



# Weight Regain Post-Bariatric Surgery: Patient Insights

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## Background

- ◆ A considerable subset of post-operative (30%) bariatric patients regain weight (1-4).
- ◆ Post-op weight regain results in reversed co-morbidities, decrease in quality of life and cost-effectiveness of surgery (5-6).
- ◆ Psychological and behavioral factors associated with post-op regain is poorly understood.
- ◆ To assess needed services and areas for future research, this study surveys post-operative patients regarding their experience and perceptions of post-operative weight regain.

## Method

### Participants

◆ This sample consisted of 94 participants (2% male), with M=5.79 (SD 3.29) years post surgery. 93% of patients had a pre-surgical BMI >40 (M=49.49 (SD=8.12)). Lowest post-surgical BMI (BMI low= ) was significantly less than pre-surgery (p<.0001). Weight regain was significant [BMIregain; M=36.19 kg/m<sup>2</sup> (SD=8.99); p<.0001].

### Procedures

◆ Participants completed an online survey of perceptions and behaviors potentially related to post-surgical weight regain.

### Data Analyses

◆ Frequency analyses were calculated for perceptions and behaviors associated with post-surgical weight regain

## Results

### Internal Factors

◆ Most participants attributed weight gain to internal factors: 66%(N=62) to lack of personal accountability; 55% (N=51) to lack of motivation; and 47% (N=44) to unresolved emotional issues. Only one patient believed weight regain was due to a surgical error.

## Results cont.

### Support Factors

◆ A majority (73%, N=69) believed that poor support (personal and within bariatric program) was a factor. 90%(N=85) of participants reported need for a "special" bariatric program to maintain weight loss and 82%(N=77) reported they would attend a "back on track" program if offered.

**Table 1**  
Perceptions of Internal factors as a factor of weight regain

Lack of personal accountability	66% (N=62)
Lack of Motivation	55% (N=51)
Unresolved emotional issues	47% (N=44)

**Table 2**  
Perceptions related to support as a factor of weight regain

Need for a "back-on-track" program	90% (N=85)
Need for a "special" post bariatric program	82% (N=77)
Poor support (bariatric program & personal)	73% (N=69)

## Conclusions

Patients with post-surgical weight regain attribute weight regain post bariatric surgery to:

- ◆ Internal psychological factors (e.g., lack of accountability, motivation, emotional issues)
- ◆ Inadequate support (e.g., 90% report need for specially targeted bariatric programs to help maintain weight loss post surgery)

## Limitations

◆ Based on survey results rather than qualitative analyses of patient-generated responses.

## References

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# Factors Distinguishing Weight Loss Success & Failure at 5 or More Years Post-Bariatric Surgery

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## Background

- ◆ Recommendations for dietary intake, eating behaviors, and physical exercise are typically made to post-bariatric patients.
- ◆ Recommendations<sup>1-2</sup> address the following:
  - ◆ **Nutrition**
    - ◆ Total calories/day
    - ◆ % calories from protein, carbs
    - ◆ % calories from fat
    - ◆ Avoid high sugar foods
    - ◆ Eating at fast food vs. sit-down restaurants
    - ◆ Eating in front of TV
    - ◆ Drinking liquids with calories (e.g., high protein drinks)
  - ◆ **Fluid Intake**
    - ◆ Avoiding carbonated beverages
    - ◆ Avoiding excess caffeine
  - ◆ **Portion Control**
    - ◆ Limit portion sizes, grazing, mindless eating
  - ◆ **Vitamin Supplements**
    - ◆ Multivitamins
    - ◆ Calcium, iron
  - ◆ **Personal Accountability**
    - ◆ Weighing regularly
    - ◆ Attending support groups & surgical follow-up appointments
  - ◆ **Regular Exercise**
    - ◆ Aerobic exercise
    - ◆ Strength training
- ◆ Little is known about which are most associated with weight-loss success or failure over the intermediate to longer term (e.g., 5 or more years post surgery).

**Research Question:** At five or more years post surgery, do “Highly Successful” versus “Not Highly Successful” patients differ regarding their adherence to recommended guidelines?

## Methods

- ◆ Of 535 survey respondents, 255 were at least 5 years post weight loss surgery.
- ◆ Within those 255, two groups, a “Highly Successful” and “Not Highly Successful” were identified based on Excess Weight Loss (%EWL):
  - ◆ “Highly Successful” (HS) defined as  $\geq 80\%$  EWL (n=115)
  - ◆ “Not Highly Successful” (NHS) defined as  $\leq 40\%$  EWL (n=41)

## Participants

- ◆ Highly Successful = 45% of sample (115/ 255)
- ◆ Not Highly Successful = 16% of sample ( 41/ 255)
- ◆ Characteristics of final sample (n= 156) were:
  - ◆ 51.7 (SD=8.9) years old
  - ◆ 8.8 (SD=4.2) years post surgery
  - ◆ 96% female
  - ◆ 59% married
  - ◆ 89% White
  - ◆ 89.1% post gastric bypass
  - ◆ No significant group differences on demographic variables.

## Data Analyses

- ◆ Independent t-tests and chi-squares used to compare HS and NHS on reported behaviors.

## Results

Table 1  
**Behaviors Reported by Highly Successful vs. Not Highly Successful Patients at  $\geq 5$  Years Post Weight Loss Surgery**

Reported Behavior	Highly Successful $\geq 80\%$ EWL n=115	NOT Highly Successful $\leq 40\%$ EWL n=41	Sig (p)
Cals/day	1152 kCals	2190 kCals	<.001*
% Calories from protein	49%	36%	<.001*
% Calories from carbs	31%	40%	<.001*
% Calories from fat	20%	22%	ns
Eat protein first at least daily	67%	37%	<.002*
Eat high sugar foods at least daily	9.3%	40%	<.001*
Eat Fast Food at least weekly	19.4%	60.5%	<.001*
Eat at sit-down restaurant at least weekly	54%	65%	ns
Eat in front of TV at least weekly	43.5%	67.5%	<.01*
Drink meal replacements/ at least weekly	39.3	45.9	ns
Drink $\geq 1$ carbonated drink/day	7.5%	27%	<.003*
Drink caffeine $\geq 1$ /day	27.1%	48.6%	<.02*
Meal Portions too large $\geq 1x$ /day	9.3%	52.6%	<.001*

Table 1 (continued)

Reported Behavior	Highly Successful	NOT Highly Successful	Sig (p)
Snack Portions too large $\geq 1x$ /day	14.8%	47.4%	<.001*
Grazing $\geq 1$ /day	5.2%	45%	<.001*
Eat Mindlessly $\geq$ daily	7.8%	52.5	<.001*
Multivitamin daily	82.2%	56.8%	<.003*
Calcium	75.2%	43.2%	<.991*
Iron daily	55.4%	27.0%	<.004*
B12 daily	78.2%	40.5%	<.001*
Weigh daily	35.7%	7.3%	<.002*
Attend Support Groups	40.2%	13.3%	<.008*
Attend Surgical Follow-up	75.7%	67.5%	ns
Vigorous exercise $\geq 3x$ /wk	44.1%	13.5%	<.009*
Strength training $\geq 3x$ /wk	40.2%	26/6%	<.002*

## Limitations

- ◆ Findings based on on-line convenience sample
- ◆ Data do not include qualitative analyses of patient-generated responses.

## Conclusions

- ◆ Adherence to the majority of recommendations distinguished patients with and without a high degree of success at  $\geq 5$  years post surgery.

## References

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