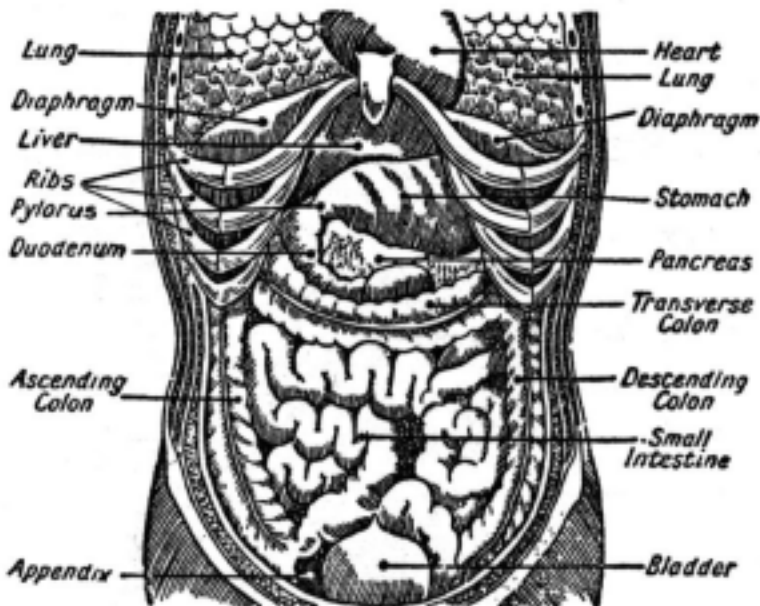



BARIATRIC SURGERY PRIMER

Food for Thought





*Thou seest I have more flesh than another man,
and therefore more frailty.*

**King Henry the Fourth,
Part I – Act III, Scene III**

CONTENTS

EXECUTIVE SUMMARY	i
OBESITY: Defining the Problem	1
What is obesity?	
How is obesity defined?	
What is body mass index (BMI)?	
How is weight status classified using BMI?	
What are the limitations of BMI?	
What is your BMI?	
What are the BMI classifications?	
What is the prevalence and impact of obesity?	
What is the prevalence of obesity in New York State?	
What medical conditions are related to obesity?	
How are health and disease risks related to BMI?	
BARIATRIC SURGERY: Framing the Issue	5
Which patients are candidates for bariatric surgery?	
Should adolescents be considered as candidates for bariatric surgery?	
What are the benefits of bariatric surgery?	
What risks are associated with bariatric surgery?	
How does one find a bariatric surgeon?	
How is bariatric surgery performed?	
What are the components of bariatric surgery?	
What are the different types of bariatric surgery?	
Which type of bariatric surgery is best?	
What to expect prior to your bariatric surgery?	
What to expect after your bariatric surgery?	
How effective is bariatric surgery?	
How much does bariatric surgery cost?	
Do you have bariatric surgery coverage?	
DEFINITIONS	10
BARIATRIC SURGERY CANDIDATE CHECKLIST	11
Patient Criteria	
About the Surgeon	
About the Hospital	
ENDNOTES	13

EXECUTIVE SUMMARY

According to the federal Centers for Disease Control and Prevention (CDC) obesity in the United States has risen at an alarming rate during the past 20 years. The CDC estimates that 64% of Americans are overweight or obese, resulting in 400,000 preventable deaths each year. Obesity is now considered a national epidemic and a major national health crisis.

A RAND Corporation study released in October 2003 found the proportion of Americans with clinically severe obesity increased from 1 in 200 adults in 1986 to 1 in 50 adults in 2000 — growing twice as fast as the proportion of Americans who are simply obese.¹ The study suggests that clinically severe obesity, instead of being a rare pathological condition among genetically vulnerable individuals, is an integral part of the population's weight distribution. As the whole population becomes heavier, the extreme category — the severely obese — has grown at the fastest rate.

It is estimated that the cost of treating obesity is between 5% and 9% of all national healthcare expenditures, making the dollar cost of treating obesity approximately \$77 billion to \$98 billion annually.² Total Medicare and Medicaid adult medical expenses attributed to obesity in New York is estimated to be over \$6 million dollars.³ A recent study of the relationship between obesity and future healthcare costs found the cost of providing health care to overweight individual is 10% higher than for persons with a normal Body Mass Index (BMI). The cost of caring for an obese individual was 36% higher.⁴

The CDC estimates that 59 million Americans — about 31% of adults — are obese, meaning they have a Body Mass Index of 30 or more. That means that more than one in four American adults is considered obese. Between 5 and 10 million American adults are considered morbidly obese, meaning they are 100 pounds above a healthy weight for men and 80 pounds above a healthy weight for women. The increasing prevalence of obesity and the resulting clinical and economic burden, together with the poor results of medical weight loss therapy, has focused attention on surgical treatment options.

