

Weight loss surgery at BIDMC

General Information

What is obesity? How can weight loss surgery help?

In recent years, we have slowly begun to understand obesity as a disease – a chronic disease that requires medical attention. We now believe that obesity is a complex condition with genetic, environmental, cultural, and psychological causes. It is a mistake to “blame” extreme obesity on a simple lack of willpower. In the United States alone, obesity affects one in five individuals in the general population. For many people with this devastating illness, diets alone rarely, if ever, produce lasting results.

For people with the most extreme forms of obesity, weight loss surgery may offer hope of significant, lasting weight loss. The surgery provides the extra help that many people with extreme obesity need. It creates changes in the digestive system that help patients alter their eating habits. This becomes part of a comprehensive, life-long health plan that includes other components such as regular exercise, healthy food choices, and close, ongoing monitoring by members of a health care team.

Do I have severe obesity?

Surgical treatment for obesity is not for everyone who is overweight. It is usually reserved for people who have so-called “severe obesity.”


We use a tool called body mass index (BMI) to measure the level of obesity. You can use the chart on the next page to find your BMI (if it is above 35).

To use the BMI chart:

Find your height, in inches, in the left column. Move across and find a weight closest to your own. If your weight is lower than all the values shown next to your height, your BMI is less than 35. If you find a weight close to yours in the row next to your height, the number at the top of that column is your BMI.

Examples:

- Someone who is 66 inches tall and weighs 309 pounds has a BMI of 50.
- Someone who is 72 inches tall and weighs 250 pounds has a BMI of less than 35.

 For more information, call:

617-667-2845

BMI chart, for BMI 35-54

BMI	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Height (inches)	Body Weight (pounds)																			
58	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
59	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
60	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
61	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285
62	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295
63	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304
64	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
65	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
66	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
67	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
68	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354
69	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365
70	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376
71	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386
72	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397
73	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408
74	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420
75	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431
76	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443

What does the BMI number mean?

The BMI takes both height and weight into account, so it gives a more accurate picture of body size than weight alone. In general, we use the following categories of BMI when we talk about body weight:

- Underweight = BMI less than 18.5
- Normal weight = BMI between 18.5 and 24.9
- Overweight = BMI between 25 and 29.9
- Obesity = BMI of 30 or greater
 - Class I Obesity = BMI 30-35
 - Class II Obesity = BMI 35-40
 - Class III Obesity = BMI greater than 40

In our program, we use the BMI to help us decide if someone might benefit from weight loss surgery. The surgery is not usually performed on someone with a BMI of less than 40, though there are important exceptions. For example, if there are serious medical problems related to weight, the surgery may be considered in someone with a BMI between 35 and 40. *(The surgery is not done on anyone whose BMI is less than 35.)*

If you'd like a precise measure of your BMI, go to www.nhlbisupport.com/bmi and use the BMI calculator on line. Or use this formula to calculate your own BMI:

BMI = weight in pounds x 705/height in inches squared

1. What is your weight in pounds? Write your answer _____
2. Multiply your answer in #1 by 705. Write your answer _____
3. What is your height in inches? Write your answer _____
4. Multiply the answer in #3 by itself. Write your answer _____
5. Divide the answer in #2 by the answer in #4. This is your BMI.

Why is it so important to treat severe obesity?

Obesity is now the second leading cause of preventable death in the United States. The only preventable condition that kills more people than obesity is cigarette smoking. It is estimated that about 300,000 people a year die from obesity and obesity-related disease.

Extremely obese people have a shorter lifespan than non-obese people. Medical conditions associated with obesity include diabetes, high blood pressure, heart disease, sleep apnea, stroke, arthritis, and several types of cancer. Psychological effects can be equally devastating and include shame, guilt, and depression.

What is weight loss surgery?

