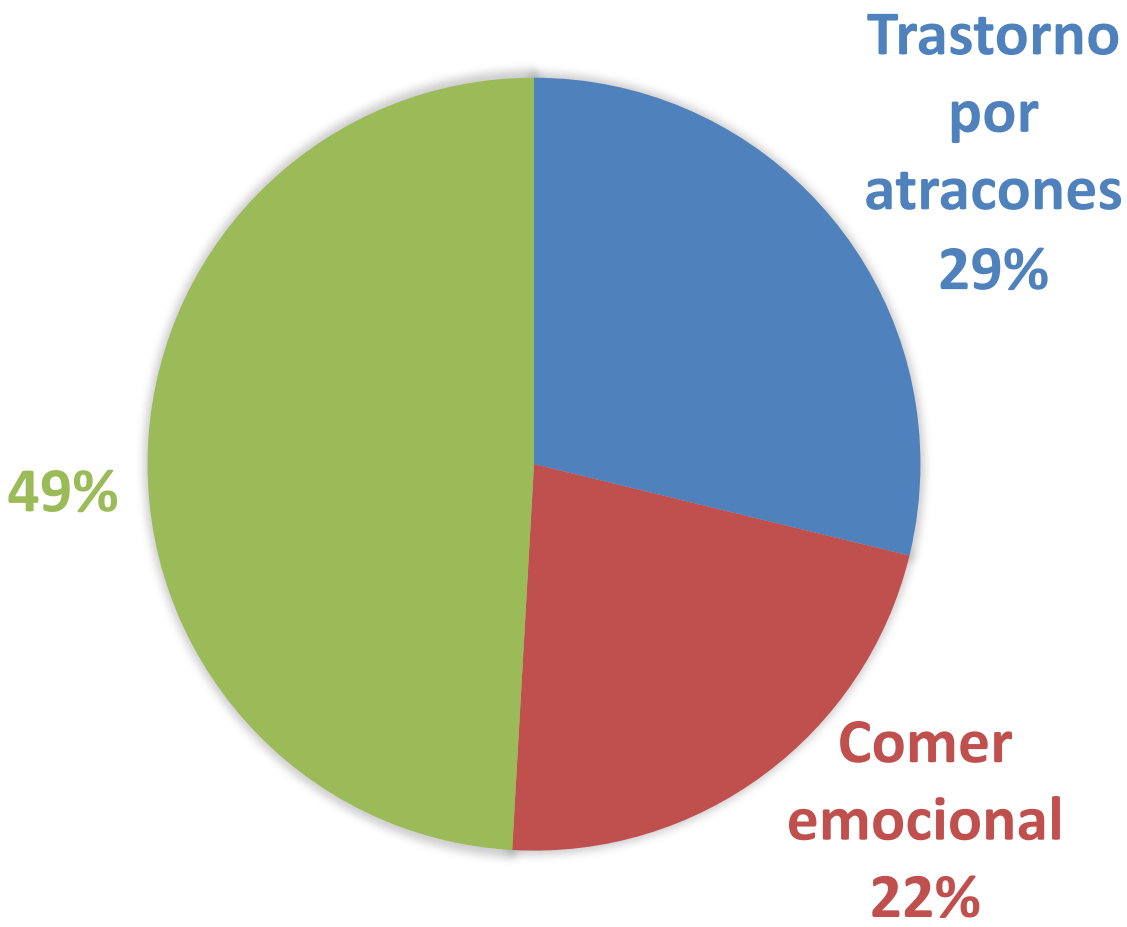
## Prevalence of Emotional and Binge Eating Among Patients With Obesity Attending a Specialist Weight Management Service for Bariatric Surgery in the United Kingdom

Yousef Alhindi[1,2,3] | Guy Holt[4] | Katy A. Jones[5] | Najat Khalifa[6] | Waleed Al-Khyatt[7] | Iskandar Idris[1,2,4]

[1]Department of Bariatric Medicine, Royal Derby Hospital Centre, University of Nottingham, Derby, UK | [2]National Institute for Health Research (NIHR) Nottingham Biomedical Research Centre, Nottingham, UK | [3]Division of Applied Medical Sciences, University of Hail, Hail, Saudi Arabia | [4]East Midlands Bariatric & Metabolic Institute, Royal Derby Hospital, Derby, UK | [5]Academic Unit of Mental Health and Clinical Neurosciences, School of Medicine, Institute of Mental Health, University of Nottingham, Nottingham, UK | [6]Department of Psychiatry, Queen's University, Kingston, Ontario, Canada | [7]Bariatric & Metabolic Centre of Excellence, Healthpoint Hospital, Abu Dhabi, United Arab Emirates