The National Institute of Health's Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults, found that "weight loss surgery is an option for carefully selected patients with clinically severe obesity (BMI \geq 40 or \geq 35 with comorbid conditions) when less invasive methods of weight loss have failed and the patient is at high risk for obesity-associated morbidity or mortality."

With more than five million Americans classified as "morbidly obese" the demand for bariatric surgery is on the rise. According to the American Society for Bariatric Surgery, 103,200 Americans, mostly women, underwent obesity surgery in 2003, compared with 63,100 in 2002 and about 47,000 in 2001. It is estimated that some 145,000 bariatric surgeries will be performed in 2004, more than double the number performed in 2002, and over five times the 25,800 surgeries performed in 1998. Bariatric surgery is not the easy way out of morbid obesity. While overall death rates for various gastric surgical procedures are low — less than 1% overall — complications are "more common" than mortality. About one in four people who undergo surgery for obesity need a follow-up surgical procedure within three to five years, while wound infections plague 8 to 20% of people who undergo gastric bypass surgery.

Bariatric surgery is a last resort for many who have struggled with being overweight and obese. The following information is intended to assist health care providers and individuals considering surgery.



OBESITY: Defining the Problem

What is obesity?

Obesity is defined as an excessively high amount of body fat or adipose tissue in relation to lean body mass. People become overweight and obese as a result of an imbalance in the amount of calories consumed and the amount of calories burned. Obesity means that a person has an unhealthy amount of body fat. Women with more than 30% body fat are considered obese while men with more than 25% body fat are considered obese.

Although overeating and lack of physical activity are the main causes of obesity, there are many contributing factors according to the Mayo Clinic. Some of these include genetics, age, pregnancy, medications and certain medical problems — such as low thyroid function, excess production of hormones by the adrenal glands or other hormonal imbalances.

How is obesity defined?

Adult obesity is determined using the body mass index. A person's body mass index is measured by their height/weight ratio. The National Heart, Lung and Blood Institute (NHLBI) Obesity Education Initiative Expert Panel on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults cautions that the relationship between BMI and body fat content varies somewhat with age, gender, and possibly ethnicity because of differences in the composition of lean tissue, sitting height and hydration state.

What is body mass index (BMI)?

Body Mass Index (BMI) is a mathematical calculation of body fat based on a person's height and weight. BMI is calculated by dividing a person's body weight in kilograms by their height in meters squared ($\text{weight [kg]} \div \text{height [m]}^2$) or if pounds and inches are used, $\text{BMI} = \text{weight (pounds)} \div 703 \div \text{height squared (inches}^2\text{)}$.

How is weight status classified using BMI?

The BMI is the primary measure used to screen for overweight and obese individuals. The classification of weight status is the same for men and women. Normal weight for adults 18 and over is defined as a BMI between 18.5 and 24.9. A person with a BMI of between 25 and 29.9 is considered overweight, and one with a BMI over 30 is considered obese. Extreme obesity is defined as weight in excess of 100 pounds over the Ideal Calculated Weight, or somewhat less than 100 pounds if there is a serious associated medical condition.

What are the limitations of BMI?

Using BMI to gauge weight has some limitations. BMI fails to judge fat/muscle ratio. A healthy, muscular person who has very low body fat may be classified as obese using the BMI formula. For trained athletes or bodybuilders, a weight-assessment based on the percentage of body fat is a better indicator of what the person should weigh.

BMI also takes no specific account of body-frame size, so people with stocky builds/large body frames may be considered overweight even if they don't have a lot of body fat. Other individuals to whom the BMI does not apply include: people under 18 or over 65 years, and pregnant or breast-feeding women.

What is your BMI?

The following BMI table can be used to identify your body mass index. Find your height and follow across to your weight. The number at the top of the column is your BMI.

