

Metabolic & Bariatric Surgery



335 E. Sonterra Blvd., Suite 200
San Antonio, Texas 78258

Phone: 210-615-8500

Fax: 210-615-8501

This handbook is a tool that has been designed to provide basic guidelines as well as a realistic framework of what to expect as you begin and then continue on your weight loss journey. It is not to be considered as a replacement for medical advice or seeking treatment from your BMI medical professionals.



Reshaping Your Life™

Mission Statement

BMI of Texas exists to provide innovative and comprehensive medical and surgical care to patients with obesity and metabolic disease. We are dedicated to creating and enduring partnership with patients to ensure their long-term success. We are committed to providing such care in a supportive, compassionate, and guilt free environment.

Our Vision

Redefining healthcare by creating meaningful relationships and experiences with our patients and the community to overcome obesity and metabolic disease fostering improved health and a better quality of life.

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Registration #TXU 001-686-716 Effective Date of Registration: April 30,
2010

Version update: June

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MEET OUR DOCTORS

BARIATRIC SURGEONS:

Dr. Terive Duperier



Dr. Richard Englehardt



PHYSICIAN'S ASSISTANT:

Christa Black, PA-C



MEET OUR CLINICAL TEAM

NURSE PRACTITIONER

Amber Willborn, NP-C



REGISTERED DIETITIAN

Katie Lightfield, MS, RD, LD



BEHAVIORAL HEALTH SPECIALIST

Natasha Klavon, MA, LPC



WELCOME TO BMI OF TEXAS

Congratulations on taking the first steps towards a healthier life. We understand that overweight and obesity can be a very frustrating and challenging disease to manage. Undoubtedly you've tried things on your own and have not had sustained success. With world class leading physicians in medical and surgical weight loss on your team, sustainable and meaningful long-term success is in your future. We are excited to partner with you on your journey.

OBESITY OVERVIEW

Obesity is a medical disease in which a person has an excess of body fat resulting from a combination of diet, inactivity, genetic factors, excess stress, sleep disorders, hormonal imbalances, and/or other contributing medical diseases. Obesity is also defined in terms of a person's **Body Mass Index (BMI)** which is a calculation based on the individual's height and weight.

BMI 25 or lower is referred to as the ideal body weight.

BMI 25-30 is considered overweight

BMI 30-35 is Class 1 Obesity

BMI 35-40 Class 2 Obesity

BMI greater than 40 Class 3 Obesity

BMI is calculated as your weight in kilograms / height in (meters)². It is easy to calculate your BMI on our website at www.bmioftexas.com. Determination of obesity based on BMI measurement alone is not always accurate since it does not account for lean muscle mass. For this reason, waist circumference and body composition are also used to define obesity. Individuals of certain ethnic descent have lower BMI thresholds to meet the criteria for obesity.

Obesity is of particular concern because it very often causes or exacerbates other medical problems.

There are many medical conditions that are commonly caused or exacerbated by obesity. They include the following: degenerative arthritis of joints, such as the back, hips, knees, ankles, and feet. In addition, severe obesity increases one's risk for stroke, heart disease, high blood pressure, high cholesterol, high triglycerides, diabetes, fatty liver, asthma, obstructive sleep apnea, stress urinary incontinence, reflux esophagitis, diverticular disease of the colon, gallbladder disease, kidney disease and many forms of cancer.

A patient with a BMI greater than 35 who has medical problems or BMI greater than 40, is likely a very good candidate for surgery.

Sometimes patients with class 1 obesity (BMI 30-34) will also be good surgical candidates.

Having a BMI greater than 60 significantly increases your risks associated with surgery and it is very important for you to try to lose weight to get under a BMI of 50 in order to decrease your risk of complications during and after surgery. We often recommend patients begin working with our **CMSP** program prior to undergoing bariatric surgery.

Treatment Options

Comprehensive Obesity Treatments:

At BMI of Texas, we are proud to offer a comprehensive weight management program. While our surgeons perform the full spectrum of bariatric surgeries, including complicated revisions, we also offer a comprehensive non-surgical medical weight loss program. Because obesity is a such a complicated disease which cannot be simply ‘cut out’ surgically, we provide our surgical patients with individualized support that is necessary for long term success. This is called our Comprehensive Medical-Surgical Program, or **CMSP**.

Overview of Bariatric Surgery:

For most people, bariatric surgery is truly the “Standard of Care” when all other methods have failed. Drs Duperier and Englehardt perform several weight-loss surgery operations. These include the Roux-en-Y Gastric Bypass, the Sleeve Gastrectomy, the Duodenal Switch, and Adjustable Gastric Banding (The LapBand™), as well as revision operations which are tailored to the individual.

Important points to consider before making the decision to have surgery:

- Weight loss surgery is a tool, not the solution itself.
- Determine your own motivation and reasons for seeking surgery.
- Weight loss surgery helps you drop pounds – not problems.
- Be ready to consider all the factors that may have contributed to your obesity in the first place and make changes in your life to avoid those same pitfalls in the future. The key to success lies in your commitment to long term follow-up and comprehensive lifestyle change.

Your Role as a Patient

You play the most critical role in the long-term success of your weight loss surgery. It is important for you to understand that you will need to make a long -term commitment in order to lose weight and improve your health. Bariatric surgery is not unlike heart surgery or a major orthopedic surgery for a joint replacement...all of these surgeries can be **‘life-changing’ (and sometimes even lifesaving)** but if you do not do the ‘work of rehab’ following the surgery, the benefit will not be near as great. In bariatric surgery, the ‘work of rehab’ is the commitment you make to long term follow-up and comprehensive lifestyle changes. Part of this commitment includes the necessity of taking certain vitamin and mineral supplements **lifelong**. It is important that you discuss any questions or concerns that you might have with your surgeon throughout this process. We want you to learn all that you can about surgery **before** making any decision. It is important that you also follow the instructions that the surgeons and the BMI team give you before and after surgery.

As your surgeons, we make a commitment that we will be with you every step of the way and will provide the support you need. Drs. Duperier, and Englehardt are highly trained bariatric surgeons who know how to deal with bariatric problems and more importantly, they genuinely care about their patients. Help is never far away.

We ask you to make sure you continue to follow-up with the BMI team on a routine basis, frequently during the first year, and regularly for the rest of your life! **The more you follow-up, the more successful you will be!**

BMI of Texas Weight Loss Surgery Follow-Up Schedule

Follow-up is KEY to your SUCCESS!

Visit	Surgeon or Nurse Practitioner	Registered Dietitian	CMSP	Behavioral Health	IDEXA/Labs
Month 1	2 week post-op				
Month 2	6 week post-op class (online)	8 week post-op		2 month consult	
Month 3	3 month post-op				Labs
Month 4	4 month post-op			4 month consult	
Month 5					
Month 6	6 month post-op	6 month post-op	CMSP Seminar		Labs (optional) MD or NP
Month 7			1ST CMSP consult		
Month 8			Follow-up PRN	8 month consult	
Month 9		9 month post-op	Follow-up PRN		
Month 10			Follow-up PRN		
Month 11			Follow-up PRN		
Month 12	1 year post-op "Surgiversary!"	1 year post-op "Surgiversary!"	Follow-up PRN	1 year consult	Labs Idexa Scan

To achieve optimal results for health and weight loss goals, our surgeons recommend your involvement in our Comprehensive Medical Surgical Program (CMSP).

Ask our front desk about how our nurse practitioners, physician assistants, dietitians, and behavioral health specialist can help you! **210-615-8500**



Part I: Weight Loss Surgery Overview

SURGICAL TREATMENTS:

- ❖ Roux-en-Y Gastric Bypass
- ❖ Sleeve Gastrectomy
- ❖ Duodenal Switch
- ❖ Adjustable Gastric Banding (Lap-Band™)

Roux-en-Y Gastric Bypass Surgery

The Roux-en-Y Gastric Bypass works in several ways.

