

Bariatric Surgery: Behavioral Health Considerations

Melissa A. Kalarchian, Ph.D.

Copyright by Melissa A. Kalarchian, Ph.D. 2007

Agenda

- ◆ Brief overview of obesity and its surgical treatment
- ◆ Behavioral health considerations for
 - Preoperative screening and preparation
 - Postoperative intervention and support

Obesity

- ◆ Obesity refers to excess adiposity
- ◆ However, degree of adiposity is closely related to body weight

Body Mass Index

- ◆ Calculated as:
$$\frac{[\text{Body Weight (kg)}]}{[\text{Height (m)}]^2}$$
- ◆ Correlates highly with adiposity, but does not provide information about regional fat disposition

Classifications for BMI*

*NHLBI Obesity Education Initiative

	BMI
Underweight	<18.5
Normal Weight	18.5-24.9
Overweight	25-29.9
Obesity (Class 1)	30-34.9
Obesity (Class 2)	35-39.9
Obesity (Class 3)	≥ 40

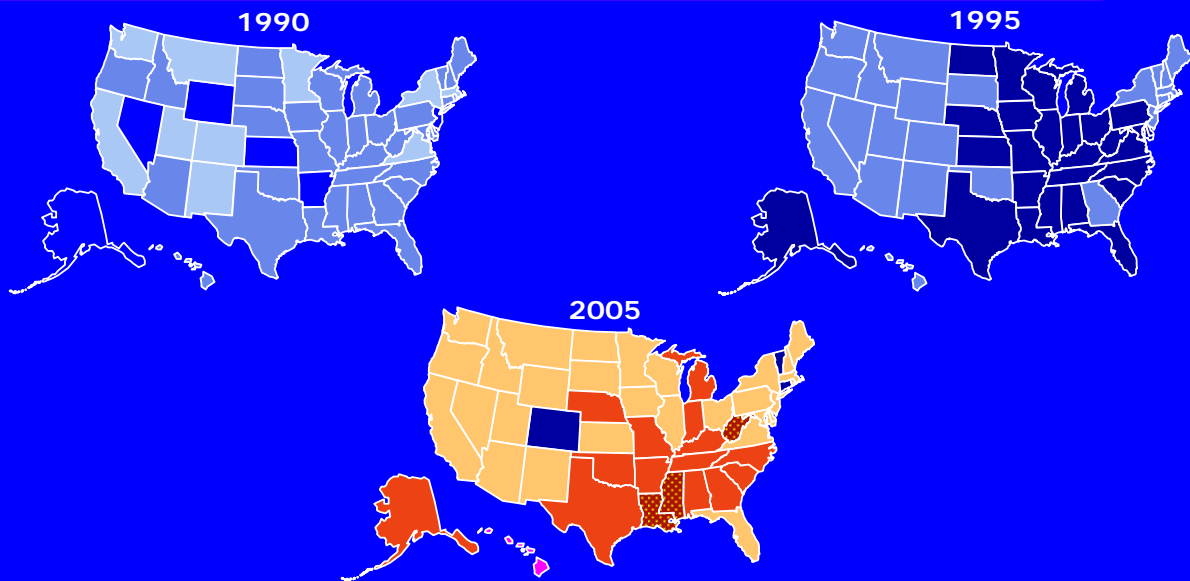
Prevalence of Obesity

- ◆ Obesity has increased in men, women, and children across all regions, ages, ethnic groups, and levels of education
- ◆ Nearly 65% of adults in the US are overweight or obese (based on the NHANES surveys)

Obesity Trends* Among U.S. Adults

BRFSS, 1990, 1995, 2005

(*BMI ≥ 30 , or about 30 lbs overweight for 5'4" person)