BMI (kg/m ²)	19	20	21	22	23	24	25	26	27	28	29	30	35	40
Height (in.)	Weight (lb.)													
58	91	96	100	105	110	115	119	124	129	134	138	143	167	191
59	94	99	104	109	114	119	124	128	133	138	143	148	173	198
60	97	102	107	112	118	123	128	133	138	143	148	153	179	204
61	100	106	111	116	122	127	132	137	143	148	153	158	185	211
62	104	109	115	120	126	131	136	142	147	153	158	164	191	218
63	107	113	118	124	130	135	141	146	152	158	163	169	197	225
64	110	116	122	128	134	140	145	151	157	163	169	174	204	232
65	114	120	126	132	138	144	150	156	162	168	174	180	210	240
66	118	124	130	136	142	148	155	161	167	173	179	186	216	247
67	121	127	134	140	146	153	159	166	172	178	185	191	223	255
68	125	131	138	144	151	158	164	171	177	184	190	197	230	262
69	128	135	142	149	155	162	169	176	182	189	196	203	236	270
70	132	139	146	153	160	167	174	181	188	195	202	207	243	278
71	136	143	150	157	165	172	179	186	193	200	208	215	250	286
72	140	147	154	162	169	177	184	191	199	206	213	221	258	294
73	144	151	159	166	174	182	189	197	204	212	219	227	265	302
74	148	155	163	171	179	186	194	202	210	218	225	233	272	311
75	152	160	168	176	184	192	200	208	216	224	232	240	279	319
76	156	164	172	180	189	197	205	213	221	230	238	246	287	326

Examples: a person who is 66 inches tall and weights 155 lbs has a BMI of 25, a person who is 70 inches tall and weights 278 lbs has a BMI of 40.

What are the BMI classifications?

BMI is not a perfect measure but it gives a fairly accurate assessment of how much of an adult's body is composed of fat.

BMI Classifications	
BMI	Classification
< 20	Under Weight
20-25	Healthy
25-30	Slightly Overweight
30-35	Obese
35-40	Severely Obese
>40	Morbidly Obese

National Institutes of Health Publication No. 98-4083
September 1998.

What is the prevalence and impact of obesity?

Obesity affects approximately 60 million adult Americans. The number of overweight and obese Americans has continued to increase since 1960, a trend that is not slowing down. Today, 64.5% of adult Americans (about 127 million) are categorized as being overweight or obese. A recent study released by the Centers for Disease Control and Prevention finds that 400,000 deaths in the United States were related to poor diet and physical inactivity⁵. According to the Surgeon General's Call to Action To Prevent and Decrease Overweight and Obesity the total direct and indirect costs attributed to overweight and obesity was \$117 billion in the year 2000.⁶ The World Health Organization's 1998 report on obesity stated that overweight

and obesity has reached epidemic proportions in the United States, as well as worldwide. Data collected by the National Center for Health Statistics indicate that the prevalence of obesity, defined as a body mass index $>30 \text{ kg/m}^2$ has increased from 12.8% in 1976-1980 to 22.5% in 1988-1994, and 30% in 1999-2000. Roughly 31% of American adults, about 59 million, meet the criterion for obesity. More than 64% of the adult population have a BMI $\geq 25 \text{ kg/m}^2$, which is defined as overweight.

Increase in Prevalence (%) of Overweight (BMI ≥ 25), Obesity (BMI ≥ 30) and Severe Obesity (BMI ≥ 40) Among U.S. Adults.			
	Overweight (BMI ≥ 25)	Obesity (BMI ≥ 30)	Severe Obesity (BMI ≥ 40)
1999 to 2000	64.5	30.5	4.7
1988 to 1994	56.0	23.0	2.9
1976 to 1980	46.0	14.4	No Data

Source: CDC, National Center for Health Statistics, National Health and Nutrition Examination Survey. Health, United States, 2002. Flegal et. al. JAMA. 2002;288:1723-7. NIH, National Heart, Lung, and Blood Institute, Clinical Guidelines on the Identification, Evaluation and Treatment of Overweight and Obesity in Adults, 1998.

What is the prevalence of obesity in New York State?

The New York State Behavioral Risk Factor Surveillance System (BRFSS) uses a method for classifying a respondent as overweight based on self-reported height and weight values. The New York State obesity data mirror national trends.

Prevalence of Adult Obesity in New York State						
Year	1991	1995	1998	1999	2000	2001
Percent Obese	12.8	13.3	15.9	16.9	17.2	19.7

1991–2001 Prevalence of Obesity Among U.S. Adults by State Behavioral Risk Factor Surveillance System (1991–2001)

What medical conditions are related to obesity?