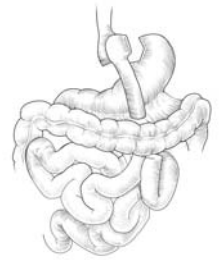
Weight loss surgery changes the way your digestive system works by closing off parts of the stomach. Making the stomach smaller means that you feel full after eating a small amount of food. Operations that reduce stomach size are known as *restrictive operations* because they restrict the amount of food the stomach can hold.

Some operations combine restriction with a partial bypass of the small intestine (the intestines are where food and nutrients are absorbed into the body). By creating a detour around part of the intestine, less food is absorbed. Operations that use this mechanism to enhance weight loss are called *malabsorptive operations*.

There are a number of different restrictive and malabsorptive operations being done. Two are done at Beth Israel Deaconess Medical Center and are described in this brochure. Three additional surgeries are not done at Beth Israel Deaconess. These are the vertical banded gastroplasty (stomach stapling, a restrictive operation), the biliopancreatic diversion (a malabsorptive operation), and the duodenal switch (a malabsorptive operation). Information on these procedures can be found at: <http://win.niddk.nih.gov/publications/gastric.htm>.

Roux-en Y gastric bypass

The most commonly performed gastrointestinal weight loss surgery performed in the US is the Roux-en Y Gastric Bypass (RYGB). There are currently two surgical approaches possible for this procedure. In a traditional or “open” RYGB, a large incision is made into the abdomen in order to perform the surgery. When the laparoscopic technique is utilized, several small incisions are made in the abdomen. A laparoscope connected to a video camera is inserted through the incisions. The physician is then able to perform the procedure assisted by viewing the internal organs on a television monitor.



In both open and laparoscopic Roux-en-Y bypass, the stomach is divided creating a small pouch, which is closed by several rows of staples. The remaining portion of the stomach is not removed but is “bypassed” and plays a diminished role in the digestive process. A Y-shaped portion of the small intestine is then attached to the pouch. The volume the pouch is capable of holding is approximately one ounce. Weight loss occurs as a result of reduction of calories, alteration in gut appetite hormones, and decreased nutrient absorption.

The Roux-en-Y bypass is considered the “gold standard” for weight loss surgery. Proven benefits identified with both the open or laparoscopic technique include:

- significant weight loss
- improvement in obesity related health problems (i.e. cardiovascular disease, hypertension, type 2 diabetes, etc.)
- reduction in patient mortality

Compared to the open procedure, when the laparoscopic approach is utilized, the post-operative recovery is shorter and the patient is less likely to develop certain complications (e.g. hernia). *However*, laparoscopic surgery is technically more complex, and it is extremely important that highly trained, qualified laparoscopic weight loss surgeons perform the procedure.

As with all surgical procedures, there are some risks associated with bariatric surgery. Complications, which may occur with the Roux-en-Y Gastric Bypass, include:

- stomal obstruction (5-15% of patients)
- postoperative bleeding (1-5% of patients)
- small bowel obstruction (1-3% of patients)
- gastrointestinal leak (1-3% of patients)

- deep vein thrombosis (1-2% of patients)
- splenectomy (1% of patients)
- pulmonary embolus (0.5% of patients)
- death within 30 days (0.5-1% of patients)
- protein-calorie malnutrition (<1% of patients)

The LAP-BAND® procedure

An additional technique, which has been performed in the US since 2001, is the laparoscopic adjustable gastric band procedure. (LAGB). During this procedure, several small incisions are made in the patient's abdomen, and using a laparoscope for guidance, the surgeon places an adjustable band around the upper portion of the stomach. The band is connected to a reservoir, which the surgeon can tighten or loosen, by the infusion of varying amounts of a salt solution. Weight loss occurs because the newly created upper pouch will only allow the patient to consume small amounts of food at a time.



LAGB has been shown to produce short-term weight loss. Since the procedure has only been available since 2001, the effect on long-term weight loss will continue to be monitored. This procedure is less invasive, fewer complications are seen, and patients experience an improvement in obesity related health issues. The surgeon and the patient will determine the type of weight loss surgical procedure that is suitable for each individual.