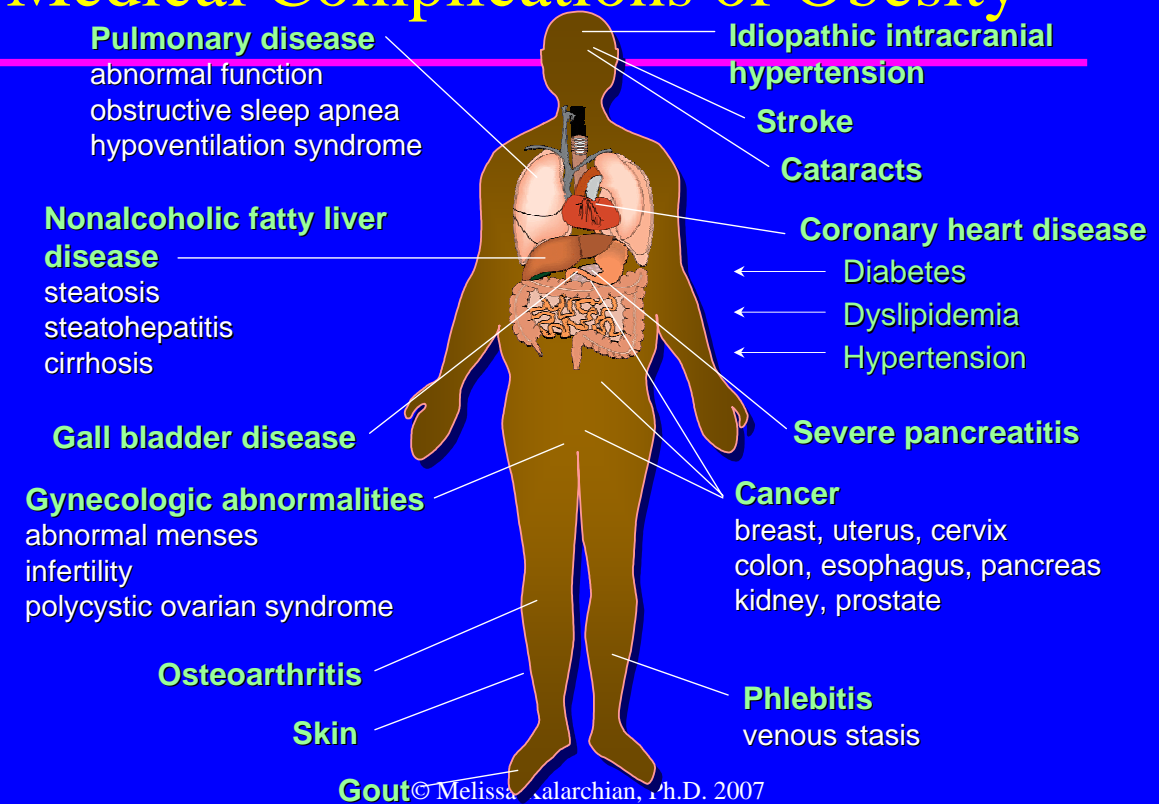


© Melissa Kalarchian, Ph.D. 2007

Gene-Environment Interaction

- ◆ The rapidity of the increase suggests that genetic changes are not responsible
- ◆ In a so-called “toxic” or “obesigenic” environment, those who are prone to obesity have a greater tendency to gain weight

Medical Complications of Obesity



Obesity and Mental Health

- ◆ Initial studies found few differences between normal weight and obese individuals in mental health
- ◆ Recent research documents links between obesity, depression and binge eating, especially among those who seek treatment

Should obesity be treated?

- ◆ YES! Weight loss of 5 – 10% of initial body weight is associated with short-term improvements in health parameters such as blood pressure, cholesterol levels, and glycemic control
- ◆ However, the long-term effects of weight loss on health are not known

Behavioral Treatment

- ◆ Comprehensive behavioral lifestyle interventions are the cornerstone of all obesity treatment
 - Modest caloric restriction
 - Increased activity and exercise
 - Use of behavior modification techniques

Behavioral Treatment Outcomes

- ◆ Average weight loss over approximately 20 weeks is 8.5 kg (20 lb), and typical weight regain is 30-35% by one year posttreatment*
- ◆ Thus, strictly behavioral approaches have generally not helped severely obese individuals achieve a large and sustained weight loss

*Wadden & Sarwer, 1999

Surgical Treatment

- ◆ Bariatric surgery appears to be the most effective treatment for class III obesity (BMI \geq 40)
- ◆ Also recommended for individuals with class II obesity (BMI 35-39.9) and serious comorbid risk factors (e.g., CHD, type 2 diabetes)