Restriction- Eat Less

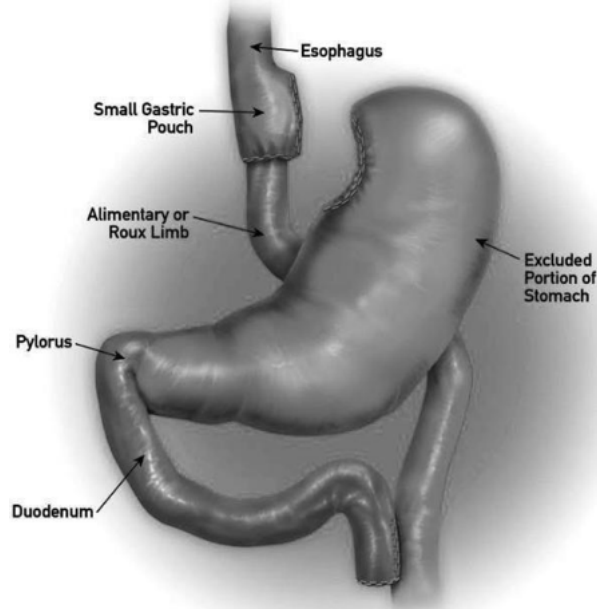
Comes in the form of not being able to eat very much food due to the small size of the pouch that is created.

Malabsorption- Absorb/store Less.

Occurs as the gut is not able to entirely absorb even the small amount of food you have eaten. The Roux-en-Y gastric bypass works by re-routing, re-connecting, or re-wiring your intestines, so that your new stomach is only about the size of your thumb and holds only 1 to 2 tablespoons of food. This may sound concerning, but indeed this surgery has proven to be very safe and effective.

Metabolic- decreased hunger decreased storage of calories as fat.

This is a surgery that recalibrates the neuro-hormonal pathways that your body uses to regulate weight and distribution of energy.



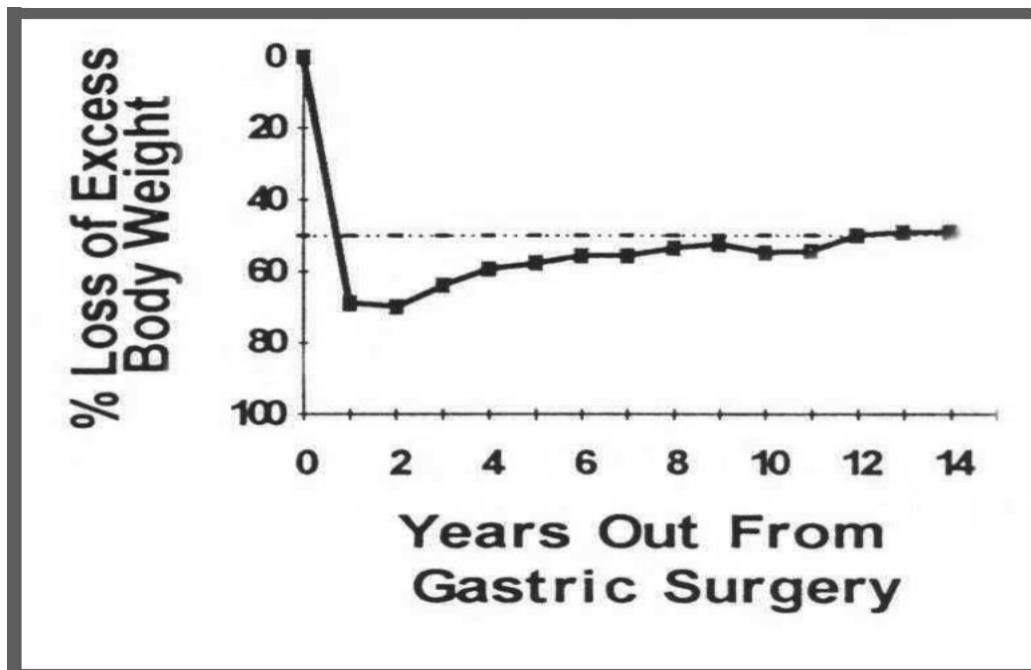
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Anatomy of Roux-en-Y Gastric Bypass

After surgery, you will need to re-learn how to eat so that you eat very small portions. We teach you to incorporate high protein and nutrient-rich foods into your meals, such as lean meats and vegetables. While you might initially only be able to eat a couple of tablespoons of food, at one year post-operatively, patients are eventually able to consume a meal comparable to a “child size portion” or about the size of the palm of your hand (not including the fingers). This small portion will leave you feeling satisfied and without feeling residual hunger. Your gastric pouch empties into the small intestine, where the food then mixes with bile and other enzymes. Beyond this point, digestion is normal. Because food can only be absorbed once it is converted to a liquid form, there is a dramatic reduction in the absorption of food that is consumed. Despite what you may have heard, you can expect the absorption of medications to be normal, and most patients do not need to adjust their current dosages to accommodate for the malabsorption. It is, however, very important to take a multi-vitamin every day for the rest of your life, in addition to extra supplementation of Vitamin B-12, Calcium Citrate, Vitamin D, and Iron. This is of critical importance since the main areas involved in absorption of these micronutrients and minerals (calcium, folic acid, vitamin B12, iron) are the stomach and duodenum (small intestine) which are essentially no longer being exposed to the food that is consumed. Think of it like you are eating decreased amounts of food, therefore you need to increase the supplements that you take.

Expected Weight Loss After Gastric Bypass

One of the advantages of the bypass is that patients lose more weight than with some of the other bariatric operations. In addition, the weight loss is rapid. You can expect your maximum weight loss to be achieved in about 18 months, and you **can expect to lose approximately 70% of your excess weight**. What does this mean? If you are a male and you currently weigh 300 pounds and are 5 feet 8 inches tall, your BMI would be 45.6. By looking at the BMI Calculator on our website, you can see that you are 132 lbs over your ideal body weight. In other words, $300 - 168 = 132$ pounds. With a gastric bypass, you can expect to lose 70% of that 168 pounds, around (92-95) pounds.



The graph was published by Dr Walter Pories in 1986. The graph is important because it illustrates the importance of how gastric bypass patients lose weight.

One can see that initially weight loss with a gastric bypass is very rapid. Somewhere about 18-24 months you will completely stop losing weight and will gain a small amount of weight back. The reason that this is important to know is that many times patients get scared or concerned about how fast they are initially losing weight with a gastric bypass. Patients sometimes feel that they have lost too much weight. The natural tendency is to try and compensate by eating more and trying to slow down how fast they are losing. This behavior will result in a higher weight several years down the line. The natural course is to lose the weight very quickly and then gain back a few pounds before settling at your new “normal” weight. Our advice is to enjoy and take advantage of the tremendous restriction that you will feel in the first year after surgery.

The gastric bypass is successful because not only does it severely restrict the amount and quantity of food that you can eat but also it has some hormonal metabolic effects as well. There is a hormone called ghrelin that is mostly made in the fundus of your stomach. This hormone stimulates another hormone called Neuropeptide Y. Neuropeptide Y stimulates your appetite. When we perform the gastric bypass, we are bypassing the fundus of the stomach that produces the hormone ghrelin. With less ghrelin being manufactured by your body, there is less stimulation of your appetite because there is less hormone to activate the Neuropeptide Y. This is one of the factors that will contribute to your weight loss. Additionally, another gut hormone, GLP-1, is up regulated which makes your body more sensitive to the insulin that you make and can help to decrease your body’s tendency to store calories as fat. It helps you switch into a fat burning state.

Gastric bypass can have dramatic impacts, beyond weight loss itself, which can significantly improve the status of certain medical conditions. Reflux, heartburn, and diabetes are profoundly improved and even cured in most cases after gastric bypass. This is most evident in the fact that diabetic patients who are on medications are often able to be discharged no longer requiring medication to control their blood sugar and this occurs long before the patient has had any significant weight loss. Clearly, there is something that happens at the hormonal, physiologic, and molecular level with the gastric bypass that the medical profession has yet to understand. Patients, who have a gastric bypass, can expect an **84% resolution rate of their diabetes**, compared to 50% with the Gastric Banding procedure.

Risks of Gastric Bypass Surgery

Because the Gastric Bypass Surgery is a technically challenging operation, there are some increased risks as compared to the adjustable gastric banding, or sleeve gastrectomy. There is approximately 0.5% risk of leaking from one of your two new connections. We do everything we can in the operating room to prevent these leaks from happening. However, even when everything goes as planned, patients can develop complications. There is also a small risk of ulcers at your top connection which is called your gastrojejunostomy. For this reason, we stress that you **NOT** take any non-steroidal anti-inflammatory drugs such as **Aspirin, Ibuprofen, or Motrin** - as these medications can create ulcers. It is important to check with a physician prior to taking any medications, even over the counter meds.