Alhindi Y et al. *J Human Nut Diet* 2025; 38; 13415

# Trastornos alimentarios




Alhindi Y et al. *J Human Nut Diet* 2025; 38; 13415

# Conducta alimentaria

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ORIGINAL ARTICLE

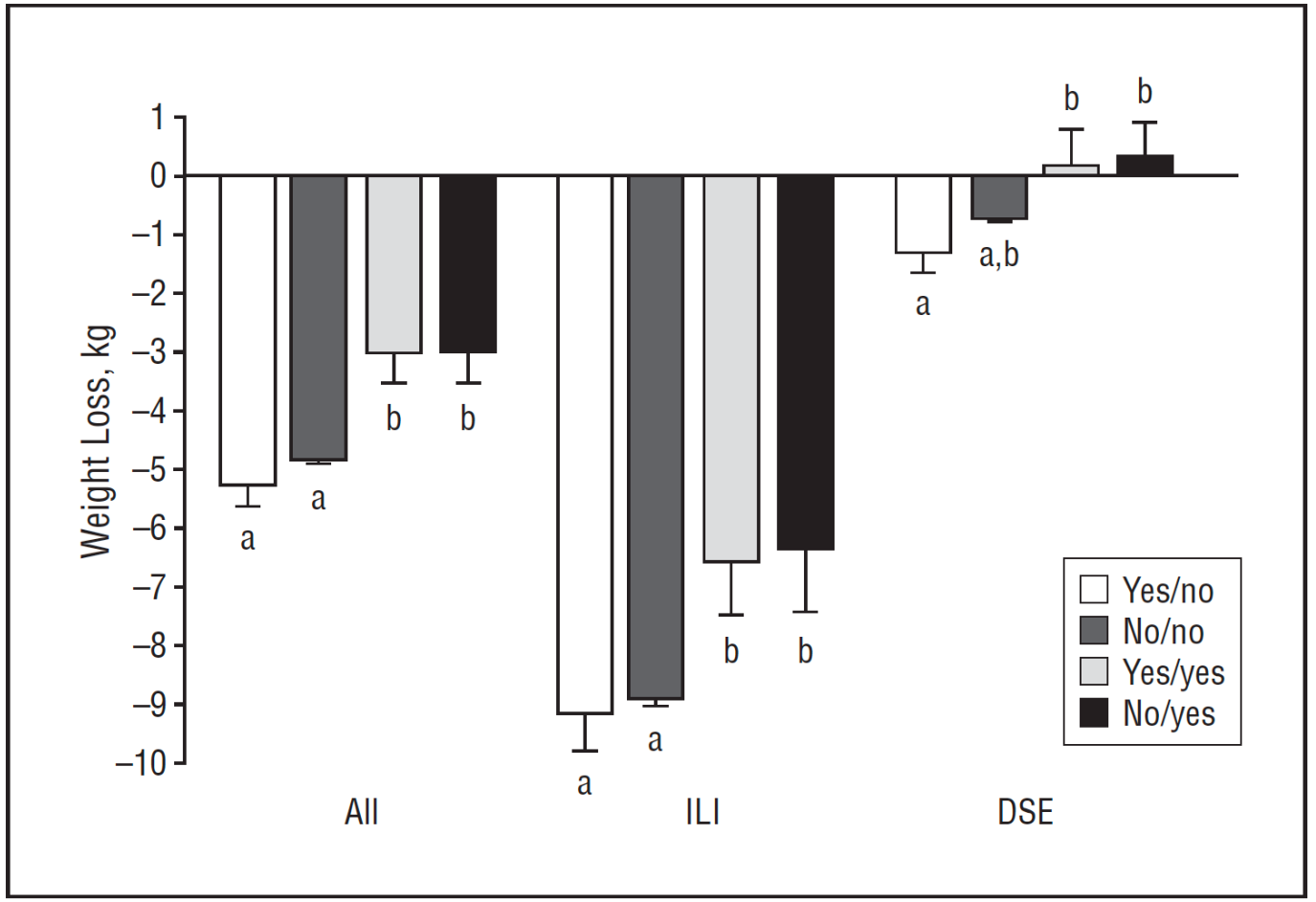
## Binge Eating and Weight Loss Outcomes in Overweight and Obese Individuals With Type 2 Diabetes

### *Results From the Look AHEAD Trial*

*Amy A. Gorin, PhD; Heather M. Niemeier, PhD; Patricia Hogan, MS; Mace Coday, PhD; Cralen Davis, MS; Vicki G. DiLillo, PhD; Marci E. Gluck, PhD; Thomas A. Wadden, PhD; Delia S. West, PhD; Donald Williamson, PhD; Susan Z. Yanovski, MD; for the Look AHEAD Research Group*