Obesity is associated with increased morbidity and mortality. Obesity significantly increases patients' risk of morbidity from hypertension, type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea, respiratory problems, and cancers. Higher body weights are also associated with increases in all-cause mortality. The prevalence ratios of various medical conditions increase with overweight and obesity for men and women and are shown in Tables 1 and 2 on the next page.

Table 1. Prevalence of Medical Conditions by Body Mass Index (BMI) for Men

Medical Condition	Body Mass Index			
	18.5 to 24.9	25 to 29.9	30 to 34.9	≥ 40
	Prevalence Ratio (%)			
Type 2 Diabetes	2.03	4.93	10.10	10.65
Coronary Heart Disease	8.84	9.60	16.01	13.97
High Blood Pressure	23.47	34.16	48.95	64.53
Osteoarthritis	2.59	4.55	4.66	10.04

Source: National Health and Nutrition Examination Survey III, 1988 - 1994.

Table 2. Prevalence of Medical Conditions by Body Mass Index (BMI) for Women

Medical Condition	Body Mass Index			
	18.5 to 24.9	25 to 29.9	30 to 34.9	≥ 40
	Prevalence Ratio (%)			
Type 2 Diabetes	2.38	7.12	7.24	19.89
Coronary Heart Disease	6.87	11.13	12.56	19.22
High Blood Pressure	23.26	38.77	47.95	63.16
Osteoarthritis	5.22	8.51	9.94	17.19

Source: National Health and Nutrition Examination Survey III, 1988 - 1994.

How are health and disease risks related to BMI?

According to the CDC, BMI is only one of many factors used to predict risk for disease. BMI ranges are used to assess effect that body weight has on disease and death.⁷ As BMI increases, the risk for some disease increases. BMI cannot be used to determine if a person has a disease or a particular health condition. The following table shows the relationship between health risk, disease risk and BMI.

BMI	Health Risk Based on BMI	Health Risk Related to BMI & the Existence of Comorbid Conditions and/or Risk Factors	Disease Risk Related to Waist Circumference
19-24	Minimal	Low	—
25-26	Low	Moderate	—
27-29	Moderate	High	High
30-34	High	Very High	Very High
35-39	Very High	Extremely High	Very High
40+	Extremely High	Extremely High	Extremely High

Preventing and Managing the Global Epidemic of Obesity. Report of the World Health Organization Consultation of Obesity. WHO, Geneva, June 1997.

BARIATRIC SURGERY: Framing the Issue

Which patients are candidates for bariatric surgery?

A National Institutes of Health (NIH) Consensus Panel in 1991 determined that for people above a certain weight, it is highly unlikely that diet and exercise alone will lead to sustained weight loss.⁸ The panel concluded that when less invasive approaches fail, surgery might be an option for those who are severely obese.

Gastric bypass surgery is rarely used to treat obesity and it is not a quick-and-easy solution to obesity. Weight loss surgery is considered a last resort to treat morbid obesity after diet, exercise and medications fail. Candidates for surgery should be over their ideal body weight by at least 100 pounds for men and 80 pounds for women, or have a BMI of 35 or more plus a life threatening or disabling condition caused by their weight. Weight loss surgery should be reserved for patients in whom efforts at medical therapy have failed and who are suffering from the complications of extreme obesity.⁹ Consideration should also be given to the candidates' motivation to lose weight and their ability to comply with post surgery lifestyle changes.

Should adolescents be considered as candidates for bariatric surgery?

Surgical treatment for morbid obesity is relatively contraindicated in patients younger than 18 years of age. Bariatric surgery should only be done after the patient has completed all stages of puberty. "There are increased metabolic demands in adolescents during a period of active growth — in puberty," notes Samuel Kocoshis, MD, of Cincinnati Children's Hospital Medical Center and a member of the American Academy of Pediatrics' Executive Gastroenterology Council. "Because malnutrition can affect growth and development, in that respect, bariatric surgery can have a worse consequence on teens and children. It can result in reduced adult height and lead to osteoporosis."

At the 2003 Annual Scientific Session of the Society of American Gastrointestinal Endoscopic Surgeons, presenters reported on their experience with gastric banding in 20 adolescents.¹⁰ The median age of their patient population was 17 years (range, 12-19 years). They found that BMI decreased from 44.7 kg/m² to 30.2 kg/m² after 24 months. They reported two complications: a slipped band and a leaking port. Although strong recommendations should not be made based on these preliminary data, this less invasive and less-permanent procedure may have a role in the treatment of severe adolescent obesity.

