

Exploring Weight Loss Surgery

Mount Sinai School of Medicine



MOUNT SINAI
SCHOOL OF
MEDICINE



Introduction

Congratulations. By picking up this booklet, you've taken an important step toward a healthier lifestyle. Learning about weight loss surgery will help you—with your doctor—identify the best method for you to lose weight and improve your health.

Most of us have seen stories of people who shed hundreds of pounds after weight loss surgery, also known as bariatric surgery. But this medical procedure is not a magical cure. It is a life-changing operation that should only be performed after all other attempts at weight loss have failed.

This guide covers the basics of weight loss surgery. It describes the different procedures available. It explains how these operations work. And it offers guidelines for determining if surgery is right for you. This book describes the changes needed to maintain weight loss after surgery and what to expect if you and your doctor decide to pursue bariatric surgery.

The Mount Sinai Program for Surgical Weight Loss in New York offers one of the oldest bariatric surgery programs in the Northeast. Chief of Bariatric Surgery Dr. Daniel Herron has specialized in minimally invasive weight loss surgery since 1999, when the procedures first began to gain popularity. He and Dr. Subhash Kini, supported by an integrated team designed to meet the entire spectrum of patient needs, uphold the highest standards of patient care. For more information, visit our website at www.SurgicallySlim.com.

Let's get started.

Obesity and Related Health Risks

According to the Centers for Disease Control and Prevention (CDC), 30 percent of American adults over age 20 are obese—having a Body Mass Index (BMI) of 30 or greater. (BMI represents a person’s weight adjusted for height.)

Obesity has received extensive press in recent years for several reasons.

One, the disease is becoming more common. In the last 20 years, obesity has increased significantly among American adults and children. This trend has also produced a rise in chronic diseases linked to obesity, such as diabetes, cardiovascular disease and cancer.

Another, more recent development that has produced a lot of news coverage has to do with obesity treatment: specifically, weight loss surgery. Surgical procedures to promote weight loss have been around for 40 years. But they have only become common in the last five, increasing from 14,000 procedures per year to more than 140,000 per year.

Why the sudden change?

The main reason for the surge in weight loss surgery comes from advancements in minimally invasive, laparoscopic surgical techniques. Using a very small incision, doctors can now see the inside of the body with a special camera, a laparoscope. The camera is inserted through a narrow port—only 1/2 inch wide—and it allows the surgical team to see inside the abdomen. The technology lets the doctor operate through a series of small laparoscopic ports, rather than one large incision.

The result: shorter hospital stays, less pain and fewer problems.

Another factor that has helped the bariatric surgery boom is the procedure's acceptance by the insurance industry as medical treatment. Often, insurance providers now cover weight loss surgery because of the health benefits patients can gain.

*“...30 percent of American adults
over the age of 20 are obese...”*

Obesity is not a cosmetic problem. Studies have linked excessive weight to a number of debilitating and fatal diseases, including the following:

Diabetes

Studies have shown a strong link between diabetes and excessive weight. In fact, 80 percent of people diagnosed with Type 2 diabetes are overweight. And the disease has become more common in recent years—correlating with the nation's rise in obesity.

Heart disease and stroke

Excess weight strains the heart and the overall cardiovascular system. Consequently, obese patients are more likely to have high blood pressure or an enlarged heart. A diet high in fat and cholesterol can also cause dyslipidemia—abnormal blood levels of fatty substances, such as triglycerides and cholesterol. Both high blood pressure and dyslipidemia are risk factors for heart disease and stroke, the leading cause of death in the United States. Reducing body weight by five to 15 percent can greatly decrease an obese person's risk of developing heart disease or experiencing a stroke.

Cancer

Cancer is the second leading cause of death in the United States. Obesity may increase a person's chance of developing certain forms, such as cancers of the colon, esophagus and kidney.

Sleep apnea

Many overweight people suffer from this condition, in which a person stops breathing for short periods while sleeping. The interrupted sleep pattern can disrupt an individual's waking life, producing daytime sleepiness, concentration problems and even heart failure. Some weight loss surgery programs offer sleep clinics to evaluate candidates that suffer from this condition.

Osteoarthritis

A common joint disorder, osteoarthritis describes the condition in which joint bone and cartilage wear away. The disease typically affects the knees, hips and lower back. Excess weight may contribute to osteoarthritis because of the extra pressure on the joints.