Gorin A. et al. *Arch Gen Psychiatry* 2008; 65: 1447-1455

# Baja de peso




Gorin A. et al. *Arch Gen Psychiatry* 2008; 65: 1447-1455

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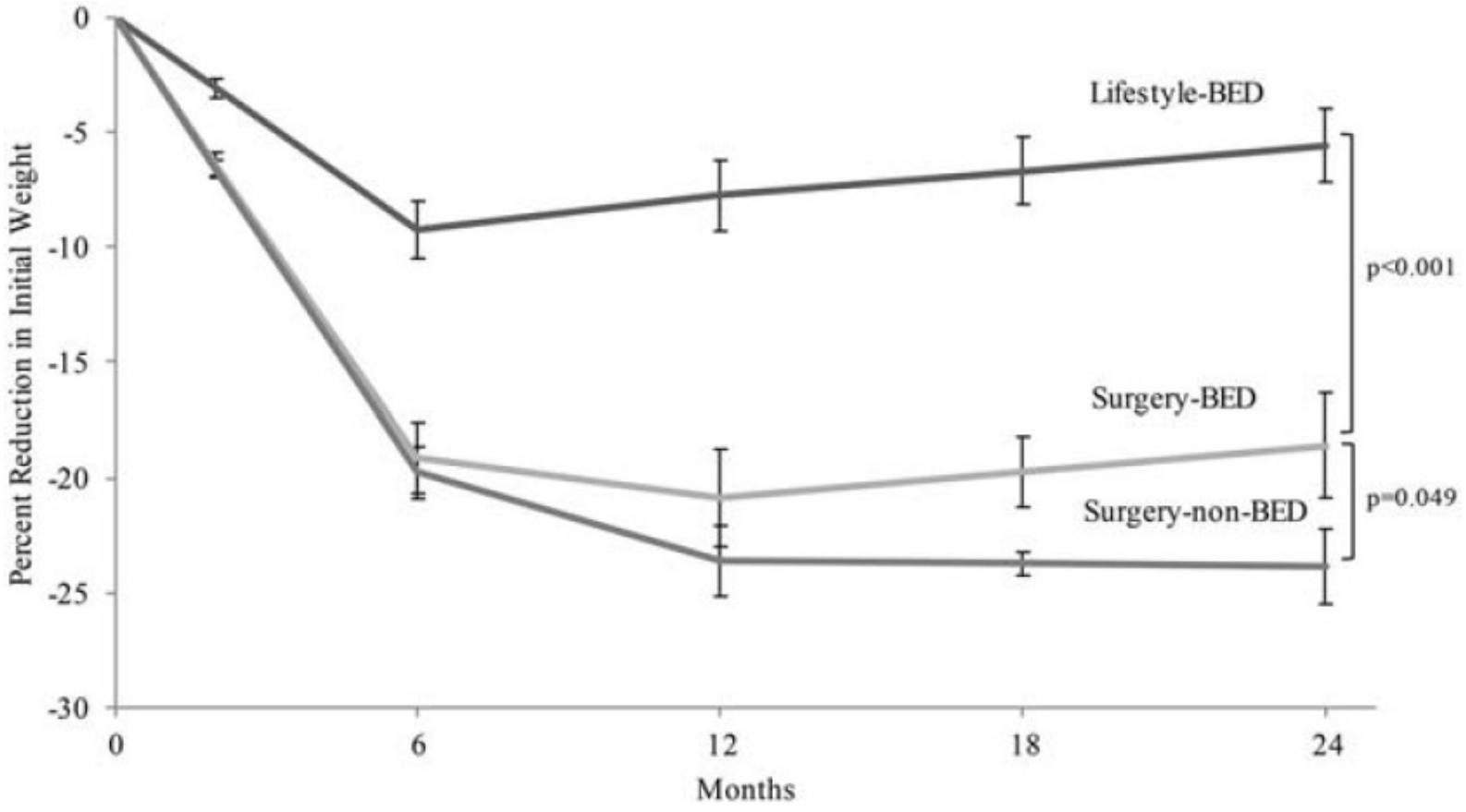
**Original Article**
CLINICAL TRIALS AND INVESTIGATIONS

Obesity

# Binge-Eating Disorder and the Outcome of Bariatric Surgery in a Prospective, Observational Study: Two-Year Results

*Ariana M. Chao[1,2], Thomas A. Wadden[2], Lucy F. Faulconbridge[2], David B. Sarwer[3], Victoria L. Webb[4], Jena A. Shaw[2], J. Graham Thomas[5], Christina M. Hopkins[2], Zayna M. Bakizada[2], Naji Alamuddin[6], and Noel N. Williams[7]*

# Trastorno por atracones




Chao A et al. *Obesity* 2016; 24: 2327-2333

# Trastorno por atracones

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*European Eating Disorders Review*

WILEY

BRIEF REPORT OPEN ACCESS

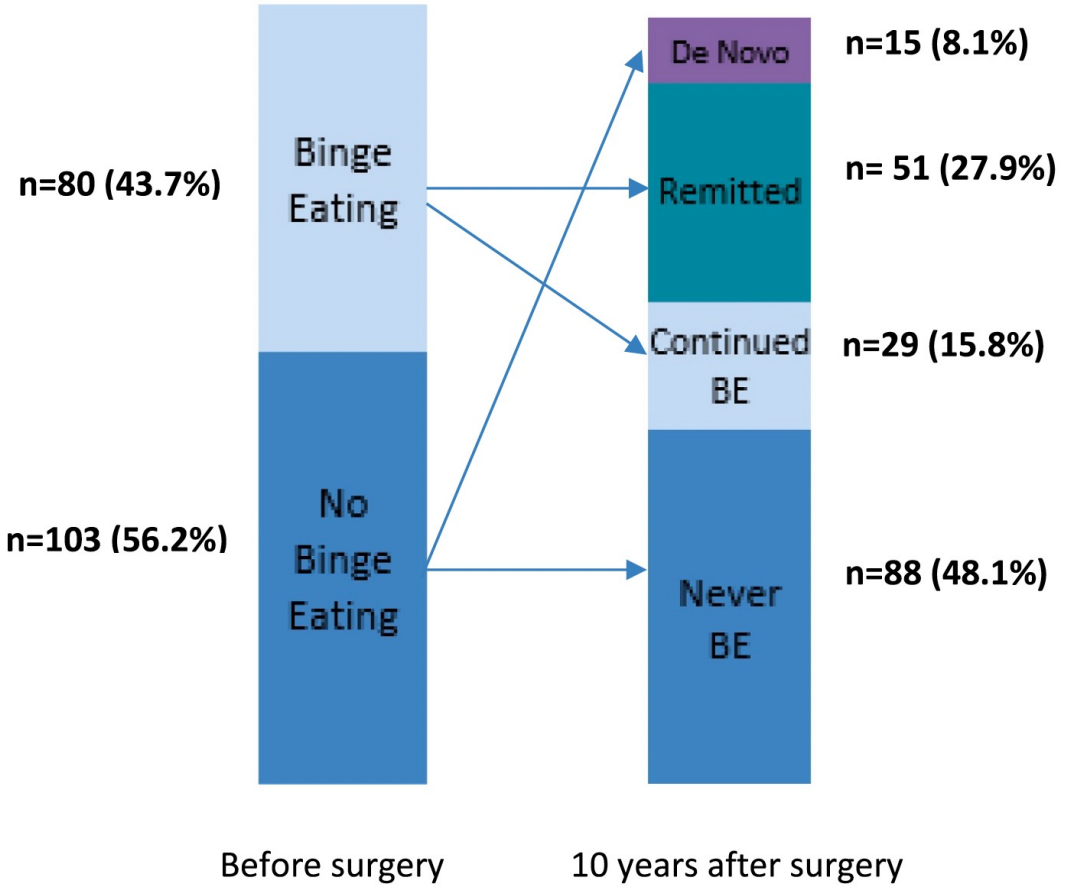
## Binge Eating Behaviour Before and 10 Years Following Metabolic and Bariatric Surgery