Even if a patient follows all these recommendations, and does everything right, there is approximately a 4% - 8% risk of developing a **stricture** or an **ulcer**. If a patient does develop an ulcer or stricture, they may require additional procedures, such as an upper endoscopy, (EGD or “upper scope”), which allows us to inspect the inside of your pouch and small intestine. In almost all cases, ulcers are treated with oral medications for several months and they resolve without requiring any further treatment. Strictures are treated with a balloon dilatation which is also performed during an EGD as previously described. It is not uncommon for patients to need to have this procedure repeated at some point in their future. This is because the balloon will not always be able to stretch the opening to the desired width with one application. On occasion, the staples, or stitches that we use to make these connections are found when these scopes are done. This is normal, and you should not worry that they were left behind. They were placed there on purpose and as the body heals, it can expel them into the GI tract. If they are irritating an ulcer or a stricture, they can usually be safely removed at that time by the endoscopist.

Although not truly a risk, **“Dumping Syndrome”** is a common complication/side effect after having a Gastric Bypass. Up to 85% of patients will be able to feel a dumping syndrome after gastric bypass surgery. Symptoms of “dumping” can include a very unpleasant sensation of a rapid heart rate, nausea, vomiting, abdominal pain, and sometimes diarrhea. Dumping Syndrome usually occurs when a patient eats foods that are high in sugar, particularly refined sugar. This occurs because the intestines are not used to seeing this sugar so early in the digestive process without at least being partially digested. The intestines can react aggressively for the first year after surgery. Although “dumping” is generally felt to be quite unpleasant, for many patients it is considered to be an advantage as it helps them to modify their eating behaviors. It is important to know that you can “dump” from anything that has sugar, even over-ripe fruit! Often, there are hidden sugars in food like Chinese food or sauces that can also cause unexpected “dumping.” See our dietitian to help prevent dumping syndrome from occurring.

Other complications include internal hernias [$<2\%$], developing gallstones, some temporary hair loss, bleeding, or developing an incisional hernia. These are very infrequent, however.

1. Overall, 10-15% of gastric bypass patients will require another intervention or operation in their lifetime.
2. The risk of alcohol use disorder or alcoholism is 4x higher in gastric bypass patients versus non-surgical patients due to the rapid absorption.

It is important to understand that it is difficult to reverse a gastric bypass. You must be prepared for the fact that this is a permanent operation.

Also, as with any surgery or procedure there are risks, albeit small, for severe complications like allergic reactions, infections, heart attacks, pneumonia, and rarely death.

Visit our website at www.bmioftexas.com to view footage of actual gastric bypass surgeries performed by our doctors.

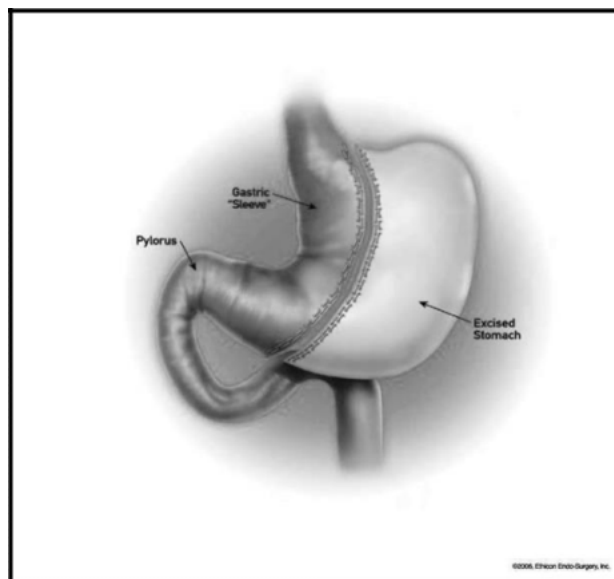
Sleeve Gastrectomy

The surgeons at BMI of Texas are among the most experienced surgeons in South Texas currently performing sleeve gastrectomy's. Dr. Duperier performed the first sleeve gastrectomy in San Antonio in 2006.

Restriction - eat less.

Metabolic - Decreased hunger and decreased storage of extra calories as fat

The sleeve is a **restrictive** operation in that there is no re-routing of the intestines, and it is done laparoscopically. The operation works because we permanently remove about 80% of the stomach – but we remove it lengthwise along the long axis of the stomach. When we are finished with the operation, your stomach has the appearance of a banana or a hockey stick. It is a long, tubular, and stiff stomach that does not have much capacity to hold food. It holds about 3-6 ounces of liquid.



Anatomy of Sleeve Gastrectomy

This is also considered a metabolic surgery because it modifies the way the body distributes energy and recalibrates the neuro-hormonal pathways that lead to obesity. So not only does the sleeve gastrectomy severely restrict the amount and quantity of food that you can eat but it also has some hormonal metabolic effects as well. There is a hormone called ghrelin that is mostly made in the fundus of your stomach. This hormone stimulates another hormone called Neuropeptide Y (NPY). Neuropeptide Y stimulates your appetite and tells your body to store energy as fat. By decreasing NPY your body will be less hungry and store less fat. When we perform the sleeve gastrectomy, we are removing the main area that produces the hormone ghrelin. With less ghrelin being manufactured by your body, there is less stimulation of your appetite because there is less hormone to activate the NPY. The sleeve operation also increases GLP-1 and thus improves the body's sensitivity to insulin and decreases the body's tendency to store extra calories as fat.

Sleeve gastrectomy can have dramatic impacts, beyond weight loss itself, which can significantly improve the status of certain medical conditions. Sleep Apnea, hyperlipidemia, hypertension and diabetes are profoundly improved and even cured in most cases after sleeve gastrectomy. If a patient suffers from severe reflux/GERD before the procedure, this may not be a good operation to cure that medical condition. Some patients, up to 25%, will have reflux after the sleeve gastrectomy.

Expected Weight Loss after Sleeve Gastrectomy

Weight loss after the sleeve gastrectomy is very similar to that of a gastric bypass (65-70% excess weight loss), at least for the first two years. Initially it is not as rapid as the weight loss with gastric bypass, but it is slow and progressive as you continue with the lifestyle changes.

Risks of Sleeve Gastrectomy

The sleeve gastrectomy has potential complications much like any other surgery. The risks are mostly related to the long staple line that is created along the length of the stomach. Specifically, bleeding and leaking are two of the more serious complications that can occur with a sleeve gastrectomy. Like the gastric bypass, we make every effort to minimize the risk of these complications. Our surgeons utilize state of the art equipment and a technique, including intra-operative endoscopy to ensure everything is connected and working as it should and there is no evidence of bleeding or leakage. Endoscopy involves the placement of a small fiber optic camera or ‘scope’ which allows us to see inside the “new stomach” to be sure everything looks good. Rarely, we will need to leave a drain in place to facilitate the removal of fluid. This is usually removed before you leave the hospital.

We also require that the sleeve patients stay on a **3-week liquid diet after surgery**.

Sleeve gastrectomy patients might have nausea after surgery. The nausea goes away usually within a couple of days but occasionally it can linger for longer. In addition, sleeve gastrectomy patients often complain of chest discomfort while drinking their liquids. We believe that this is because your body is used to having more stomach to push food and liquid into. Your body needs to adjust to the fact that your stomach is no longer there. Again, this is something that gets better in time.

Please also note that if you have GERD (acid reflux), this can get WORSE after surgery. 15-20% of people can develop GERD even if they were normal before. After several weeks or months this will usually get better and hopefully resolve. For this reason, you should plan to continue taking your reflux meds after surgery for a while. Sometimes reflux is caused by eating too much food or too quickly. Often, behavioral changes will make this better.

Also, as with any surgery or procedure there are risks, albeit small or severe, like allergic reactions, infections, heart attacks, pneumonia, and rarely death.

Visit our website at www.bmioftexas.com or our Facebook page to view footage of actual sleeve gastrectomy surgeries performed by our doctors.