Fatty liver disease

While many people associate liver disease with alcohol abuse, more liver disease cases result from obesity. Fat builds up in the liver cells, where it can cause swelling and severe injury—including cirrhosis and liver failure.

In many cases, patients who have weight loss surgery show much improvement from these related conditions. In fact, some of these health issues disappear entirely after the weight loss.

“Obesity is not a cosmetic problem.”

“Surgery is a body- and life-changing procedure.”

Realistic Expectations

Weight loss surgery has been wonderful for many people, but it is not an instant fix.

Following are some things to remember as you learn more:

- Surgery is a body- and life-changing procedure. You should only have the operation after trying other methods of weight loss.
- Long-term success depends on commitment. You will need to eat less and exercise more after surgery to keep the weight off. Also, you may need to take vitamins or supplements for the rest of your life to maintain proper nutrition.
- The weight loss happens quickly, but not overnight. Most patients lose weight steadily during the first 18 months after surgery.
- Surgery does not guarantee losing all your excess weight. Patients typically lose between one-half and three-quarters of their excess weight.

The Digestive Process

Before learning how surgery changes the digestive system, you should understand how everything works normally.

Digestion begins when food enters the body through the mouth and slides into the esophagus. Next, it moves to the stomach, which acts as a holding tank. Food then passes to the small intestine, where most digestion takes place.

The food travels through roughly twenty feet of small intestine. Here, it mixes with enzymes and digestive juices, and the useful parts are absorbed into the bloodstream. By the time food passes into the large intestine, the body has already taken the nutritional content. The large intestine prepares the remaining waste material to exit the body.

The Mechanics of Weight Loss

Weight loss ultimately comes down to one basic principle: burn off more calories than you consume.

The principle is simple. Putting it into practice is not.

Everyone's body metabolizes food at a different rate. As a result, a person's weight relies on two separate factors: heredity and behavior. Scientists still do not know which factor has the dominant role. Estimates for the influence of genetics range from as little as 30 percent to as high as 70 percent—a significant spread.

People cannot choose the metabolism they inherit from their parents, but they can modify it—or at least manage it—through behavior.

Following are the most common methods of weight loss:

- **Diet.** Dieting is the simplest means of losing weight. Unfortunately, for people who need to lose more than 50 pounds, dieting works very poorly. Most individuals who lose weight through dieting ultimately regain all the weight they've lost—and sometimes more.
- **Exercise.** More physical activity demands more energy. Exercise not only helps use the energy produced in digestion, but it also draws upon the energy reserves in fat cells. Certain types of exercise, such as strength training, can speed up the metabolism by building muscle, which uses more energy than fat.
- **Medication.** The market offers several pharmaceutical options, which usually either suppress a person's appetite or boost the metabolism. Scientific research has not demonstrated the long-term effectiveness of these diet pills. Also, some weight loss medications have been withdrawn due to a high incidence of cardiovascular problems.
- **Weight loss surgery.** Weight loss surgery permanently—in most cases—alters the digestive process to reduce the amount of food energy absorbed into the body. Because the operation changes the body for the rest of a person's life, it should only be considered after using other weight control methods.

Weight loss surgery: A life-long change

Diet and exercise are the healthiest ways to lose weight, but a lot of people simply cannot maintain significant weight loss with these methods. For such individuals, surgery offers a way to shed much of their excess weight, which greatly reduces health risks and increases overall quality of life.

Choosing this option requires a commitment to life-long change, including a restricted diet, nutritional supplements and regular physical activity.

Your relationship to food will never be the same again.

Not only that, but your other relationships will likely undergo dramatic changes as well: including your relationships with those you are closest to and even your relationship with yourself.

Clinical Nutritionist Amy Fleishman, RD, and Nurse Practitioner Jennifer Nalle are two of the team members at Mount Sinai who will walk you through every step of this process. Dr. Herron and Dr. Kini will also help you make an educated decision that is right for you.

How it works

Each type of weight loss surgery works differently, using one or more of three mechanisms: restriction, malabsorption and hormonal changes.