Deborah Lynn Reas[1] | Selma Øverland Lie[1] | Tom Mala[2,3] | Ingela Lundin Kvalem[4]

[1]Regional Department for Eating Disorders, Division of Mental Health and Addiction, Oslo University Hospital, Oslo, Norway | [2]Faculty of Medicine, Institute of Clinical Medicine, University of Oslo, Oslo, Norway | [3]Department of Gastrointestinal Surgery and Paediatric Surgery, Oslo University Hospital, Oslo, Norway | [4]Department of Psychology, Faculty of Social Sciences, University of Oslo, Oslo, Norway

Reas DL et al. *Euro Eating Disorders Rev* 2024; 3: 544-50

# Trastorno por atracones




Reas DL et al. *Euro Eating Disorders Rev* 2024; 3: 544-50

# Trastorno por atracones

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**TABLE 2** | Comparison of BE groups (never, remitted, continued, developed) at baseline and 10 years following metabolic and bariatric surgery ($N = 183$).

| | Total ($n = 183$) | Never BE[a] ($n = 88$) | Remitted BE[b] ($n = 51$) | Continued BE[c] ($n = 29$) | Developed BE[d] ($n = 15$) | $F/x^2$ | $p$ | $n^2/\Omega$ | Bonferroni post hoc |
|---|---|---|---|---|---|---|---|---|---|
| Pre-surgery | | | | | | | | | |
| Age | 44.8 (9.5) | 45.9 (8.9) | 46.2 (9.2) | **38.3 (9.6)** | 45.5 (9.6) | 4.3 | **< 0.001** | 0.064 | c < a,b |
| HADS T1 | 11.8 (6.7) | 10.9 (6.5) | 11.6 (6.7) | **15.6 (7.1)** | 10.3 (6.7) | 3.26 | **0.02** | 0.058 | c > a |
| BMI T1 | 42.9 (5.4) | 42.3 (5.5) | 43.7 (5.4) | 43.1 (5.4) | 43.7 (4.4) | 0.84 | 0.47 | 0.01 | — |
| Post-surgery | | | | | | | | | |
| HADS T2 | 10.7 (6.91) | 8.7 (6.3) | 11.2 (7.3) | **14.45 (6.9)** | 13.5 (5.1) | 6.19 | **< 0.001** | 0.101 | c > a |
| RePeat-Q | 1.58 (1.39) | 1.19 (1.03) | 1.22 (1.23) | **2.92 (1.70)** | **2.47 (1.04)** | 19.4 | **< 0.001** | 0.26 | c,d > a,b |
| CG Avg | 1.58 (1.51) | 1.19 (1.09) | 1.22 (1.45) | **2.85 (1.86)** | **2.64 (1.43)** | 15.46 | **< 0.001** | 0.218 | c,d > a,b |
| RE Avg | 1.58 (1.35) | 1.21 (1.07) | 1.23 (1.09) | **3.00 (1.63)** | **2.29 (0.98)** | 18.54 | **< 0.001** | 0.251 | c,d > a,b |
| BMI T2 | 32.7 (6.3) | 31.9 (6.2) | 32.1 (5.4) | 35.3 (7.3) | 35.4 (6.6) | 2.38 | 0.07 | 0.040 | — |
| % TWL | 23.8 (11.1) | 24.3 (11.4) | 25.9 (10.7) | 19.0 (12.4) | 20.2 (9.7) | 3.36 | 0.06 | 0.057 | — |
| % WR | 33.2 (26.0) | 31.7 (25.9) | 25.9 (24.0) | **49.4 (26.3)** | 37.1 (21.1) | 8.40 | **< 0.001** | 0.089 | c > a,b |
| % WR ≥ 25% | 59.2% | 54.5% | 50% | **84%** | **76.9%** | 10.5 | **0.015** | 0.25 | c,d > a,b |

Reas DL et al. *Euro Eating Disorders Rev* 2024; 3: 544-50

# Resultado a largo plazo

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Control Ingesta alimentaria → Control peso corporal

# Evaluación equipo

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# Estrategia de tratamiento

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- Control Conducta alimentaria
  - Psicofármacos
  - Terapia
- Control Peso
  - Tratamiento médico
  - Tratamiento quirúrgico