Duodenal Switch

The duodenal switch is a weight loss operation that combines qualities of both the sleeve gastrectomy and the gastric bypass. The operation is performed in two steps. First, we perform a sleeve gastrectomy removing around 80% of the stomach and converting the stomach into a slender tube. The sleeve part of this duodenal switch surgery is sometimes slightly larger than what we would make for a standard sleeve gastrectomy depending on patient needs.

We then divide the small bowel that normally connects to the stomach (called the duodenum) to create the bypass portion of the surgery. After food enters the “sleeved” stomach it goes into the initial part of the small intestine, but then it is re-routed or ‘switched’ to the lower part of the small intestine (the ileum). There are several ways to go about this “bypass” part of the operation.

Of all the operations that we offer this is the most drastic and as a result, it creates the most weight loss and the greatest chance to eliminate diabetes. There is no dumping syndrome with this operation.

This operation works by decreasing caloric intake, decreasing absorption, but also by changing the hormonal balance in the gastrointestinal tract. Like the bypass and sleeve, this is a metabolic surgery that will lead to decreases in ghrelin (hunger hormone), increases in insulin sensitivity (possibly via the hormones PYY and GLp-1), decreases in the body’s desire to store extra energy in the form of fat. This operation is also shown to change the types of bacteria that live in our GI tract (microbiome). Good bacteria will replace bad ones, and this has been shown to help with weight loss and weight management.

Since the stomach is significantly smaller and only a small portion of the intestine has a chance to digest food before the food enters the colon, this procedure is both restrictive and malabsorptive.

Expected Weight loss After Duodenal Switch

With the “switch,” patients can expect to lose between 90-100% of their excess weight. Long term success is amongst the highest seen in bariatric surgery. As with the other operations, routine follow up with our staff is critical to long-term success.

Risks of Duodenal Switch

Similar to the sleeve gastrectomy and Roux-en-Y gastric bypass, patients can develop bleeding or a leaking from their staple line and/or anastomosis. In the operating room we make every effort to prevent this by using intra-operative endoscopy – a camera inside the stomach. These risks are

generally low (1/500). We do require all Duodenal Switch patients to stay on a **liquid diet for 3 weeks after surgery**.

Just like the sleeve gastrectomy operation, patients might have nausea after the Duodenal Switch surgery. The nausea goes away usually within a couple of days but occasionally it can linger for longer. In addition, there might be some chest discomfort while drinking liquids initially. We believe that this is because your body is used to having more stomach to push food and liquid into. Your body needs to adjust to the fact that your stomach is no longer there. Again, this is something that gets better after surgery.

With the duodenal switch there is a greater opportunity for malabsorption. Protein calorie malnutrition can be seen in 'switch' patients and may require modification of the surgery to allow for more absorption. Also, there is a greater chance that patients can develop mineral and vitamin deficiencies. Specifically, vitamins which dissolve in fat (A, D, E, K) need to be supplemented and closely watched. Trace mineral deficiencies can also occur (copper, zinc) if patients are not taking the correct supplements and followed closely.

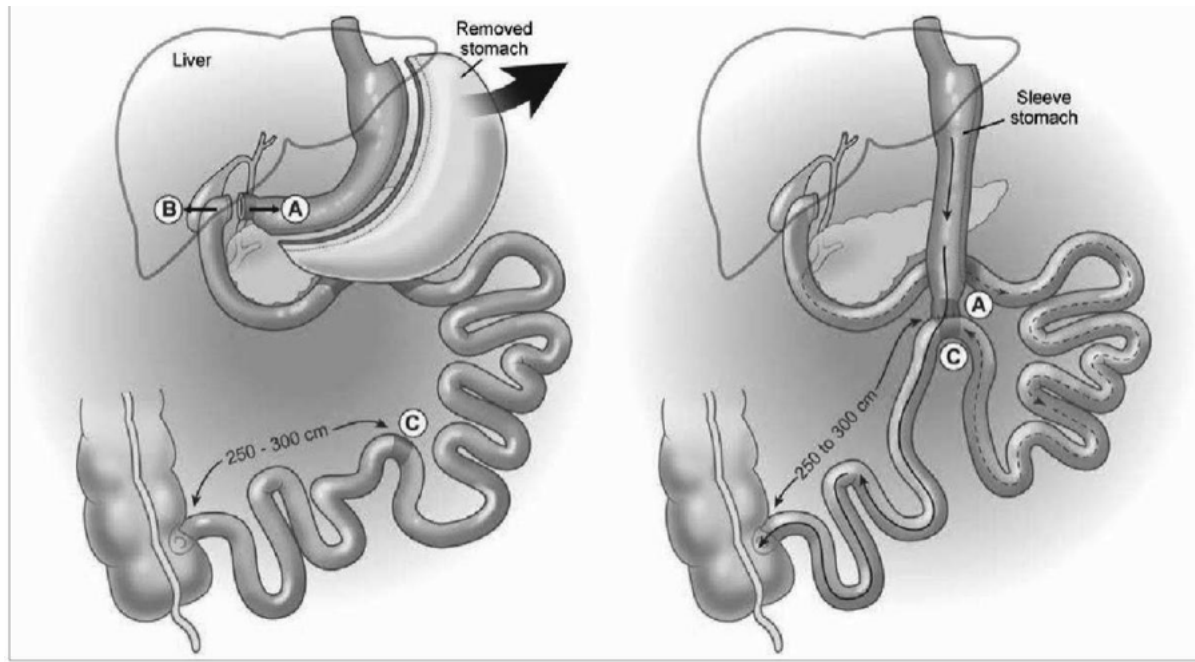
Other complications include internal hernias [$<2\%$], developing gallstones, some temporary hair loss, bleeding, or developing an incisional hernia. These are very infrequent.

It is important to understand that a duodenal switch cannot be reversed and is a permanent operation.

Not necessarily a risk or complication, but due to the significant length of bypassed intestine, patients will experience more frequent bowel movements. Patients can experience 1 to 4 bowel movements a day. These can also be greasy in texture or foul in odor due to the poor absorption of fat. There are some medications that people can take to decrease the odor. Devrom might be carried at your pharmacy, or you can order online (Amazon).

DUODENAL SWITCH ILLUSTRATION

The figure demonstrates the stomach being made smaller and removed, how part A and B are separated and how part A and C are brought together. In a traditional duodenal switch, a second connection is formed to divert bile downstream from the connection illustrated below.



Adjustable Gastric Banding

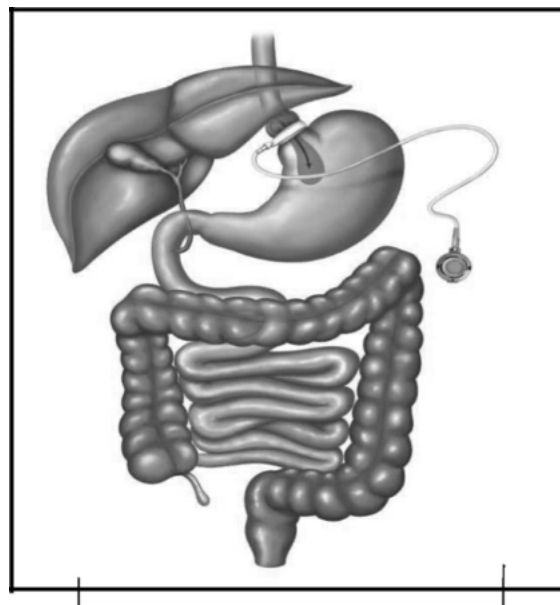
(Lap-Band™)

The Adjustable Gastric Banding was considered to be a safe operation and less invasive than either the gastric bypass or the sleeve gastrectomy. It was introduced in the United States in 2001 although it was available in other countries prior to this. Most patients have one of two types of gastric bands: the **Realize Band** and the **Lap-Band**. However, the Realize Band was removed from the US Market in 2016. Adjustable Gastric Banding is a purely **restrictive** procedure, **which you will recall means that the amount of food that can be consumed is dramatically reduced.** The operation works solely by restricting food intake. There is no re-routing or re-wiring of any of your intestines. There is NO METABOLIC EFFECT with band surgery. The band is a small device that goes around the top part of the stomach. It contains a balloon which is slowly inflated over time resulting in a “tightening” of the band around the stomach. This in turn leads to greater restriction and ultimately more weight loss.