What are the benefits of bariatric surgery?

Obese adults have a 50% to 100% increased risk of premature death compared to adults with a BMI of 20 to 25¹¹. Evidence shows that bariatric surgery provides medically significant sustained weight loss for more than five years in most patients.

"The evidence is solid that the risk for various cardiovascular and other diseases rises significantly when someone's BMI is over 25 and that risk of death increases as the body mass index reaches and surpasses 30," according to Dr. F. Xavier Pi Sunyer, chairman of the expert panel and director of the Obesity Research Center, St. Luke's/Roosevelt Hospital Center in New York City¹².

Obesity is clearly associated with increased morbidity and mortality. There is strong evidence that weight loss in overweight and obese individuals reduces the risk factors for diabetes and cardiovascular disease (CVD). Strong evidence also exists that weight loss reduces blood pressure in both overweight hypertensive and nonhypertensive individuals; reduces serum triglycerides and increases high-density lipoprotein (HDL) cholesterol; and generally produces some reduction in total serum cholesterol and low-density lipoprotein (LDL) cholesterol. Weight loss reduces blood glucose levels in overweight and obese persons with and without diabetes, and also reduces HbA1c in some patients with type 2 diabetes. Although there have been no prospective trials to show changes in mortality with weight loss in obese patients, reductions in risk factors would suggest that development of type 2 diabetes and cardiovascular disease would be reduced with weight loss. Post surgery, many patients report enhanced quality of life, improved mobility and stamina, better mood, self-esteem and interpersonal effectiveness, and lessened self-consciousness.

What risks are associated with bariatric surgery?

Bariatric surgery is major abdominal surgery, even when minimally invasive surgical techniques are used. The higher a patient's BMI, the greater the associated surgical risks. Surgery for patients who are obese carries a risk of significant early and late morbidity and of perioperative mortality. Bariatric surgery requires general anesthesia, two to four days of hospitalization and several weeks of physical recovery.

According to the National Institute of Diabetes and Digestive and Kidney Diseases:¹³

- ◆ Ten to 20% of patients who have weight loss surgery require follow-up operations to correct complications. Abdominal hernia was the most common complication requiring follow-up surgery, but laparoscopic techniques seem to have solved this problem. In laparoscopy, the surgeon makes one or more small incisions through which slender surgical instruments are passed. This technique eliminates the need for a large incision and creates less tissue damage. Patients who are superobese (>350 pounds) or have had previous abdominal surgery may not be good candidates for laparoscopy, however. Less common complications include breakdown of the staple line and stretched stomach outlets.
- ◆ Some obese patients who have weight loss surgery develop gallstones. Gallstones are clumps of cholesterol and other matter that form in the gallbladder. During rapid or substantial weight loss, a person's risk of developing gallstones increases.
- ◆ Nearly 30% of patients who have weight loss surgery develop nutritional deficiencies such as anemia, osteoporosis and metabolic bone disease. These deficiencies usually can be avoided with increased vitamin and mineral intake.
- ◆ Women of childbearing age should avoid pregnancy until their weight becomes stable because rapid weight loss and nutritional deficiencies can harm a developing fetus.

A recent report presented by Flum and Dellinger at the American College of Surgeons Clinical Congress on October 21, 2003, showed that 1.9% of patients die within 30 days of undergoing gastric bypass surgery.¹⁴ Long-term failure rates can reach as high as 50%, sometimes making additional surgery necessary.

Any bariatric surgery carries risks. The following are some of the risks, possible side effects and potential complications that can occur after surgery.

- ◆ Anesthesia complications
- ◆ Bleeding
- ◆ Bowel obstruction
- ◆ Changed bowel habits
- ◆ Death
- ◆ Deep vein thrombosis
- ◆ Dumping syndrome
- ◆ Excess skin
- ◆ Failure at weight loss
- ◆ Food intolerance
- ◆ Gallstones
- ◆ Hernias
- ◆ Infections
- ◆ Leaks from staple line breakdown
- ◆ Nutritional problems
- ◆ Pulmonary embolism
- ◆ Ulcer

How does one find a bariatric surgeon?

Surgeons performing gastric bypasses do not take any specific bariatric “boards” or examinations to test their knowledge and skills of the surgery. People considering bariatric surgery should ask about the surgeon’s training and credentials, board certifications and membership in organizations such as the American Society for Bariatric Surgery (ASBS) or the American College of Surgeons (ACS). Bariatric surgery should only be performed by experienced surgeons and health care teams. A surgeon should respond to all of a patient’s questions about the surgery and his or her complication rate.