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# Tratamiento TCA

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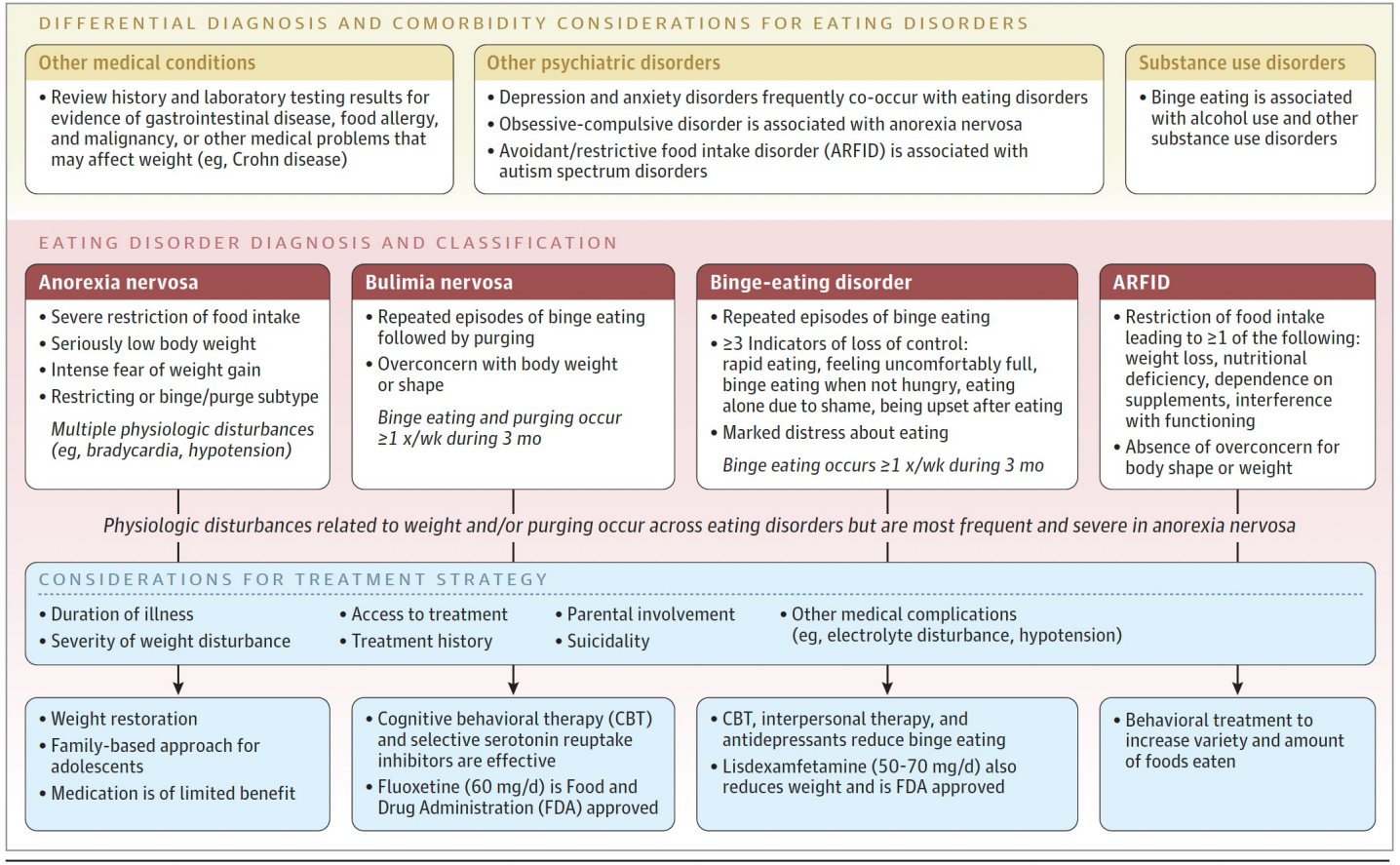
**Figure. Eating Disorder Differential Diagnosis, Assessment, and Treatment Considerations**




Attia E, et al. *JAMA* 2025; Epub ahead of print

# Estrategia de tratamiento

Clínica Universidad de los Andes

- Control Conducta alimentaria
  - Psicofármacos
  - Terapia
- Control Peso
  - Tratamiento médico
  - Tratamiento quirúrgico