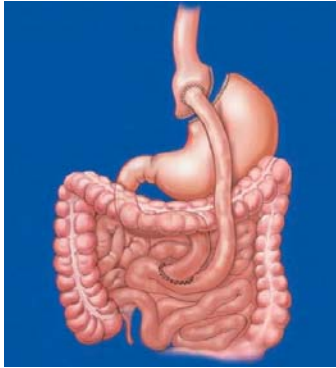
With restriction, the surgeon limits the amount of food that a patient can eat by reducing the size of the stomach—or limiting the part of the stomach that stores food. The individual can only eat very small servings. Taking in fewer calories than the body needs forces it to use other fuel sources, such as the energy stored in fat.

Malabsorption limits the amount of food absorbed by the body. Food bypasses part of the small intestine and goes "unused" into the large intestine, where it is packaged to leave the body.

The surgery often causes hormonal changes, which can reduce the amount of hunger-causing hormones. Patients feel full after eating less, which helps decrease overeating.

Types of operations

The three most common procedures are the Roux-en-Y gastric bypass, the Lap Band®, and the biliopancreatic diversion, often combined with a duodenal switch.



Roux-en-Y gastric bypass

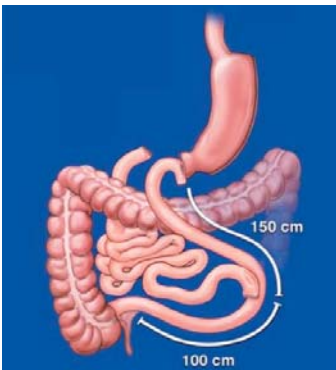
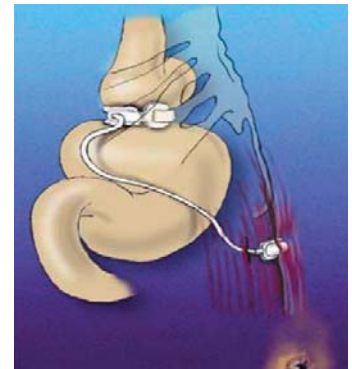
The most popular operation is the Roux-en-Y gastric bypass. Using a combination of surgical staples and sutures, the surgeon creates a small pouch in the upper portion of the stomach. This pouch is connected directly to a segment of small intestine called the “Roux limb,” which connects to the rest of the intestine in a Y-shape. The small pouch limits how much food the patient can eat, and food bypasses between three to five feet of the small intestine, which reduces absorption. The entire length of small intestine remains in the body, and it continues to produce enzymes and other juices that help the digestive process.

Patients who have this procedure typically lose 50 to 75 percent of their excess weight.

The Lap Band®

Another common procedure, installation of a Lap Band® relies on restriction alone for weight loss. The surgeon wraps this device around the upper part of the stomach, creating a small stomach pouch. This pouch fills quickly, limiting how much patients can eat. After the operation, the surgeon can adjust the amount of restriction by injecting saline solution into a small access port located under the skin.

People who get the Lap Band® often lose 40 to 50 percent, or more, of their excess weight.



Biliopancreatic diversion with duodenal switch (BPD-DS)

This operation is the most extensive and least common of the three operations. First, the doctor cuts away a large part of the stomach and leaves a small, narrow pouch that is the size and shape of a banana. Next, he bypasses a large amount of small intestine. Again, the entire intestine remains in the body, but food only passes through a short part. This procedure involves less restriction than gastric bypass, but greater malabsorption.

Similar to the gastric bypass, patients usually lose between 50 to 75 percent of their excess weight.

Dr. Herron and Dr. Kini perform all three procedures. They work closely with each individual to determine the best option for him or her.

* The Lap Band image courtesy of the American Society for Bariatric Surgery. Roux-en-Y and BPD-DS images © Mount Sinai.

Potential complications

Weight loss surgery is a major operation, performed under general anesthesia. All of these operations carry a risk for potential complications. As with any major surgical procedure, patients face a small chance of experiencing:

- Anesthetic complications
- Wound infection
- Fever
- Blood clots in the legs or lungs
- Respiratory problems, such as pneumonia
- Cardiac problems, such as heart attacks or arrhythmias (irregular heart rhythms)

Potential complications specific to weight loss surgery include the following:

- Problems with bowel function, such as diarrhea, constipation and/or gas pain
- Internal hernia, a condition in which intestine enters and becomes trapped in a space inside the abdominal cavity
- Dehydration
- Malnutrition problems
- Recurrent nausea and vomiting
- Internal bleeding
- Leaks or blockage at a site where tissues are sewn or stapled together (anastomosis)

Because weight loss surgery is a major procedure, the risk of death is not zero, but it is substantially less than 1%. Dr. Herron or Kini will be able to discuss your specific risks after reviewing your medical history and evaluating the results of pre-operative tests.