How is Bariatric Surgery Performed?

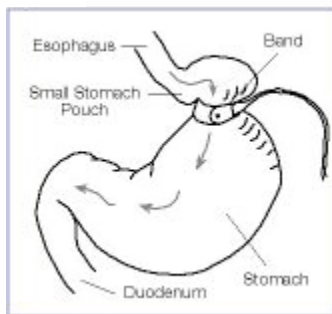
Bariatric surgery is performed using laparoscopes (laparoscopic procedures) or by laparotomy (open procedures). Laparoscopic surgery involves making small incisions and performing the operation by observation through a small camera. Open procedures require a large incision to open the abdomen.

What are the components of bariatric surgery?

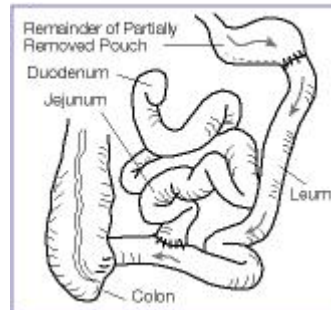
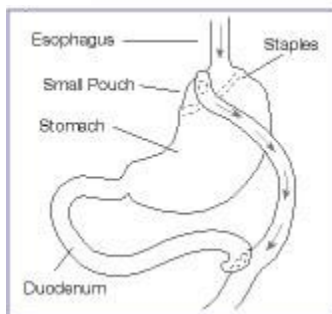
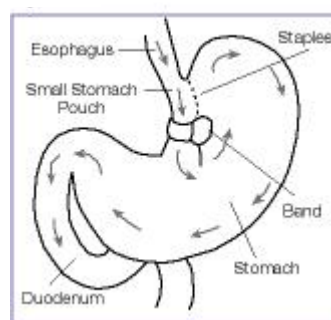
Bariatric surgery operations have one or a combination of two main components: restriction and malabsorption. The restrictive element involves restricting the flow of food through the digestive tract by closing off part of the stomach limiting the amount of food the stomach can hold at one time. The malabsorptive component in obesity surgery prevents food from being properly absorbed in the gut.

What are the different types of bariatric surgery¹⁵?

Adjustable gastric banding is a restrictive procedure where a hollow band is placed around the upper part of the stomach to create a small stomach pouch that can hold only a small amount of food and creates a narrow passage to the remaining stomach. The band can be tightened to further decrease the amount of food that can be ingested.



Vertical Banded Gastroplasty is a purely restrictive procedure with no malabsorptive effect. An artificial pouch is created using staples in a different section of the stomach. The lower, larger part of the stomach is below the band. The band connecting the two parts creates a small outlet. Food passes slowly through the outlet from the upper stomach to the lower part.



Roux-en-Y (pronounced ROO-en-why) **Gastric Bypass** has both restrictive and malabsorptive components. This procedure reduces the volume of the stomach by creating a new pouch. The pouch is attached at one end to the esophagus and at the other end to the small intestine. In the 1991 NIH consensus panel statement, the Roux-en-Y gastric bypass was identified as a procedure that could provide very good results in properly selected patients.

Biliopancreatic diversion is a malabsorptive operation, with portions of the stomach being removed. A small pouch remains, which is connected directly to the final segment of the small intestine, completely bypassing the duodenum and the jejunum. Although this procedure successfully promotes weight loss, it is less frequently used than other types of surgery because of the high risk of nutritional deficiencies.

Which type of bariatric surgery is best?

Not all patients are suitable for every type of bariatric surgery. The decision on which procedure is most appropriate for a given patient should be made after thorough discussion between the surgeon and the patient based on the patient's health status, food preferences, body type, activity level, motivation and commitment to weight loss. The decision on what procedure is best is based on a risk-benefit assessment, which weighs the probable benefits to the patient against the possible risks of the procedure.

What to expect prior to your bariatric surgery?

Bariatric surgery requires a commitment to life style change. Before surgery, patients will have a number of tests and most will be required to meet with an anesthesiologist, nutritionist and mental health professional. Many surgeons require candidates for surgery to demonstrate their commitment to lifestyle change by losing weight prior to surgery. Smokers must quit prior to surgery.

What to expect after your bariatric surgery?