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# Terapia combinada

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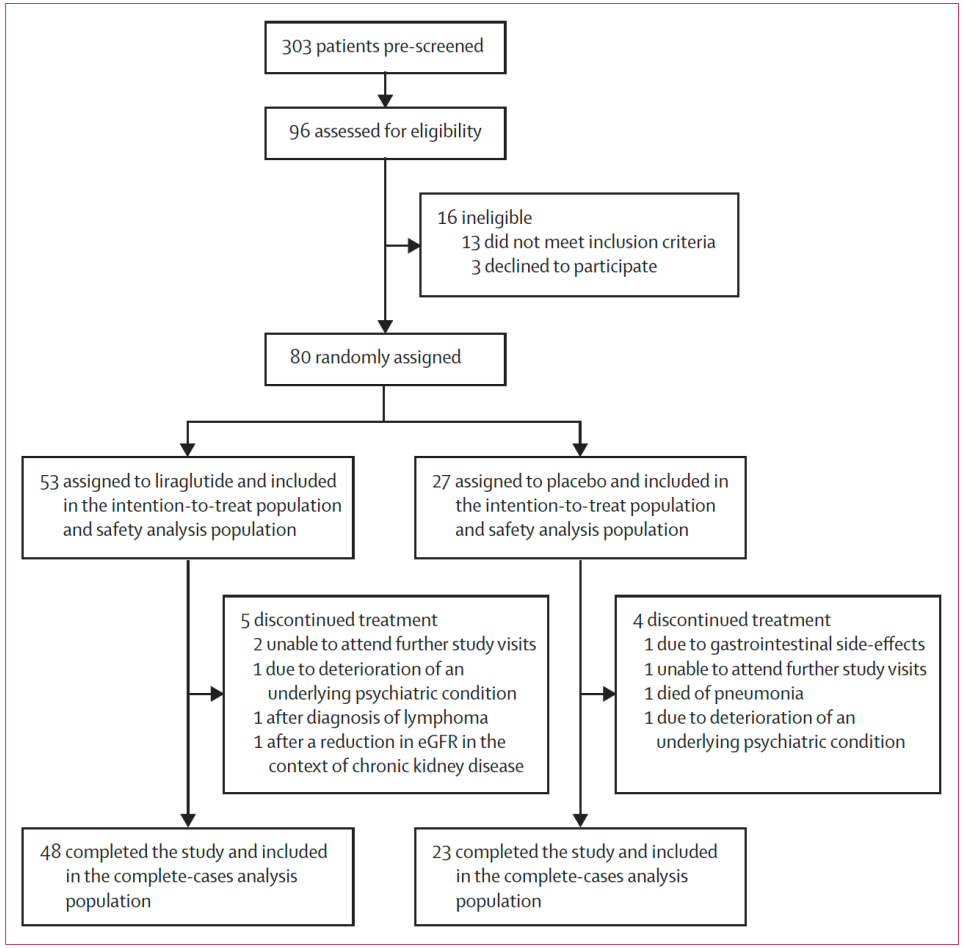
## Adjunctive liraglutide treatment in patients with persistent or recurrent type 2 diabetes after metabolic surgery (GRAVITAS): a randomised, double-blind, placebo-controlled trial

*Alexander Dimitri Miras*, Belén Pérez-Pevida*, Madhawi Aldhwayan, Anna Kamocka, Emma Rose McGlone, Werd Al-Najim, Harvinder Chahal, Rachel L Batterham, Barbara McGowan, Omar Khan, Veronica Greener, Ahmed R Ahmed, Aviva Petrie, Samantha Scholtz, Stephen R Bloom, Tricia M Tan*

Miras AD, et al. *Lancet Diabetes Endocrinol* 2019; 7: 549-59

# Diseño




Miras AD, et al. *Lancet Diabetes Endocrinol* 2019; 7: 549-59

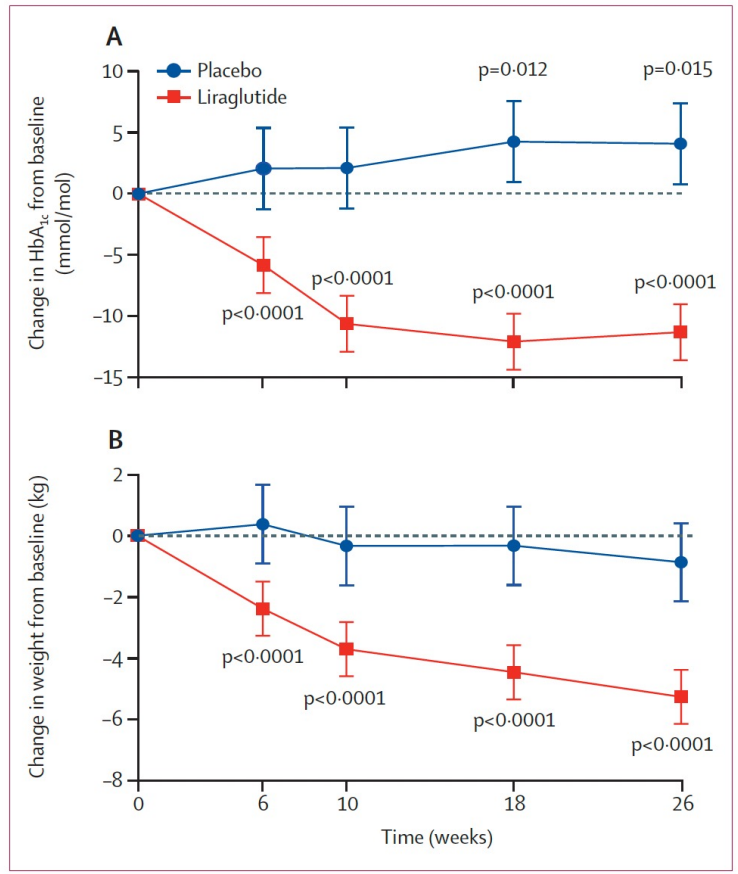



*Figure 2*: Effects of liraglutide and placebo over time on $HbA_{1c}$ (A) and bodyweight (B) in participants who completed the trial