Although the lap band system showed promise in the early 2000’s, it has shown significantly less success with long-term weight loss than either the sleeve gastrectomy or gastric bypass. Risks associated with this procedure are band slippage and band erosion, which have led to over 50% of patients undergoing a band removal surgery.

BMI of Texas is well equipped to manage bands and help patients undergo adjustments as needed in order to resume or continue weight loss. In addition, we are one of the most experienced practices in South Texas for revisional surgery following band removal.

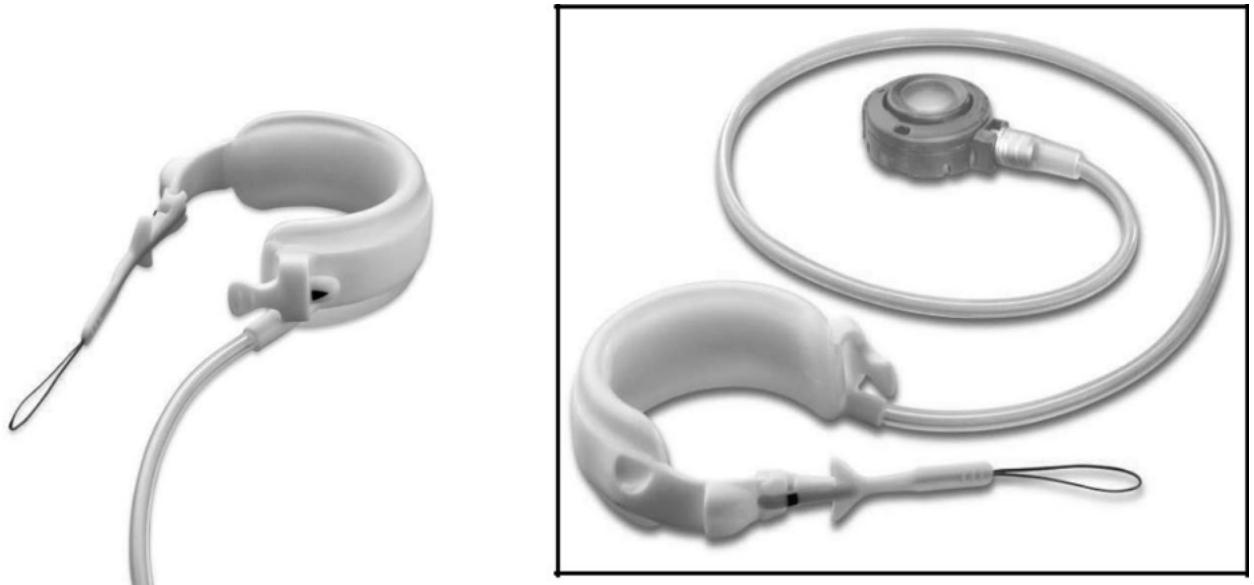
It is important to note that this operation is **not** a metabolic surgery and does not influence Ghrelin (hunger hormone) or Leptin (satiety hormone) favorably as in the case with the gastric bypass and sleeve gastrectomy. Some patients will remain feeling hungry after the band is placed.



Anatomy of Gastric Band Placement

Realize™ Band

(Realize Band was removed from US market in 2016)



Lap-Band™ System



OVERALL RISKS OF BARIATRIC SURGERY

There are risks and complications associated with any surgical procedure you choose. If you went to the dermatologist and had a mole removed, there are still risks associated with this procedure. We will discuss with you candidly, the risks associated with Weight Loss Surgery, and we will summarize them in the following overview.

In the operating room, there are certain intra-operative problems that can occur. There can be bleeding inside the abdomen, as well as a leak in staple lines or at new surgical anastomosis site. At BMI of Texas, we utilize intra-operative endoscopy to assess for leaks and bleeding. Any bleeding or leaks are repaired at the time of surgery. Our surgeons work carefully to ensure everything is working as it should, there is no evidence of a leak or bleeding, and that the patient is stable. They treat each patient as if he or she is family and take extreme caution with their technique. No one leaves the operating room without a perfect-appearing operation. A gastric bypass and duodenal switch are very complicated and involves multiple areas of the body and therefore there are certain organ systems that are at risks for injury, including the colon, small intestine, pancreas, stomach, liver, esophagus, spleen, and blood vessels.

As with any major surgery, one can develop problems with other organs, such as collapsed lungs or pneumonia of the lungs. You can also develop bleeding at one of your new connections, which may or may not require a transfusion and sometimes a second operation to stop the bleeding. Most bleeding episodes do not require transfusion and are managed with close patient observation and several extra days in the hospital. Even when surgery goes well, it puts considerable stress on the human body. Rarely, patients can have a heart attack or problems with their kidneys or liver. Patients are not discharged from the hospital until we are certain that the body is well on its way to recovery and all organ systems are functioning properly.

Perhaps one of the most feared complications that can occur with all bariatric surgeries is the development of a **pulmonary embolism**. This is when a blood clot forms in the leg and the clot then breaks off and goes to the lungs. **This can be a fatal problem.** People can also develop clots in the liver or spleen and nearby vessels after these surgeries. It is important to note that this complication is not unique to bariatric surgery, and it can occur as a result of any major surgery and is sometimes completely unrelated to surgery. Heart attacks, or myocardial infarctions, can occur rarely as well – especially for some people who are pre-disposed to cardiac disease due to risk factors or who have known heart disease. It is important to be honest with your surgeon about symptoms such as chest pain, especially with exertion so that appropriate preoperative testing can be done to minimize your cardiac risk.

There is a risk of death with all bariatric surgery; this risk is about 1 in 1000. For comparison, the risk of death for gallbladder removal is 7 in 1000.

Occasionally, in the post-operative period, there could be other more long-term complications and problems that arise. Patients sometimes develop nutritional deficiencies such as anemia, protein deficiencies, iron deficiency, and other mineral and vitamin abnormalities because of the malabsorption that is seen with the gastric bypass and duodenal switch. This is why it is so important.

to be followed closely by your surgeon so we can monitor for these problems and intervene appropriately to correct them. Without recognition and treatment, some of these problems can become serious and even life-threatening.

Weight Loss surgery patients can also develop chronic nausea, vomiting, diarrhea, and/or abdominal pain requiring admissions to the hospital for evaluation and IV rehydration.

Some less serious but equally bothersome side effects can be hair loss and excess skin following significant weight loss. Hair loss is very common after weight loss surgery; however, hair loss is not typically permanent. Hair loss usually stops at 9 months and usually the hair comes back in new roots and often with new texture. It is not uncommon to hear patients describe that their hair is now healthier than it was before they underwent weight loss surgery!

Excess skin, or skin that was previously overstretched, can be very bothersome to patients. Patients sometimes complain of problems with the way their clothes fit but this can be minimized by wearing specially designed undergarments. Additionally, some people experience skin irritation and breakdown where folds of skin rub together. This is also something that can generally be managed with some suggestions from your surgeon or dermatologist. Some people do decide to undergo plastic surgery to remove this extra skin, but it is important to understand that this is often NOT covered by insurance companies unless it is causing some type of health problem.

Notes:

[illegible]



Part II: Preparing for Bariatric Surgery

- ❖ Before Your Operation
- ❖ Day of Surgery
- ❖ Your Stay at the Hospital

Before Your Operation

✓ Seminar Attendance

- o If you are reading this, you have likely already viewed it online. If you have not, it is a mandatory requirement. You can watch a free seminar on the website (www.bmioftexas.com). They are designed to provide valuable non- biased information about the process and the surgeries.