*1991 NIH Consensus Development Panel

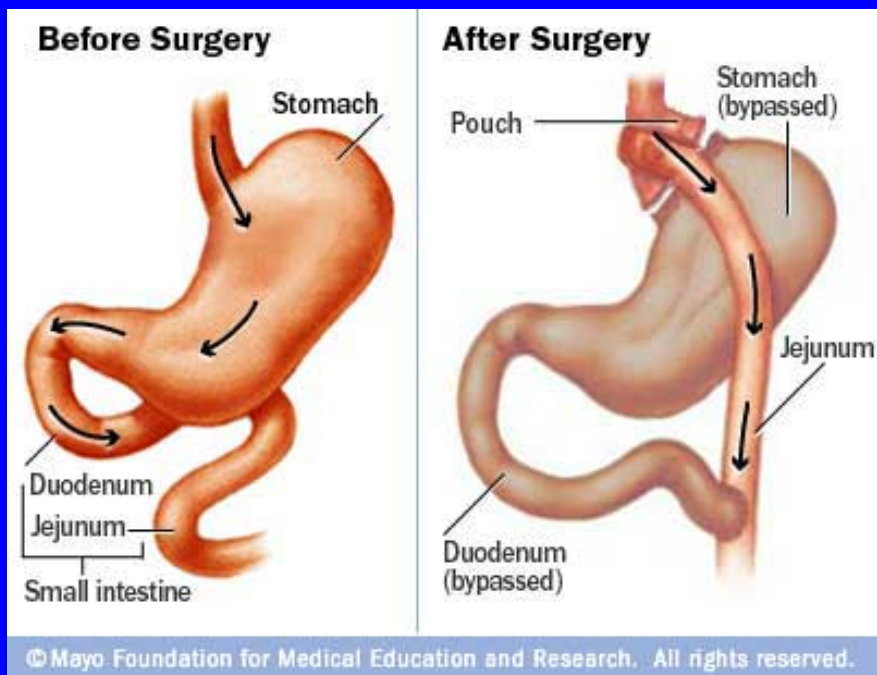
How common is surgery?

- ◆ Use has increased substantially from 1991 to 2003
- ◆ Trend toward disproportionate and increasing use among women, those with private insurance and wealthier zip codes, with > 200,000 operations projected by 2010 (Santry et. al, 2005)
- ◆ Worldwide, about 1% of patients qualifying for surgery receive it (Buchwald & Williams, 2004)

What type of procedures are currently being performed?

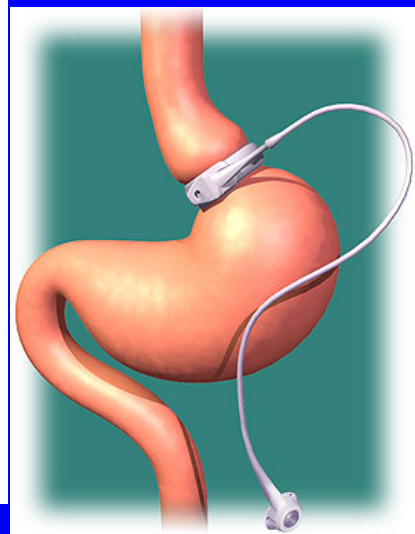
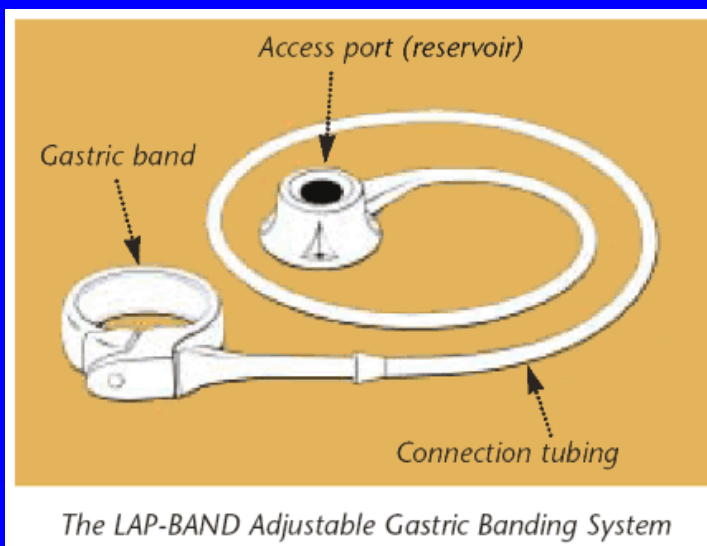
- ◆ Although the gastric bypass remains the most common in the US, laparoscopic adjustable gastric banding has been more common in Europe
- ◆ The laparoscopic adjustable gastric band (Lap-Band) was approved by the FDA in 2001