For the first 2-3 weeks after surgery, patients are restricted to liquids. For the next few weeks, patients can have a diet of pureed, soft foods or protein shakes. About two months post surgery patients can tolerate solid food. High fat foods are off limits because they are hard to digest and can cause diarrhea. Eating too quickly or too much after bariatric surgery can cause nausea and vomiting as well as "dumping syndrome," a condition that occurs when undigested food passes too quickly into the small intestine, causing pain, diarrhea, weakness and dizziness.

How effective is bariatric surgery?

The National Institutes of Health cited clinical studies that show, following weight loss surgery, most patients lose weight rapidly and continue to do so for 18 to 24 months. Patients may lose up to 50% of their excess weight in the first six months and 77% of excess weight within one year of surgery. Patients were also able to maintain 50% to 60% of their weight loss 10 to 14 years after surgery.

How much does bariatric surgery cost?

The surgery and additional consultations and screenings generally cost between \$20,000 and \$35,000. Patients considering bariatric surgery should review their insurance policy to understand what insurance benefits are allowed for obesity treatment.

Do you have bariatric surgery coverage?

Each insurance company has requirements for members who are considering bariatric surgery. Individuals who are considering surgery should contact their insurance carrier and request a copy of the requirements for bariatric surgery authorization. If you have coverage, you will also want to know if your surgeon participates in your plan, if the facility where your surgeon will perform the surgery is in your plan, if you can go out-of-network, and what deductibles and co-payments you will be responsible to pay. Your insurer may require a letter of support from your primary care provider, documentation of the amount of time that you have been morbidly obese and comorbidities related to your obesity.

DEFINITIONS

BARIATRICS: The branch of medicine that deals with the causes, prevention and treatment of obesity.

BARIATRIC SURGERY: Surgery that is performed for the treatment of morbidly obese individuals. This type of surgery is also known as obesity surgery, stomach stapling and weight loss surgery.

BODY MASS INDEX (BMI): A number that is calculated based on an individual's height and weight. A BMI between 18 and 25 is considered normal. A BMI over 25 suggests that the individual is overweight, while 30-39 indicates obesity. A BMI of 40+ suggests severe or morbid obesity.

COMORBIDITIES: Medical illnesses/diseases that are either caused by or contributed to by morbid obesity. These include diabetes, high blood pressure, high cholesterol, sleep apnea and arthritis.

DUMPING SYNDROME: Rapid gastric emptying, also called dumping syndrome, happens when the lower end of the small intestine (jejunum) fills too quickly with undigested food from the stomach. "Early" dumping begins during or right after a meal. Symptoms of early dumping include nausea, vomiting, bloating, diarrhea, and shortness of breath. "Late" dumping happens 1 to 3 hours after eating. Symptoms of late dumping include weakness, sweating and dizziness.¹⁶

GASTRIC BANDING: Is a procedure where a plastic band is placed around the upper stomach, dividing the stomach into a tiny pouch above the band with the remaining stomach below.

GASTRIC BYPASS: The most common (and often most successful) bariatric operation performed in the United States. The stomach is stapled closed with a tiny remnant of stomach (the pouch) connected to the upper intestine.

GASTROPLASTY: Using staples, the stomach is divided into a small pouch above the staples with the remaining stomach below.

IDEAL WEIGHT: A concept that relates body weight to health and longevity (length of one's life) developed from life insurance statistics. Ideal weight is reflected in a BMI of less than 26.

MORBID OBESITY: A magnitude of obesity that qualifies someone for surgical treatment. Weight criteria are approximately 100 pounds or more over ideal body weight, or a BMI of 40 or higher.

MORTALITY: Refers to the death rate.

OBESITY: Obesity is defined as a BMI of 30-39.

STOMACH STAPLING: A general, generic term that is not used by bariatric surgeons because it tends to be too nonspecific. Many types of bariatric operations involve stapling the stomach.

BARIATRIC SURGERY CANDIDATE CHECK LIST: Patient Criteria

Surgical treatment for the morbidly obese must be carefully evaluated and understood by potential patients.

- Do you qualify for surgery?
 - Is your BMI over 40?
 - Is your BMI over 35 and do you have serious comorbidities?
 - Is your obesity of long standing?
 - Have you tried and failed medically supervised or other weight loss programs?

- Do you have insurance and does it cover bariatric surgery?

- Are you aware of the different types of bariatric surgery and the risks, benefits and potential complications of each type of surgery?

- Have you been informed of the risks and benefits of bariatric surgery?