✓ Initial Evaluation-first appointment after seminar

- o First official appointment-can last about an hour.
- o Meet with one of our providers to review your medical history and determine if any additional tests are needed to prepare you for surgery.
- o Meet your **Patient Advocate** who will guide you through each step of your weight loss surgery journey. We will order some baseline labs and other tests as well as set up some appointments with our dietitian and behavioral health team.
- o **Receive information on how to navigate our website and sign up to follow us on our social media, such as FACEBOOK at www.facebook.com/bmioftx , INSTAGRAM (@BmiOfTx) and Pinterest.**
- o Meet with our financial counselor, if needed, to discuss the specifics of what your insurance company covers.
- o **If your insurance doesn't cover the surgery DO NOT WORRY! Financing is available!**

✓ Personal Preparation

- o Now that you have decided to proceed with surgery, there are certain things you may want to do prior to your operation to ensure that you are as prepared as possible for the procedure.
- o For example, you will want to consider taking a multivitamin for overall good health.
- o We also recommend that you start taking a calcium citrate supplement and B12 vitamin daily. This will help you practice for what is expected after surgery, especially if you plan to undergo gastric bypass or duodenal switch. Vitamins and minerals are especially important after weight loss surgery to maintain good nutrition and health. Our dietitian can assist you with selecting a multivitamin and can provide samples for you to try. After your dietary consultation, you may also purchase products in our office.
- o At BMI of Texas, we want you to think of surgery as your personal **Olympics**. We want you to “train” for surgery. We want you to make every effort to begin exercising and getting used to the idea of being more physically active. Take the stairs, walk your dog, park further away from the entrance of a store.
- o Successful weight loss requires a change in the way you think about activity, nutrition, body image, and your spiritual self.

- o We also want you to make every effort to start incorporating some of the behavioral changes needed to ensure long-term success, for example separating your liquids and solids when eating, avoiding or limiting alcohol, or parking your car as far away as possible.
- o Start now making changes in the way in which you eat. Take your time with eating, eat smaller portions, choose foods higher in protein, avoid refined sugars, start **READING FOOD LABELS**, clean out your pantry, etc. You cannot go from eating whatever you ate before your surgery to eating what the typical bariatric meal plan consists of and expect to be successful. It requires some training and preparation.

✓ Pre-op Testing

- o Before surgery day, your surgeon may want you to undergo some testing based on the history that was given.
- o This can include lab work, ultrasound of your liver/gallbladder, sleep study, ultrasound of your lower extremities, barium swallow, endoscopy (see video on our website) or colonoscopy.

The bariatric team may also recommend that you see certain medical specialists before your surgery like a cardiologist, nephrologist, gastroenterologist, psychologist, endocrinologist, or hematologist.

Note: the preferred providers that we like to use are CPL (Clinical Pathology Laboratories) and Frontera (cardiac testing done in our office).

✓ Medicines

- o It is very important that you **avoid aspirin** and any **products that contain aspirin** for **at least 7 days prior to surgery**.
- o Some medications also increase your risk of forming blood clots and you will be asked to stop these 2 weeks prior to surgery. You will be allowed to resume them as soon as surgery is over. Examples of these include ALL birth control pills and any hormone replacement medications.
- o It is critical to let our office know about ALL medications you take, even over the counter medications/supplements. Please be very wary of any over-the-counter herbal medications or herbal remedies that include things like St. John's Wort, ginkgo, garlic, or any other regimens that you may currently be taking. Because these products are not regulated by the FDA, some of these products have unpredictable and dangerous blood thinning properties. Please make sure that you discuss these medications with the surgeons or nurse practitioner at BMI of Texas at least two weeks prior to surgery.
- o Certain medications used to treat diabetes, blood pressure, and heart failure may also need to be temporarily stopped (or adjusted) during the period of time just prior to and following your surgery.
- o If you are taking oral prednisone, other oral steroids or medicines that suppress your immune system like methotrexate, you will need to stop for several weeks before your operation.

✓ **Tobacco**

- Tobacco, and in particular smoking, will increase all potential risks of surgery. Smoking can increase your risk of every complication, including deep venous thrombosis (this is when you develop a blood clot in your legs). It can also increase your risk of anesthetic complications.
- Smoking reduces the circulation, which in turn, can interfere with the body's ability to properly heal. For example, in the two new connections that are created with the gastric bypass, the nicotine that is contained in smoking or chewing tobacco can decrease the amount of oxygen being delivered to these areas, thus interfering with healing of these new connections. This can also affect the new staple line of the sleeve.
- Smoking also has well known negative effects on your heart and lungs, most notably coronary artery disease and lung cancer.
- Smoking can increase the risk of ulcer formation, especially with the gastric bypass.
- **At the Bariatric Medical Institute of Texas, the doctors will not operate on you if you are using tobacco. It is important that you stop tobacco for a minimum of 6 weeks prior to surgery. If you are unable to do so, surgery will have to be postponed. It may be necessary for you to ask your primary care physician to write a prescription for smoking cessation, such as the medication called Chantix.**

✓ **Do I need to take a bowel preparation before surgery?**

- It is not important that patients take a bowel preparation prior to surgery. Many patients are used to taking a medication to mechanically clean their bowels prior to other abdominal surgeries, but you do not need to do this with weight-loss surgery.
- You do, however, need to remain on a **strict liquid protein diet for 24 hours prior to your surgery**.

✓ **Special Diet prior to surgery, the Pre-Op diet (Also see diet section of this book)**

- At BMI of Texas, we instruct all patients to stay on a pre-op diet of 2 liquid protein shakes and one protein meal for 14 days prior to surgery. Our dietitian will recommend products that are available in our office and at local grocery stores.
- You will want to purchase your diet items from our office no later than your last appointment before surgery.
- You must also meet with dietitian to ensure you understand this pre-op diet.
- It is important that you remember that **after midnight the day before surgery, you must take nothing by mouth, except for the medicines that we have discussed at your last preoperative appointment**. You can take your medicines with a sip of water or coffee, and nothing more. It is very important that your stomach be completely empty when you show up on the day of surgery. **We also require a strict liquid diet the day prior to your surgery**.

✓ **What happens if I get sick before surgery?**

- o Should you develop a cold or persistent cough, fever, or any other significant change in your medical condition before surgery, please give your surgeons at BMI of Texas a call and we will discuss this. In most cases, we will not need to reschedule your surgery. We want you to be in the best shape possible for your surgery, and if your illness is minor and would not affect your anesthesia, then it is likely that we will proceed with surgery.

✓ **Your final consultation: 14-21 days prior to your surgery**

- o This appointment is referred to as your “Final History and Physical (Final H & P) with your surgeon or the nurse practitioner. During this time, we will answer any remaining questions and review your entire pre-operative testing results.
- o Watch the pre-op video before arriving to this appointment.
- o Link: <http://www.bmioftexas.com/patient-resources/video-suite/pre-operative-info>
- o Access this link by going to our BMI of Texas website and searching for the video suite. The pre-operative video will be listed under this portal.
- o We will go over technical aspects of the operation with you, your family, and anybody else that you may have brought with you. You are encouraged to bring people who will be part of your support circle during this journey.
- o At this visit, we will discuss your labs, which are usually done prior to this appointment.
- o Your medications for after surgery will be electronically prescribed to you during this appointment. Your meds should be waiting for you at your pharmacy. Please make sure that you keep your pharmacy information current in your medical records.
 - Note: For patients who have the sleeve or switch will also be prescribed Lovenox to take after surgery for one week due to being high risk of developing blood clots.
- o You will be taking another multiple-choice test during this visit. This is a pre-operative test to make sure that you understand completely what is coming up with your scheduled surgery.

****Gallbladder Evaluation and Possible Removal Related to Bariatric Surgery****

The gallbladder is an organ that is pear-shaped and in the right upper abdomen. The gallbladder stores and releases bile, a liquid that helps digest fats. If the bile contains too much cholesterol or waste products, it can harden into **gallstones**. If the tubes (ducts) carrying bile are blocked by gallstones, the gallbladder may become:

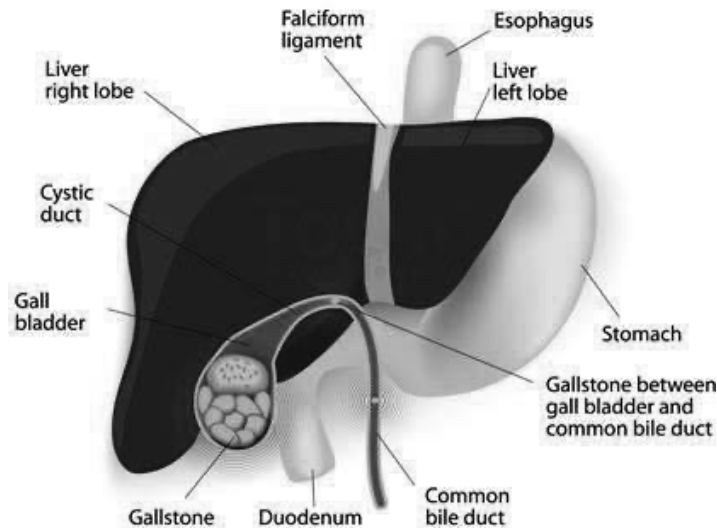
- Infected
- Inflamed
- Swollen and/or painful.