Complications, which may occur with LAGB surgery, include:

- slippage of the band (2-3% of patients)
- band erosion (1% of patients)
- port infection (1% of patients)
- injury to adjacent organs (0.5% of patients)
- death within 30 days (< 0.5% of patients)

When looking at the risks associated with weight loss surgery, it is important to remember that obesity itself carries a high risk of mortality due to obesity related illnesses. For many patients the potential risks from not having the surgery may be greater than the risks from possible complications of having the procedure.

Artwork reprinted from Schneider B, Jones DB, and Provost D "Obesity Surgery: Roux-en-Y and Gastric Band Procedures," in DB Jones, JS Wu, & NJ Soper (Eds), Laparoscopic Surgery: Principles and Procedures, 2004, pages 553-567, by courtesy of Marcel Dekker, Inc.

More information on complications

The overall risk of complications is about 10%. There risk of death is small but varies based on your general health. As stated above the national risk of death is about 1% or less. If you decide to proceed with surgery, your doctor will explain the general risks of abdominal surgery, as well as the specific risks associated with the procedure you will be having. Your individual risk depends on your age, gender, and your overall health.

Here are some more details and specifics:

- **General complications:** Weight loss surgery carries many of the same risks as any other abdominal operation. These include: dehydration, wound problems, difficulty swallowing food, infections, nausea, deep vein thrombosis (blood clots), and bleeding.
- **Abdominal hernias** – Hernias are one of the most common complications of the *open* gastric bypass. Hernias occur in at least 10-20% of patients, and require additional surgery to correct (at a later time).
- **Narrow stoma or stomal obstruction** – Weight loss surgery creates a small opening called a stoma leading out of the “new” stomach. Sometimes, the stoma narrows to the point where food cannot get through. If this happens after the LAP-BAND® procedure, the band may be adjusted. If it occurs following gastric bypass, it can usually be corrected without surgery using an outpatient procedure called endoscopy. In this procedure a small balloon is used to stretch the opening.
- **Gallstones** – During rapid weight loss, a person’s risk of developing gallstones is increased. Gallstones can develop in more than 1/3 of obese patients who have gastric bypass surgery. Gallstones are clumps of cholesterol and other matter that form in the gallbladder. Medications such as Ursodiol (Actigall), when taken for 6 months following surgery, can reduce the chance of gallstone formation.
- **The “dumping syndrome”** – This can be a very unpleasant side effect of gastric bypass surgery. (It does not occur with the LAP-BAND® procedure.) However, it does not occur in all bypass patients and it can be controlled by avoiding fatty foods and those high in simple sugars. Dumping syndrome is one of the factors that encourage gastric bypass patients to eat more healthily, helping to enhance weight loss. Dumping syndrome occurs when foods high in simple sugar and fat enter the small intestine very quickly. This causes the release of hormones, which can cause a group of symptoms including dizziness, heart palpitations, sweating, nausea, vomiting, cramps, and/or diarrhea.

- **Vitamin/mineral deficiency** – All weight loss surgery patients require vitamin and mineral supplements **for life** due to the significant reduction in food intake. Patients after gastric bypass are at higher risk of developing certain vitamin and mineral deficiencies (i.e. calcium, iron, folate, and vitamin B12). Requirements may vary depending on lab results, type of surgery, and tolerance of the supplements. Your dietitian will advise you on what supplements are best for you. Most vitamin and nutrition deficiencies can be avoided with regular monitoring of blood tests and the appropriate intake of these supplements.
- **Leakage of stomach or intestinal contents** – This is a serious but rare complication of gastric bypass surgery. Sometimes the areas of the stomach and intestine the surgeon connected during the bypass operation leak. If this happens, another operation may be needed to correct the problem.
- **Problems related to the band** – In the LAP-BAND® procedure, problems related to the band itself may occur. The band may move from its original position (band slippage or band prolapse), or it may cause damage or tears in the wall of the stomach (band erosion). Dilation or stretching of the esophagus, leaks in the band or its tubing, and infection can also occur.