“...surgery offers a way to shed much of the excess weight, which greatly reduces health risks and increases overall quality of life.”

Choosing surgery

Qualifications

According to the guidelines issued by the National Institutes of Health, candidates for weight loss surgery must have:

- A BMI of 40 or more, which usually translates to about 100 pounds of excess weight; or
- A BMI of at least 35, with two or more life-threatening illnesses, or comorbidities, such as Type 2 diabetes or cardiovascular disease.

Use this chart to determine your BMI.

Height (in inches)	Weight						
	167 – 190	191 – 214	215 – 238	239 – 262	263 – 286	287 – 310	311 – 338
58"	167 – 190	191 – 214	215 – 238	239 – 262	263 – 286	287 – 310	311 – 338
59"	173 – 197	198 – 221	222 – 246	247 – 272	273 – 296	297 – 321	322 – 351
60"	179 – 203	204 – 229	230 – 254	255 – 281	282 – 306	307 – 332	333 – 363
61"	185 – 210	211 – 237	238 – 263	264 – 290	291 – 317	318 – 343	344 – 375
62"	191 – 217	218 – 245	246 – 272	273 – 300	301 – 327	328 – 355	356 – 387
63"	197 – 224	225 – 253	254 – 281	282 – 310	311 – 338	339 – 366	367 – 400
64"	204 – 231	232 – 261	262 – 290	291 – 320	321 – 349	350 – 378	379 – 413
65"	210 – 239	240 – 269	270 – 299	300 – 330	331 – 360	361 – 390	391 – 426
66"	216 – 246	247 – 277	278 – 308	309 – 340	341 – 371	372 – 402	403 – 439
67"	223 – 254	255 – 286	287 – 318	319 – 350	351 – 382	383 – 414	415 – 453
68"	230 – 261	262 – 294	295 – 327	328 – 361	362 – 394	395 – 427	428 – 466
69"	236 – 269	270 – 303	304 – 337	338 – 372	373 – 406	407 – 439	440 – 480
70"	243 – 277	278 – 312	313 – 347	348 – 383	384 – 417	418 – 453	454 – 494
71"	250 – 285	286 – 321	322 – 357	358 – 394	395 – 429	430 – 465	466 – 508
72"	258 – 293	294 – 330	331 – 367	368 – 405	406 – 442	443 – 478	479 – 523
73"	265 – 301	302 – 339	340 – 377	378 – 416	417 – 454	455 – 492	493 – 537
74"	272 – 310	311 – 349	350 – 388	389 – 428	429 – 466	467 – 505	506 – 552
75"	279 – 318	319 – 358	359 – 398	399 – 439	440 – 479	480 – 519	520 – 566
BMI	35 – 39.9	40 – 44.9	45 – 49.9	50 – 54.9	55 – 59.9	60 – 64.9	65 – 70.9

In addition, candidates must be healthy enough to represent a reasonable surgical risk. Both Dr. Herron and Dr. Kini obtain thorough medical histories and order extensive tests to help ensure patient safety. As discussed above, all major surgical procedures carry a small possibility of potential complications. The pre-operative tests scheduled by the Mount Sinai team will help determine if you have any medical conditions that could rule out surgery.

Insurance

Weight loss surgery is not cosmetic surgery. The procedures correct a severe, life-threatening problem. As a result, many insurance companies cover weight loss surgery. Each plan is different, however, and each patient needs to know the details of his or her insurance plan. The Mount Sinai Program for Surgical Weight Loss has an insurance specialist, Garry Booker, who guides patients through the insurance certification process and increases their chances of approval. Garry also discusses with patients how much money they will have to pay.

If you are thinking about weight loss surgery, consult with your primary-care physician. He or she can work with the Mount Sinai team to provide the necessary documents to process a request for insurance coverage.

For more information about insurance coverage, visit the website for the Mount Sinai Program for Surgical Weight Loss, www.SurgicallySlim.com. Or call our office at (212) 241-5339 and speak with Dorothy Lee to schedule an appointment.