Gallstones are more common in people who have had episodes of rapid weight-loss, are more common in certain ethnic groups and are more common in women than men.

During your preoperative evaluation we will obtain an ultrasound of your gallbladder. If you are found to have gallstones on this test it will be **VERY IMPORTANT** to remove the gallbladder after you have healed from your bariatric surgery. In general, approximately 3 months after bariatric surgery we will need to schedule to have your gallbladder removed. The gallbladder surgery will be an outpatient procedure, in almost all cases. We remove the gallbladder during this time for several important reasons:

- This will prevent a risk of possible serious infection or complication.
- Allows us to have a planned approach to surgery, opposed to unplanned urgent/emergent surgery.

If your gallbladder ultrasound does not reveal stones, then we will start you on a medication to help prevent stone formation during your most rapid weight-loss (6 months). We will give you the prescription for this medication (**Ursodiol**) at your final preoperative appointment. We will instruct you to start taking this medication 2 weeks after surgery.



Day of Surgery

➤ What to expect on the day of surgery

- o On the day of surgery, we ask that you be at the hospital anywhere from 2 to 3 hours prior to surgery. This will depend on the facility that we use and the procedure you are having. On the day of surgery, you can expect to be fairly bored, and so you may find it helpful to bring your phone or a book. The reason we ask patients to arrive early for surgery is to allow for completion of hospital paperwork and preparation for the surgery, such as inserting the IV line. Additionally, it allows for plenty of time for last minute questions or concerns.
- o You can expect to see your surgeon on the day of surgery, and this will be about the same time that you meet your anesthesiologist. When you meet your anesthesiologist, you will be given a small dose of medication to help you relax. You may also be given some medication called Emend which is an anti-nausea medication.
- o At that time, you will be asked to change from your clothes into a surgical gown. It is important for you to remember that you will not be allowed to wear any jewelry or any other items on the day of surgery. Please remove any 'belly rings' or 'tongue piercings' before coming to the hospital. It is recommended that you only bring the bare necessities to the hospital. We recommend you not wear or bring any jewelry to the hospital. You should also not need cash while in the hospital. **Please leave one fingernail free of polish or artificial nails.**
- o You will also have an intravenous needle placed (usually in your hand or arm), and basic I.V. fluids will be administered.
- o Staff will ask you to urinate prior to going into the operating room.
- o Before surgery, you will be asked to sign a surgical consent, which outlines the risks, benefits, and alternatives associated with surgery which we have already discussed with you.

➤ What to bring to the hospital

- o Your ID and insurance card just in case these are requested at check-in.
- o You may want to bring a small overnight bag with basic toiletries. However, many of these things are provided by the hospital. You may want to bring your own pillow or perhaps your own bathrobe or pajamas. You may consider bringing your own slippers as well.

- o It is important that you bring comfortable, loose-fitting clothing, and you may want to bring clothing that you are willing to part with. Occasionally, clothes can get lost, and we would not want you to bring any valuable clothing to the hospital. If you do wear contact lenses, we ask that you leave the contact lenses at home and wear your glasses instead.
- o When you arrive at the hospital, you can expect to be asked several questions, often over and over again by different members of our medical team. We ask you to try to be patient and understand that the doctors, nurses, and other hospital staff are just doing their jobs and taking every precaution to ensure you have a safe surgery. It might seem a little annoying; however, when checking in for surgery at the hospital, surgical personnel cannot be too careful as to what operation you are about to undergo.

➤ **Anesthesia**

- o You will meet your anesthesiologist on the day of surgery in the holding area. Our anesthesiologists are very comfortable and very experienced in dealing with patients who have weight loss surgery. The anesthesia required for weight loss surgery is general anesthesia which means you will be completely paralyzed and asleep throughout your entire procedure. You will be given a sedative before going back to the operating room to help you relax, and when you go to the operating room, you will be given oxygen and any other medications that the anesthesiologist feels are necessary. Once you are asleep, the anesthesiologist will place something called an “endotracheal tube” through your mouth and into your windpipe to ensure that you will be able to breathe adequately throughout your surgery. This tube is removed **before** you wake up and most patients do not remember it.
- o Most patients do not recall or have any memory of going into the operating room after leaving the Pre-op Holding area. This is very normal. After surgery, you will wake up and you will be in the Recovery Room. You will then be taken to a regular hospital room, where you will wake up further, and be joined by your family.

Your Stay in the Hospital

➤ Recovery

- o Everybody recovers from surgery differently.
 - Patients who undergo a laparoscopic surgery are discharged from the hospital earlier than patients who undergo an open approach for the same operation.
 - If you are undergoing a duodenal switch or gastric bypass, you can expect to stay 1-3 nights in the hospital.
 - Sleeve patients may go home the same day or the next day.
 - Adjustable gastric band patients generally go home the same day.
 - If you have Medicare as your primary insurance, Medicare (not us) requires that patients remain in the hospital overnight for the lap band and at least 2 nights for the other weight loss surgery procedures.
- o You will find that on your first day after surgery, you will be “sore”, but you should not have a tremendous amount of pain.
- o It is also common to experience nausea immediately after surgery. At BMI of Texas, we are very generous with our anti-nausea medications. These are given intravenously, so please do not hesitate to ask nursing staff for them.
- o Very soon after surgery, you will have a therapist and/or a nurse who will help you walk up and down the halls. It is very important that you walk up and down the halls to prevent the formation of any deep venous thrombosis, or blood clots. You will find that, initially, it may be somewhat difficult to get out of bed, and you may require or request a “trapeze bar”, which will help assist you to get out of bed. You will find that each time you get out of bed, it should be easier. Early walking also helps relieve the gas pain that patients feel after laparoscopic surgery.
- o While you are recovering in these first couple of days, we will be very aggressive about working on your breathing. You will be given a device called an incentive spirometer, and this will sit at your bedside. This device will help your lungs expand to prevent pneumonia from developing. Especially while you are in the hospital, it is very important that you utilize this device. We ask that if you are watching TV, try to use the commercials on the TV as a reminder to practice with your spirometer. The more you use your spirometer and the more effectively you use the spirometer you will decrease the risk of developing pneumonia. The respiratory therapist or nurse will teach you how to use the device. **Take the spirometer home with you and continue to use it faithfully the first 2 weeks after you are home from surgery.**
- o Drain Tubes- Rarely, it is necessary to place drain tubes to collect and remove fluid from the abdomen. These drains typically come out before patients leave the

hospital. We do not routinely leave a tube inside our patient's nose. Rarely this might be done if the operation is particularly difficult or if the patient is experiencing complications.

- o You will also have labs drawn daily throughout your hospital stay.

➤ **Pain Control**

- o At the Bariatric Medical Institute of Texas, we are firm believers in pain control after surgery.
- o If you are feeling pain at the hospital, we encourage you to ask for pain medication. Most patients are set up with IV as well as oral liquid medication that is available every 4-6 hours. You may ask your nurse to administer this narcotic medication on an "as needed" basis. These narcotic pain medications can often cause nausea or constipation, so we ask that you use them only if you are having pain. It is important to us that you are comfortable during your hospital stay so that you can take part in activities such as walking, coughing, and deep breathing. These activities are very important for a smooth recovery. Additionally, there are additional medications available if needed, so don't hesitate to ask your nurse if you need some.
- o If you remain in the hospital more than one night, the IV medication will be discontinued once you can take medication by mouth. The pain medication we usually give is a Lortab or Hycet liquid, which is a combination of Tylenol and a narcotic called Hydrocodone. This medication is available at intervals of approximately 4 hours as you need it for pain.