Roux-en-Y Gastric Bypass



© Melissa Kalarchian, Ph.D. 2007

Lap-Band



Mechanisms for Weight Loss

- ◆ Restriction only (e.g. Lap-Band)
- ◆ Restriction plus malabsorption (e.g. gastric bypass)

Surgical Risks

- ◆ Risks of major abdominal operation including bleeding, infection, heart or lung problems, blockage of the intestine by adhesions, hernia through the incision, risks of anesthesia
- ◆ Some patients require follow-up surgery to correct complications

Surgical Treatment Outcomes

- ◆ In a large meta analysis, overall weight loss was 61.2%
- ◆ Improvements or resolution of diabetes (86%), hyperlipidemia (70%), Hypertension (79%) and obstructive sleep apnea (84%)

* Buchwald et. al. JAMA 2004

Psychosocial Outcomes

- ◆ Improvements in social relations and employment
- ◆ Reductions in depression and anxiety
- ◆ Decreases in binge eating

* Herpertz et. al, 2003; Bocchieri et. al, 2002

Variability in Outcomes

- ◆ Weight loss generally continues for 18 months to 2 years after operation
- ◆ Approximately 20% of patients will experience inadequate weight loss or regain (Benotti & Forse, 1995)
- ◆ Psychosocial benefits may erode over time

Preoperative Screening and Preparation

Who is a candidate?

- ◆ BMI >40 or >35 with comorbidities
- ◆ Failed nonsurgical weight loss
- ◆ Understands risks and benefits

- ◆ Insurance approval may take months
- ◆ Other criteria may vary

Preperatove Consultations

- ◆ Psychiatry/psychology
- ◆ Nutrition
- ◆ Pulmonary
- ◆ Cardiology
- ◆ Gastrointestinal
- ◆ Endocrine
- ◆ Gynecology

Psychological Evaluation

- ◆ The psychological evaluation can be used to identify psychiatric disorder, provide treatment referrals, and flag any contraindications for surgery
- ◆ It also provides an opportunity to educate patients, resolve ambivalence, and build motivation

Evaluation of Surgical Candidates

- ◆ Evaluator should understand psychosocial consequences of obesity
- ◆ Should be sensitive to shame associated with obesity
- ◆ Should examine preconceptions or prejudices about obesity and binge eating

Components of a Comprehensive Psychiatric Evaluation

- ◆ Reason for referral
- ◆ Background information
- ◆ Observations/Test results
- ◆ Summary and recommendations

Patient History

- ◆ Reason of seeking treatment
- ◆ History of any psychiatric problems
- ◆ History of dieting and binge eating
- ◆ Results of any previous evaluations or treatment
- ◆ Results of previous weight loss attempts
- ◆ Relevant personal and family information
- ◆ Medication and dietary supplements

Treatment Recommendations

- ◆ Empirically supported treatments exist for many psychiatric disorders potentially relevant to the bariatric surgery patient
 - Eating disorders (e.g., binge eating)
 - Mood disorders (e.g., depression)
 - Anxiety disorders (e.g., social phobia, PTSD)
 - Borderline personality disorder

Treatment Recommendations

- ◆ Empirically supported treatments also exist for many health issues potentially relevant to the bariatric surgery patient
 - Obesity
 - Smoking
 - Somatic Problems (e.g., headache, pain insomnia)
 - Sexual dysfunction and marital problems

What are some possible contraindications for surgery?