As noted above, other complications or failure to achieve desired weight loss may occur. With the LAP-BAND® procedure, complications sometimes lead to the LAP-BAND® being revised or removed. Ask your doctor to explain more about complications associated with your specific operation.

Isn't this a drastic way to lose weight?

Weight loss surgery is a major decision. It is not a quick fix and requires a lifelong commitment to diet, exercise, and medical follow-up. This surgery is a consideration only for patients who meet strict clinical criteria.

Obesity and obesity-related illnesses such as hypertension, type 2 diabetes, stroke, cardiovascular disease, and several forms of cancer are increasing at alarming rates in the US. Following weight loss surgery, patients experience improvement in obesity-related illnesses, and the risk of early death is diminished. For seriously obese patients who have been unsuccessful in non-surgical weight loss methods such as diets, medications, behavior modification, or exercise programs, weight loss surgery may be a life-saving intervention. That is, for many patients, the risks of remaining obese are more significant than the risks of problems from weight loss surgery.

How would weight loss surgery help me lose weight?

Both the gastric bypass and the LAP-BAND® procedure produce a number of changes in how your body digests food. These changes, in combination with an overall plan of diet and exercise, can increase your chances of losing weight.

These operations help you lose weight in a number of ways:

- **Small stomach** – Both operations give you a new, small “pouch” that serves as your stomach. A much smaller stomach means it takes a much smaller amount of food to make you feel satisfied.
- **Delayed emptying of stomach pouch** – Because of the small opening connecting the stomach pouch to the rest of the digestive system, food moves through the system very slowly after it is eaten, meaning you usually don’t feel hungry soon after eating.

The gastric bypass operation has additional effects, including:

- **Hormone changes** – Your body makes hormones that contribute to your feeling full after a meal. The changes in the way food enters the intestines after surgery affects these hormones, which may also help you feel full for a longer period. Hormone changes are also responsible for the “dumping syndrome” – a unique effect of the gastric bypass operation that helps you avoid consuming foods high in sugar.
- **Decreased absorption of food** – Because the stomach is smaller and the small intestine is somewhat shorter after this surgery, there may be a decrease in the number of calories that are absorbed into the system after a meal.

How much weight will I lose if I have the operation?

The rate and amount of weight loss is different for everyone and depends in part on the type of surgery you have, your food choices following surgery, and how much exercise you get following your operation. Patients usually lose approximately 50% to 70% of their **excess** body weight. For most patients, this means losing about 1/3 (33%) of their overall body weight. It takes about 1-2 years to lose this amount of weight following gastric bypass and up to 5 years following the LAP-BAND® procedure.

Most patients who have a gastric bypass lose weight rapidly right after surgery – up to six pounds per week at first. A somewhat slower rate of loss continues for 12-24 months in most cases.

Patients who have the LAP-BAND® procedure lose weight more gradually. The goal following this surgery is to lose around 1 to 2 pounds a week. The rate of weight loss is not always steady.

No weight loss is guaranteed, and weight regain is possible, especially if a healthy lifestyle is not maintained. All patients need to follow a sensible nutrition plan and get regular exercise to maintain weight loss long term.

Remember, our goal in performing this surgery is to help you get rid of the excess body weight that puts you at risk for serious medical problems. **The goal is not to make you thin.** Some people believe that after weight loss surgery, they should be able to reach the extremely low (and sometimes unhealthy) body sizes that are emphasized in our society. Although some patients do achieve a BMI of 25 or less after this surgery, most **patients will remain overweight after surgery by the BMI criteria described above.** It's important that you do not have unrealistic expectations about what can be achieved through this surgery. We encourage our patients to focus primarily on how they feel and the steps they can take to improve their overall physical and emotional health, rather than focusing on body appearance. By participating in our support groups, paying careful attention to nutrition and exercise, and using vitamins and/or supplements as prescribed, most patients in our program are pleased with the weight loss they are able to achieve.