Miras AD, et al. *Lancet Diabetes Endocrinol* 2019; 7: 549-59

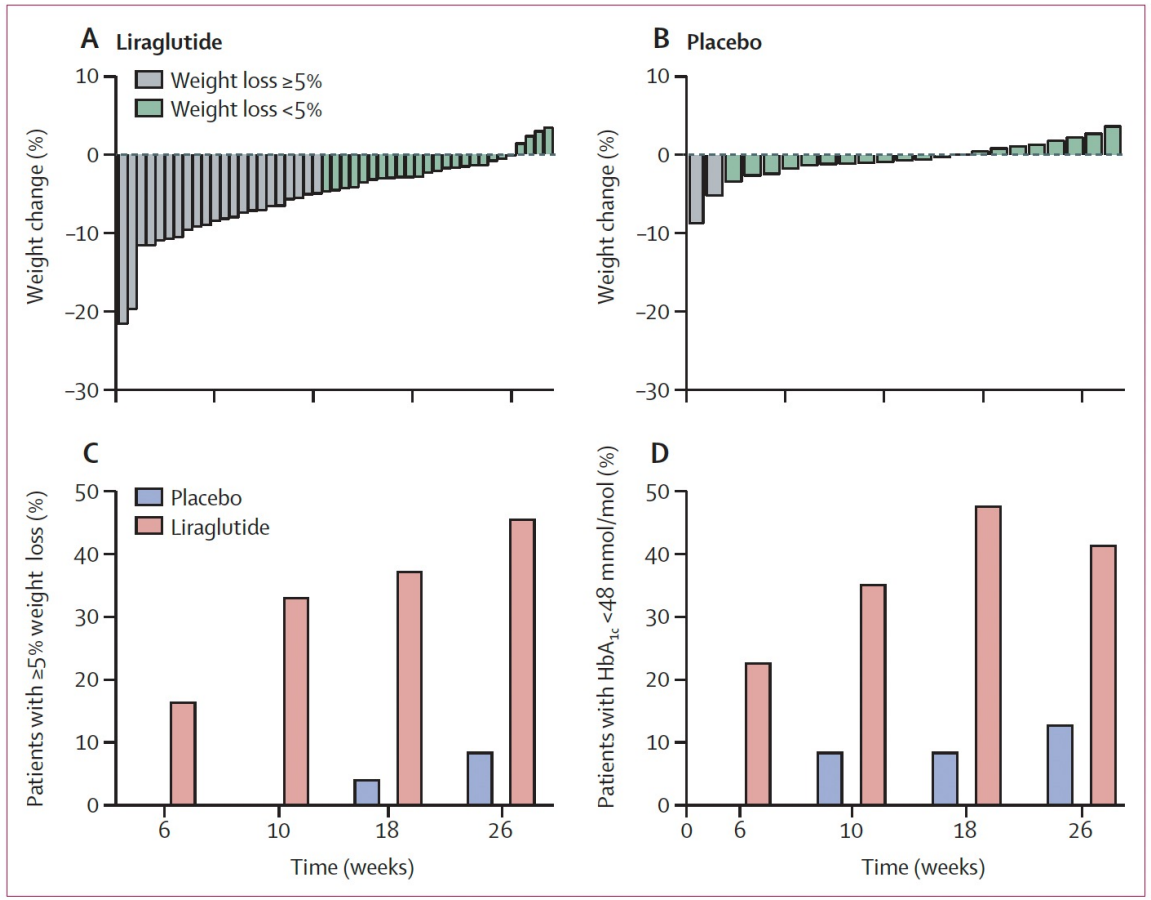



***Figure 3:*** **Weight loss and glycaemic improvement responses in participants who completed the trial**

Miras AD, et al. *Lancet Diabetes Endocrinol* 2019; 7: 549-59

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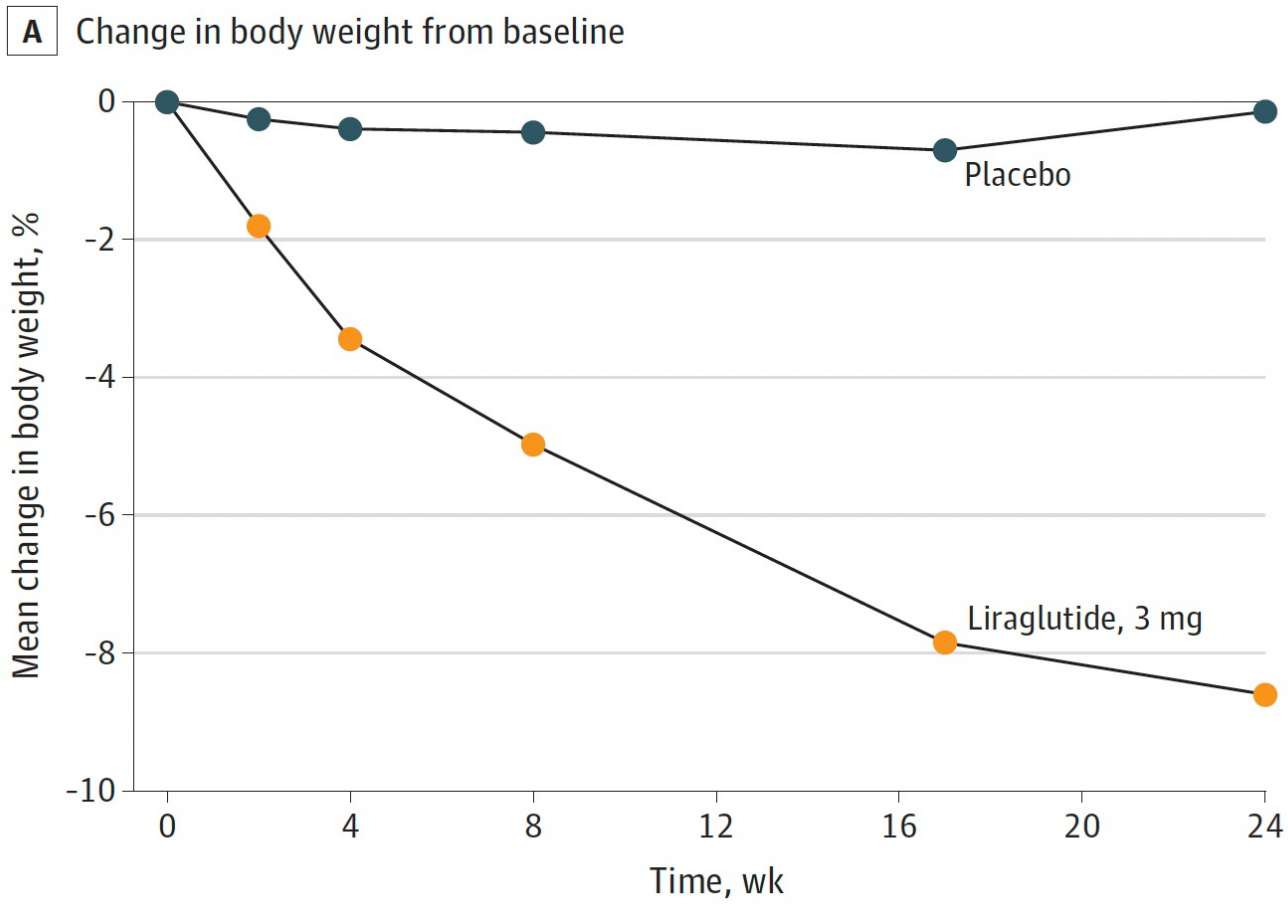
Research