Commitment

Potential patients need commitment to succeed. The operations forever change the amount and types of food patients can eat. People who have had weight loss surgery must take nutritional supplements for the rest of their lives, and they need to exercise to keep the weight off.

They also need to commit to life-long follow-up with their surgical team, who will help ensure the success of the procedure.

The operations can carry side effects. These can range from the need for plastic surgery to psychological issues related to the physical changes.

Support

The challenges of weight loss surgery can be overwhelming without a support network. In the beginning, the patient may experience fear and anxiety after deciding to pursue surgery. Pre-operative jitters are normal. It helps to have a close friend or confidant to share these emotions with.

Even if a person does not have a family member or close friend that he or she wants to confide in, emotional support is available through several sources. The Internet hosts many online communities where people who have had weight loss surgery and those who are considering it share their experiences and concerns. They vent their frustrations and cheer each other on. Also, the Mount Sinai program hosts a free monthly support group, where patients can raise questions and voice personal issues in a friendly, supportive environment.



Nurse Practitioner Jennifer Nalle leads a pre-operative information session for weight loss surgery patients.

Selecting a Surgeon

Once a person has decided to undergo weight loss surgery, he or she needs to consider several factors in choosing a surgeon.

Experience

A study published in the April 2005 issue of the Archives of Surgery indicates that complications associated with gastric bypass surgery may decrease significantly with experience. Given the complexities of the surgical procedure and the increased health risks faced by morbidly obese people, the study suggests that patients can minimize surgery-related complications by seeking treatment at a specialized center where the surgeons have extensive experience in performing the operation.

Board certification

Certification by the American Board of Surgery demonstrates that a physician has completed a training program accredited by the board. The process also requires a surgeon to pass both written and oral examinations that test surgical competency. To maintain active certification, physicians must successfully complete a written exam every 10 years.

ASBS membership

Founded in 1983, the American Society for Bariatric Surgery (ASBS) promotes excellence in bariatric surgery by holding members to high standards, designed to provide quality assurance and to promote continuous innovation in treatment. The society encourages members to pursue clinical and laboratory research, to exchange ideas and experience among peers, to promote guidelines for ethical patient selection and care, and to develop educational programs for physicians, paramedical persons and the general public.

Multi-disciplinary approach

Bariatric surgery affects more than a patient's digestive tract; it touches almost every aspect of his or her life. Mount Sinai takes a comprehensive, team-based approach that makes the surgical process as seamless as possible. Medical specialists in a variety of disciplines—including cardiology and pulmonology in addition to psychiatry and nutrition—are available to manage the wide range of health issues related to weight loss surgery.

Hospital facilities

Weight loss surgery patients have special needs, and the hospital they choose for their procedure should understand and support these needs. For instance, anesthesiologists and nurses at Mount Sinai have experience in managing severely obese patients. Likewise, the hospital has special equipment—such as wheelchairs, beds, gowns, etc.—to accommodate bariatric patient needs.

Dr. Daniel Herron works closely with patients to ensure the long-term success of their operation.



Nurse Practitioner Jennifer Nalle and Clinical Nutritionist Amy Fleishman, RD, help patients manage their nutritional needs.

Expert care at Mount Sinai

The surgeons and staff members of the Mount Sinai Program for Surgical Weight Loss offer a program that fulfills all of these requirements. We offer a unique, integrated approach that meets the entire spectrum of patient needs.

After confirming eligibility for weight loss surgery, we provide candidates with a detailed checklist of everything needed for insurance approval. The thoroughness of our insurance specialists results in fewer coverage denials for our patients.

We encourage all prospective patients to attend support-group sessions so they can learn firsthand about the experiences of others who have had the surgery. These groups help individuals set realistic expectations for this life-altering procedure, while providing free ongoing support for patients.

The Mount Sinai team includes psychiatrists, a nurse practitioner, a nutritionist and medical assistants—all experienced in working with people who have had weight loss surgery. This team, which also includes renowned specialists in gastroenterology, cardiology and pulmonology, enables us to expertly manage the wide range of health issues related to weight loss surgery.

For more information, visit us online at www.SurgicallySlim.com, or call (212) 241-5339 to schedule an appointment today.



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