What happens to my skin once I lose so much weight?

There are many factors, such as age and amount of weight lost, that will impact the degree of excess skin after WLS. Common body areas affected after WLS can include: stomach, torso, upper arms, breasts, and thighs. Plastic surgery may be considered after your weight loss has stabilized for approximately one year. It is important to understand that plastic surgery cannot reverse all the changes to skin caused by skin stretching. Plastic surgery is usually only covered by insurance if it is done for health reasons such as skin rashes, ulcers, and persistent infections; insurance does not usually cover the surgery if it is done for an improved appearance.

I've heard I can lose my hair after the surgery!?

Hair loss may occur after WLS and is typically noticed approximately 3 to 6 months after surgery. Fortunately, the hair does not come out in clumps; it is more of a thinning and it is usually temporary. Meeting your protein goals (at least 60 to 80 grams of protein per day), taking your multivitamin with mineral supplements, and adding heart-healthy fats (i.e. fatty fish, canola, soybean oil) can help minimize hair loss.

What factors would be considered in deciding if weight loss surgery is right for me?

As noted above, most patients who enter our program have a BMI of 40 or greater. Other factors that suggest surgery may be a good option include:

- body weight at least 100 pounds above or 100% above ideal weight
- serious medical conditions related to weight, such as diabetes, sleep apnea or heart disease. (If these are present, surgery may be considered if the BMI is between 35 and 40.)
- age between 18 and 65 years (with some exceptions)
- a long history of obesity, with many failed attempts at weight loss

- no current issues with drug or alcohol abuse
- no serious psychiatric illness, such as problems that would impair someone's ability to follow a program of lifetime diet management and follow-up

Contraindications to surgery

There are some circumstances where the risk of the surgery may outweigh the potential benefits. For example, weight loss surgery may be contraindicated for patients with severe pulmonary disease, unstable coronary artery disease, and other conditions which may seriously compromise anesthesia or wound healing. Women who are pregnant, planning to become pregnant within two years, or are currently breastfeeding would not be considered for WLS. Additionally patients, who are unable to understand basic principles of the procedure or follow postoperative instructions would not be considered as suitable candidates.

Here at BIDMC, we also require our patients to abstain from illegal substances for a minimum of six months prior to surgery.

What kind of diet must I follow after surgery?

It is important to understand that **all patients who have weight loss surgery must be committed to following a carefully prescribed program of nutrition and exercise.** This is a **lifelong commitment** designed to help you achieve and maintain weight loss as safely as possible. Because the surgery changes your digestive system, it is important to make sure you select the right foods and fluids in the appropriate amounts to ensure proper nutrition following the operation. There are also many eating techniques one must learn to aid in digestion (i.e. eating slowly and chewing thoroughly).

There are five diet stages after surgery. As a general rule, you will do best if you avoid foods high in sugar & fat and eat foods that contain high-quality protein. A very brief description of the five diet stages is given here.

- **Stage 1** is sips of water only.
- **Stage 2** is clear liquids that are low-sugar, non-carbonated, and decaffeinated.
- **Stage 3** consists of high-protein, low-fat, and low-sugar modified liquids. You are on this stage for about 3-4 weeks.
- **Stage 4** consists of pureed, soft foods that are high in protein. Portion control and proper chewing of food are important parts of this phase. You are on this stage for about one month.
- **Stage 5** – At about 2 months after surgery, you begin Stage 5. This is the stage you will stay on for life. It consists of foods that have no added sugar, are low in saturated and trans fat, and contain high-quality protein. You will be shown how to measure and estimate food portions to ensure appropriate portion sizes.