JAMA Surgery | Original Investigation

# Safety and Efficacy of Liraglutide, 3.0 mg, Once Daily vs Placebo in Patients With Poor Weight Loss Following Metabolic Surgery
## The BARI-OPTIMISE Randomized Clinical Trial

Jessica Mok, BMBS, MPhil; Mariam O. Adeleke, PhD; Adrian Brown, PhD; Cormac G. Magee, MBBChir, MA; Chloe Firman, MRes; Christwishes Makahamadze, MRes; Friedrich C. Jassil, PhD; Parastou Marvasti, PhD; Alisia Carnemolla, PhD; Kalpana Devalia, MBBS, MS; Naim Fakih, MD; Mohamed Elkalaawy, MRCSEd, MS, MD; Andrea Pucci, MD, PhD; Andrew Jenkinson, MBBS, MS; Marco Adamo, MD; Rumana Z. Omar, PhD; Rachel L. Batterham, MBBS, PhD; Janine Makaronidis, MBChB, PhD

Mok J. et al. *JAMA Surg* 2023; 2939




Mok J. et al. *JAMA Surg* 2023; 2939

# Complicaciones

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Table 3. Adverse Events (AE)[a] in the BARI-OPTIMISE Study Population

| Event | Participants who experienced an AE, No. (%) | | |
|---|---|---|---|
| | Placebo (n = 35) | Liraglutide (n = 35) | Total (N = 70) |
| Total | 20 (57) | 28 (80) | 48 (67) |
| Total AEs, No.[b] | 75 | 37 | 112 |
| Gastrointestinal events | | | |
| Nausea | 7 (20) | 18 (51) | 25 (36) |
| Diarrhea | 2 (6) | 2 (6) | 4 (6) |
| Constipation | 2 (6) | 9 (26) | 11 (16) |
| Vomiting | 1 (3) | 1 (3) | 2 (3) |
| Abdominal pain | 1 (3) | 2 (6) | 3 (4) |
| Abdominal bloating | 0 | 1 (3) | 1 (1) |
| Dyspepsia | 0 | 1 (3) | 1 (1) |
| General and administration site events | | | |
| Headache | 2 (6) | 1 (3) | 3 (4) |
| Injection site reaction | 3 (9) | 2 (6) | 5 (7) |
| Urticaria | 0 | 1 (3) | 1 (1) |
| Fatigue | 2 (6) | 5 (14) | 7 (10) |
| Insomnia | 2 (6) | 0 | 2 (3) |
| Cardiovascular events | | | |
| Dizziness | 2 (6) | 3 (9) | 5 (7) |
| Palpitations | 1 (3) | 3 (9) | 4 (6) |
| Infections | | | |
| Upper respiratory tract infection | 2 (6) | 5 (14) | 7 (10) |
| Influenza | 2 (6) | 3 (9) | 5 (7) |
| Metabolic and nutritional events | | | |
| Decreased appetite | 3 (9) | 11 (31) | 14 (20) |
| Dry mouth | 2 (6) | 3 (9) | 5 (7) |
| Musculoskeletal events | | | |
| Back pain | 0 | 1 (3) | 1 (1) |
| Arthralgia | 2 (6) | 2 (6) | 4 (6) |
| Serious AEs | 0 | 0 | 0 |

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# Conclusiones

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- Control de ingesta alimentaria
- Diagnóstico de condiciones de pérdida de control de ingesta alimentaria
- Educación paciente

# Conclusiones

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- Intervención oportuna en trastornos alimentarios
- Formación profesionales

# Formación profesional


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