- Do you understand the changes that must be made before and after surgery?

- Are you committed to making the life long changes that are necessary after surgery?

- Are you knowledgeable about the lifestyle changes you must make and are you committed to complying with long-term after-care?

BARIATRIC SURGERY CANDIDATE CHECK LIST: About the Surgeon & Hospital

Surgical treatment for the morbidly obese must be carefully evaluated and understood by potential patients.

- What types of bariatric procedures does the surgeon perform? (Laparoscopy or Open)
- How many bariatric procedures of each type (Laparoscopy or Open) does the surgeon perform per year?
- Will another doctor be assisting the surgeon? If so, what are the assistant's qualifications?
- Does the surgeon have a follow-up or after-care program in place?
- Does the surgeon offer patient support groups both pre and post surgery?
- Is the surgeon board certified, or board eligible?
- Will the surgeon be using any new instruments or equipment during the procedure?
- Is a majority of the surgeon's practice dedicated to bariatric surgery?
- How often is the procedure done at this hospital?
- Does the hospital have staff specially trained to care for bariatric patients?
- Does the anesthesiologist have extensive experience with obese patients?
- Does the hospital have specialized bariatric equipment that can accommodate a person of your weight?
 - Blood pressure cuffs
 - CT Scanner
 - Hospital Bed
 - Wheelchair
 - Commode
 - Gowns
 - Operating room table

ENDNOTES

- 1 Increases in Clinically Severe Obesity in the United States, 1986-2000, Roland Sturm, ARCHIVES OF INTERNAL MEDICINE.2003; 163: 2146-2148.
- 2 Mokdad A, Bowman B, Ford E, Vinicor F, Marks J, Koplan J. "The Continuing Epidemics of Obesity and Diabetes in the United States." *JAMA*. 2001;286(10):1195-1200.
- 3 Finkelstein, EA, Fiebelkorn, IC, Wang, G. State-Level Estimates of Annual Medical Expenditures Attributable to Obesity. *Obesity Research* 2004;12(1):18-24.
- 4 Thompson D et al. "Body Mass Index and Future Health Care Costs: A Retrospective Cohort Study." *Obesity Research*. 2001;9(3):210-2.
- 5 Citing "Dangerous Increase" in Deaths, HHS Launches New Strategies Against Overweight Epidemic, U.S. Department of Health & Human Services, March 9, 2004, press release.
- 6 U.S. Department of Health and Human Services. The Surgeon General's call to action to prevent and decrease overweight and obesity. [Rockville, MD]: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General; [2001].
- 7 World Health Organization. Physical status: The use and interpretation of anthropometry. Geneva, Switzerland: World Health Organization 1995. *WHO Technical Report Series*.
- 8 NIH Panel Makes Recommendations For Treating Severe Obesity," (March 27, 1991).
- 9 NIH, NHLBI. Clinical guidelines on the identification, evaluation and treatment of overweight and obesity in adults. HHS, PHS; 1998 Executive Summary.
- 10 Dolan K, Fielding GA. Laparoscopic gastric banding in morbidly obese adolescents. Program and abstracts of the Society of American Gastrointestinal Endoscopic Surgeons (SAGES) Annual Scientific Session and Postgraduate Course; March 12-15, 2003; Los Angeles, California.
- 11 NIH, NHLBI. Clinical guidelines on the identification, evaluation and treatment of overweight and obesity in adults. HHS, PHS; 1998. p. 23.
- 12 National Heart, Lung, and Blood Institute, First Federal Obesity Clinical Guidelines Released, Wednesday, June 17, 1998.
- 13 Gastrointestinal Surgery for Severe Obesity, National Institute of Diabetes and Digestive and Kidney Diseases National Institutes of Health Publication No. 01-4006 December 2001.
- 14 The Impact of Bariatric Surgery on Patient Survival: A Population-Based Study, presented October 21st at the American College of Surgeons 2003 Clinical Congress. E. Patchen Dellinger, MD; David R. Flum, MD, MPH.
- 15 *Gastrointestinal Surgery for Severe Obesity*. Consensus Statement, NIH Consensus Development Conference, March 25-27, 1991.
- 16 NIH Publication No. 02-4629 Rapid Gastric Emptying January 2002.



For more information about the Obesity Surgery Project,
contact:

NY Health Plan Association
90 State Street, Suite 825
Albany, New York 12207

Phone 518-462-2293

Fax 518-462-2150