If you are going to have weight loss surgery, you will meet with a dietitian before your operation and as scheduled throughout the recovery period. Follow-up is essential to achieving success. The dietitian will provide detailed nutrition information and individualize your nutrition plan. Some of the things you will learn about in detail include:

- **Fluid** – More than half of a healthy body consists of fluid. Because of your new, small stomach, after your surgery it will be necessary for you to take in smaller sips and drink every hour while you're awake. Your dietitian will talk about watching for signs of dehydration, including: headache, dry mouth, low urine output, and constipation. It is also important to avoid drinking fluids during meals because it may wash the food through the stomach pouch, which may lead you to become hungry soon after eating a meal.
- **Protein** - Your body needs protein to build and repair tissues, maintain healthy hair and skin, aid in digestion, and to carry on bodily functions to produce energy. Your dietitian will review how much and which types of protein (i.e. dairy, meat, fish, and soy) are the best choices for you after surgery.
- **Carbohydrates** – Carbohydrates are a good source of energy, fiber, vitamins, and minerals. As you progress in your diet plan, your dietitian will discuss the best sources of carbohydrates (i.e. complex carbohydrates: vegetables, beans, whole grains) to include in your diet.
- **Fat** – Fat provides energy; helps to absorb and transport vitamins A, D, K and E; plays a role in maintaining healthy nervous and immune systems; and helps you have healthy skin, hair, and nails. Not all fats are alike and your dietitian will review which types of healthy and essential fat to include in your diet.
- **Vitamins and minerals** – Depending on the type of surgery you have and your nutritional status, you will be advised as to which vitamin and mineral supplements you need in order to maintain good nutrition and health.

Your dietitian will guide you throughout the entire process. By learning what to eat and drink, and in what amounts, you will be able to choose the right foods to help maintain a healthy weight. Your small stomach pouch affects the amount you can take in at one time and the types of food you can comfortably eat. For many people, this means the ability to eat large amounts of food is lost forever. Many people will not be able to tolerate raw vegetables, bread, pasta, rice, or red meat after the surgery.

It is important to understand that in the months and years following surgery, overeating is still possible and can cause your small stomach pouch to stretch. **The surgery does not protect you from gaining weight if you take in a large number of calories from unhealthy food choices, frequent snacking/grazing,**

large meals, or not being active on a regular basis. However, the surgery does help most patients to keep overall calorie intake in check, resulting in weight loss and the maintenance of a more healthy body weight.

If I follow a healthy eating plan, is that all that is needed to lose weight?

We believe there are three factors related to long-term successful weight loss.

1. **Diet and nutrition** –Your weight loss and the maintenance of your weight loss are primarily the result of taking in fewer calories following surgery. This means making it a habit to choose healthier foods in smaller portions such as lean proteins, whole grains, fruits, and vegetables. You will need to limit saturated/trans fats, sugary foods, and alcohol.
2. **Exercise** – Regular exercise is extremely important for success. This means some kind of continuous activity for at least 30 minutes a day, 7 days a week. We suggest walking, either in a pool if you need the support, or on a soft surface such as a treadmill. Even if you haven't exercised in many years, some sort of safe plan will be important from the start.
3. **Psychological coping** – The weight loss surgery will have dramatic effects on many areas of your life. Your long-term success depends very much on how these changes impact you as a person. To help our patients cope with the effects of surgery, we run a support group and encourage all of our patients and family members to attend following surgery. In the support groups, patients and staff discuss many of the common issues weight loss surgery patients face. Some of these include:
 - dealing with a dramatic change in the shape of your body
 - what it means to develop a new “body image”
 - adjustments in lifestyle that are needed in order to follow nutrition and exercise routines
 - discovering that people treat you differently as you approach a lower weight
 - the reactions of family and friends to the changes that take place after surgery

How will I feel after the surgery? How long will I be in the hospital?

The length of time you spend in the hospital depends in part on the type of operation you have. In general, patients who have a LAP-BAND® procedure stay only one to two days. Patients who have gastric bypass stay two to four days. Occasionally, patients may have to stay longer.