- ◆ Concerns about patient's ability to give informed consent or comply with behavior changes required after operation
- ◆ Current severe or uncontrolled psychopathology such as alcoholism, schizophrenia, or bipolar disorder

Clinical Decision Making

- ◆ There are no well-established predictors of surgery outcome (including eating disorders)
- ◆ There are few alternate treatments for individuals who qualify for surgery

Patient Goals and Expectations

- ◆ Some patients may have unrealistic goals and expectations for weight loss
- ◆ Personal goals and expectations may affect success at long-term weight control
- ◆ The behavioral health provider may provide psychoeducation, foster realistic expectations, and build motivation

Patient Knowledge Gaps

- ◆ A significant minority of patients
 - Believe that surgery makes it impossible to overeat (>25%)
 - Have unrealistic weight loss expectations (19% high and 30% low)
 - Do not know the symptoms of dumping (>20%)
 - Believe there is no need to worry if depression occurred in the postoperative period (27%)

* Gonder-Frederick et. al., Bariatric Times, Nov./Dec. 2004

Decisional Balance

◆ CONS

- ◆ It's a major operation with potential for medical complications
- ◆ I'll have to undergo careful medical monitoring for life
- ◆ I'll have a scar
- ◆ I'll miss time from work
- ◆ I'll feel like a failure

◆ PROS

- ◆ It's my best chance at long-term weight control
- ◆ I'll have a tool to help me eat less food at each meal
- ◆ Losing weight will help me perform better at my job
- ◆ Losing weight may help improve my diabetes and reduce my medications

Preoperative Behavior Change

- ◆ Patients sometimes asked to maintain body weight or lose weight prior to surgery
- ◆ Patients asked to quit smoking prior to surgery
- ◆ Reduces risk, establishes healthy habits, and tests motivation and commitment

Postoperative Intervention and Support

Typical Schedule of Postoperative Care

- ◆ Discharge
- ◆ 2 weeks
- ◆ 6 weeks
- ◆ Every 2 – 3 months
- ◆ Every 6 months
- ◆ Annually thereafter

Postoperative Eating

- ◆ Patients must eat slowly, chew well, and stop as soon as one feels full
- ◆ Patients transition from clear liquids to pureed foods, to soft foods
- ◆ Supplements reduce but do not eliminate the chance of nutritional deficiencies
 - Calcium, multivitamin, B-12 injections, Iron

Dumping Syndrome

- ◆ Caused by excessive consumption of simple carbohydrate after gastric bypass
 - Light headedness
 - Sweating
 - Palpitations
 - Cramps or diarrhea

Postoperative Vomiting

- ◆ Nausea and vomiting vary across patients and generally improve with time (retrospective reports may be exaggerated)
 - can be **involuntary** and associated with nausea after taking certain medications (e.g. antidepressants or aspirin), eating too much, eating too fast, etc.
 - can be **self-induced** to relieve feelings of fullness/discomfort, to counteract the effects of eating on body weight, etc.

Postoperative Eating Problems

- ◆ Although surgery has a positive impact overall, some patients do experience the onset of eating disorders after bariatric surgery (or other behavioral health concerns)
- ◆ Eating disorders may be most common among those who had binge eating or other eating problems prior to operation

Possible Markers of Postoperative Eating Disorders

- ◆ Anxiety over eating and food aversions
- ◆ Persistent nausea and vomiting
- ◆ Chewing and spitting food out
- ◆ Eating in the absence of hunger
- ◆ Maladaptive eating behaviors, such as frequent eating episodes and excessive consumption of high calorie liquid
- ◆ Emotional eating

Rapid Weight Loss

- ◆ Weight loss generally continues up to 2 years after operation
- ◆ Rapid weight loss requires many physical and emotional adjustments

Physical Activity

- ◆ Physical activity may improve long-term weight control
- ◆ Consider patient health, fitness, and lifestyle
- ◆ Always get a doctor's clearance before starting or changing physical activity

Encouraging Healthy Eating, Activity, and Weight Control

- ◆ Use self-monitoring (food diary, pedometers)
- ◆ Keep a weight graph
- ◆ Set small, realistic goals (specific, measurable, realistic, and time bound)
- ◆ Increase gradually
- ◆ Build social support

Psychosocial Considerations

- ◆ Some patients experience the onset or recurrence of psychological problems after operation
- ◆ Some experience interpersonal or vocational changes as they lose weight rapidly
- ◆ Some are affected by a changing body image

Summary

- ◆ Behavioral health providers can play an important role in multidisciplinary management of the bariatric surgery patient
- ◆ Patient needs change over time as they progress from preoperative screening and preparation to postoperative adjustment and longer-term weight stabilization