Your recovery from this surgery is similar to that of any patient undergoing an abdominal operation. You will have some discomfort, but this is usually well controlled with medication. We try to make sure patients are up and about on the day of surgery, but most people do not return to their full schedules for about four weeks. If you decide to have the operation, you will receive more detailed information about what to expect.

What kind of follow-up care will I need?

You will need to be committed to long term follow-up. During the first year after surgery there will be a number of appointments for education and continued monitoring for safe weight loss. You will need to take a daily multivitamin and calcium supplement with vitamin D for the rest of your life. Your physician may order additional supplements if indicated. Blood tests are done four months after surgery and at least annually after that to assess your nutritional status.

Does the surgery ever fail? Is there a chance I won't lose weight, or that I will gain my weight back?

Most patients lose weight following WLS. However, in the years following surgery, it is common to re-gain *some* lost weight. A few patients will re-gain it all. Your food choices, activity level, and lifestyle after surgery will have a great effect on how much weight you lose AND on how long you will be able to maintain your weight loss.

It is important to understand that there is no guarantee that your weight loss will be significant or permanent. For some people, unhealthy eating patterns during the years following surgery will stretch the pouch and the stoma and they may gain back all of their weight. Although this is uncommon, it can happen.

A small stomach pouch cannot protect you from absorbing a large number of calories if you snack frequently between meals. Snacking or grazing on potato chips, crackers, pretzels, nuts, and cookies are the most common causes of weight re-gain after WLS.

Remember, WLS can increase your chance of losing weight by altering the way your body digests food. But making the correct food choices and getting the proper exercise will be as important as ever. You will need to establish healthy eating and lifestyle habits after surgery and sustain these changes for the rest of your life in order to ensure long-term success.

What are my responsibilities as a weight loss surgery patient?

1) Be at all scheduled appointments and tests on time. Your participation and willingness is vital to your success. If you do not keep your appointments, you may not be able to continue as a WLS patient.

2) Stop smoking! Smoking can increase your risk of a serious or life-threatening surgical complication. We ask that you quit for two months prior to your surgery, and may require a urine or blood sample to test for the presence of tobacco in your system.

3) Continue to try to lose weight! It makes a big difference, even if you can lose a small amount of weight before surgery. Weight loss can make your surgery safer and your recovery easier. Failure to lose some weight during the pre-operative period may mean you are not a good candidate for WLS.

4) Start to exercise. Increasing your physical activity in any way is important. Walking, swimming, dancing – find something that you can do every day for 30 minutes. If you have knee or back problems that make some exercises difficult, try water aerobics or just walking 10 minutes 3 times per day. Exercise is a great way to burn some calories, get you better prepared for surgery, and help speed your recovery.

5) Educate yourself. Weight loss surgery is a tremendous tool to help improve your health, but you need to know how to use this valuable tool. Study the materials provided by the WLS team and understand how your life will change after surgery. Use the online resources and talk to patients who have already had surgery to find out as much as you can about your new life. Understand the risks and complications of surgery and formulate your questions. Know what appropriate foods to eat after surgery and figure your plan of action. Ask a member of your team all your questions (write them down before your appointment so you don't forget).

6) Establish your support network. You must have supports in place to help you through this process. A supportive environment is very important, and we encourage you to bring your friends or family members to the information sessions on WLS offered at BIDMC.

If I am a woman of childbearing age, will I be able to have a baby after weight loss surgery?

In general, we recommend that you wait at least two years before attempting to become pregnant. Your body needs time to adjust to the changes in your digestion brought about by the surgery. Becoming pregnant before this adjustment is complete puts a strain on you and on a developing fetus.

Before becoming pregnant, make sure you have a complete physical exam with your primary care doctor or obstetrician, and discuss with him/her how you will ensure that you take in proper nutrition during pregnancy. We also recommend that you see our dietitian prior to pregnancy if possible for preconception nutrition planning. Once you become pregnant, nutrition follow-up continues to be essential to ensure healthy weight management for you and healthy growth and development for your baby. You will require the right amount of fluid, calories, protein, and fat,

plus vitamins and supplements, to ensure a safe and healthy pregnancy and birth. Patients who have had the LAP-BAND® procedure may want to see the surgeon to discuss whether the band should be loosened during pregnancy.

Patients who have WLS should understand that **oral birth control pills may not be effective** following gastric bypass surgery because of possible changes in how food and medicine are absorbed. In addition, hormone-based medicines of all types (such as the birth control patch or hormone-replacement therapy) should not be used in the months following surgery because of the risk of blood clots. If you have the surgery, please remember to talk with your primary care physician about a birth control method that is right for you.

I think I may be interested in this surgery. What happens next?

Please be sure to contact your insurance company to ensure weight loss surgery is covered under your insurance plan. You may want to request a copy of your coverage plan regarding weight loss surgery. In some cases, your human resource department may be able to assist you with this inquiry. Please note, although your insurance company will give you information about whether the surgery will be covered, official authorization for the procedure will not go through until you have been through the screening process for surgery and have been accepted as a WLS patient.

Once you have confirmed your insurance coverage, you will enter our screening process. The first step is to complete our health history form. (If you haven't already filled out a form, you may get one by calling 617-667-2845.) The screening process is a series of appointments in which you meet members of our team, including a nurse, a medical doctor, a dietitian, a psychologist, and one of the surgeons. There are usually a total of three to four appointments with our staff. We may also require that you see an exercise physiologist or physical therapist to receive an exercise prescription that is safe and effective for you. You will undergo tests and exams that help us determine if the surgery can be recommended for you. To better prepare for safe surgery, all patients are asked to lose some weight and exercise daily before the operation. In addition, it is required that you attend and sign-in to at least two information sessions on WLS held at the hospital.

Once you have completed the screening process, which typically takes two to three months, members of our team will meet to discuss their findings and whether they think that surgery is a good option for you. If it is decided that you are a good candidate for surgery, you will meet with one of our surgeons, discuss the surgery, and receive a surgery date.

Where can I find additional information about weight loss surgery?

We recommend that you find out as much as you can about this surgery before you proceed. The more questions you ask, the better informed and prepared you will be if you decide to proceed with surgery. Please visit our website at <http://www.bidmc.harvard.edu/wls> for additional information.

The Internet has a great deal of information available on weight loss surgery and other weight loss treatments for severe obesity. At some sites, you can “meet” and “talk” with patients who have already had one of these operations. This is a good opportunity to ask about things like diet changes, dumping syndrome, and overall success with weight loss. Ask recovering patients if they would make the same decision again. If so, why? If not, why not?

However, please be aware that, as with all health information on the Internet, not all of the information is accurate, and not all sites are sponsored by reliable sources. When evaluating a web site, make sure you get some background on the site you have found. For example, find out if the information was posted by a reputable organization and when it was last updated. These are two important steps you can take to help make sure you have found a reliable source of information.

As you can see, there is a lot to learn about this important operation. Please make sure you have read all the information in this brochure carefully and that all your questions are answered.

*This brochure was prepared by clinicians from the weight loss surgery (WLS) program at Beth Israel Deaconess Medical Center. Materials have been taken in part from information available through the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) of the National Institutes of Health and from the Betsy Lehman Center for Patient Safety and Medical Error Reduction within the Department of Public Health, Massachusetts Expert Panel on Weight Loss Surgery Summary. Artwork reprinted from Schneider B, Jones DB, and Provost D “Obesity Surgery: Roux-en-Y and Gastric Band Procedures,” in DB Jones, JS Wu, & NJ Soper (Eds), *Laparoscopic Surgery: Principles and Procedures*, 2004, pages 553-567, by courtesy of Marcel Dekker, Inc. This brochure is produced and distributed by The Beth Israel Deaconess WLS team in conjunction with the Beth Israel Deaconess Learning Center. ©2007, Beth Israel Deaconess Medical Center. All rights reserved. MC0933 Rev. 11/07*