➤ **Eating at the Hospital**

- o After surgery, you will be served clear liquids only. Most patients find they are not usually very hungry anyway during this time. This is normal and indicates that your "tool" is working as it is designed to. It is also the first time that you will really put the rule of "eating when you are hungry" into play. When you are eating your clear liquids, such as Jell-O, sugar free popsicles or sips of ice water, you will find that you will get full very quickly. Our practice uses liquids as the first stage. All your meals in the hospital will be SUGAR-FREE and non-carbonated. Most clear liquids are served at room temperature. Often, patients find they are unable to finish even the small cubes of Jell-O that are provided with meals.

➤ **Discharge**

- o Your date of discharge will be determined by how well you recover from surgery and when your surgeon feels it is best to send you home. Most patients spend 1-2 nights in the hospital. We do send some sleeve patients home on the same day.
- o If there are any special concerns that you may have about your discharge, you will first want to bring these up during your preoperative evaluation, but also remind the Nursing

Staff prior to being discharged. Examples include any assist devices like a walker or a home health nurse.

- o We recommend that patients have a supportive family member or friend stay with them for the first couple days following surgery. Additionally, it is a good idea to give some thought to your living environment or wherever it is that you will be staying after discharge. Remember, there will be no restrictions on you physically, such as walking upstairs or going to the bathroom on your own, but you should not drive for the first several days since you will likely be taking some pain medication.
- o Back braces and sequential compression devices (SCDs)



Reshaping Your Life™

Part III:

What to Expect and Watch Out for After Bariatric Surgery

- ❖ Common Discomforts and Monitoring Yourself After Surgery

WHAT TO EXPECT & WATCH OUT FOR

After Your Surgery

When to Call the Doctor

We want you to call the Bariatric Medical Institute of Texas if you have any concerns. **Please do NOT email or contact through social media if you feel you have a medical problem.** We urge you to use common sense, but do not be afraid to call us, 210-615-8500. In the event you need to go to an Emergency Room, we prefer you go to Methodist Specialty Transplant Hospital (8026 Floyd Curl Dr, San Antonio, TX). Northcentral Baptist Hospital is an option too. If you go to another hospital, our surgeons and NPs will not be able to take care of you there. To reiterate, if you go to another hospital, our staff will have no access to your medical records, your labs, or your radiology tests. Furthermore, if you are at a hospital other than the ones listed there is a strong possibility that the clinical staff will NOT be familiar with treating patients that have undergone weight loss surgery.

The following are examples when you should call your surgeon:

- ❖ Fever, anything greater than 101.0°
- ❖ Redness, swelling, increased pain around any of your incisions
- ❖ Drainage from incision.
- ❖ Shortness of breath or difficulty breathing
- ❖ Leg swelling
- ❖ Low urine output or very concentrated urine
- ❖ Chest Pain
- ❖ Uncontrollable nausea or vomiting
- ❖ Severe abdominal pain
- ❖ Racing heartbeat over 120 beats per minute while at rest

After you leave the hospital, you should find that you feel a little better with each new day. We encourage you to continue to keep a positive attitude and try to focus on the long-term outcome of your surgery. If you feel that you are not making progress as you expected or if you are starting to go “backwards” with your recovery, either mentally or physically, we want you to call our office immediately.

If you are experiencing any increase in swelling of your legs, you should notify us. Please be acutely aware if one leg looks more swollen than the other. This could be a sign that you are developing a blood clot in your legs, which can lead to a blood clot in the lungs which can sometimes be life- threatening.

Please pay attention to your urine output. You should be urinating to the point where you have clear or pale-yellow urine. If you find your urine color is becoming darker in color or has a much stronger odor than normal this could be a sign that your body is becoming dehydrated. Should this occur, you should

increase your fluid intake and if the problem persists, you should call our office. We may recommend that you come into the office or emergency room to be evaluated and receive IV fluids.

Wound Care

When you go home, you will find that your incision sites require a minimal amount of care. Any sutures that we utilize will dissolve underneath the skin. You may find that there is a clear film or glue on your incision, as this is very common for us to use or there will be adhesive strips. This glue will gradually peel off on its own over the next 2 to 3 weeks.

We ask that you **not** put any ointments on the incisions until instructed or after your first post-operative visit. It is important that you clean your incision sites with warm, soapy water every day. You can pat your incision dry with a towel. Please call the office if your incision becomes red and hot to touch or there is fluid leaking from the incision site. Once your incisions are well healed, which typically takes about 3 weeks, the surgeons of BMI of Texas are okay with you immersing yourself in water, such as a hot tub, whirlpool or swimming pool.

Managing Diabetes

It is our sincere hope and goal that you will no longer be a diabetic after weight loss surgery. Many patients have experienced resolution of their diabetes after weight loss surgery. Anyone that loses weight experiences improvement in their diabetes after surgery – even type I diabetics!

Gastric bypass, Sleeve patients and Duodenal Switch: After surgery and while you are in the hospital you will be on a ‘sliding scale’ and you will be given insulin according to how elevated your sugars are. The plan is to be discharged from the hospital taking NO diabetic medications for 2-3 weeks – or the time of your follow up appointment. During this time, we expect you to take your finger-stick glucose level twice daily [like you were doing before surgery] and to monitor the levels. If your sugars are staying consistently above 175-200, then we ask that you contact us, and we will make some arrangements for you to resume your medications at usually ½ the scheduled dose that you were at before.

Feeling Nauseous

Being nauseous is common after surgery. This can be related to any number of things, but it is mostly related to the manipulation of your new stomach and your bowels at the time of surgery. You may find that nausea can be triggered by many problems, including dehydration, overeating, or being overly sensitive to foods and odors that you used to like before surgery. Nausea can also be caused by your pain medication, or the fact that you haven’t eaten in a long time. It is typical to have some nausea during the first several days and even weeks after surgery. This is common. Nausea can be treated with several medications, and we are happy to provide a prescription for one or more of these as needed. If your nausea is so severe that you find yourself unable to drink enough liquids to keep your body well hydrated, we ask you to contact our office as you may need to be admitted to the emergency room or hospital to receive fluid through an IV until your body normalizes.

Vomiting

Persistent vomiting or bilious (green) vomiting is **never** normal after surgery. Vomiting up the food you just ate is sometimes associated with eating inappropriate foods or eating too fast. For these reasons, we ask that you follow the guidelines of the dietary sections very carefully. It is important

that you are evaluated by one of the surgeons of BMI of Texas if you are persistently vomiting, because we want to make sure that you do not have an obstruction. Having a bowel obstruction after weight loss surgery is very serious and it can be life threatening. For this reason, if you are vomiting, we ask that you call your surgeon. You might be asked to come to the hospital so that we can evaluate you. We may ask you to undergo a CT scan to ensure that everything is OK. Please note that vomiting is different than “spitting up.” Many times, patients that have persistent nausea, will find that they are “spitting up” a frothy, clear fluid that is very similar to saliva. Band patients will also experience this as well. This is different from vomiting. Sometimes there may be times where you can drink or eat, and food will actually go through, and you will still have problems with spitting up. **IF VOMITING CONTINUES MORE THAN 2 OR 3 EPISODES, WE WANT YOU TO CALL US IMMEDIATELY.**

Gas

Some patients will experience discomfort due to gas pains after surgery. Anti-Gas agents such as Gas-X will help with this problem.

Occasionally, patients may experience unusually pungent gas. This is usually the result of combinations of diet and supplement intake. At times this can be socially challenging. Fortunately, there is a product available that will quell the unpleasant odor. Devrom is a medication that is available over the counter and is a highly effective way to combat this issue. You can learn more at www.devrom.com

Dehydration

Dehydration occurs when you do not drink enough fluids. Symptoms of dehydration can vary however there are usually signs that can be detected before dehydration becomes serious. It is very important that you pay attention to your urine amount, as well as the color of your urine. Urine color should be pale yellow to clear. If it becomes very dark in color or stronger in odor, then you are probably starting to become dehydrated. You can also experience nausea, fainting, dizziness, rapid heart rate, or even “passing out” from being dehydrated. If you feel like you are becoming dehydrated, please let your surgeons know. Being dehydrated can be easily fixed with some IV fluids. Sometimes, it requires an overnight stay in the hospital. One of the best ways to avoid dehydration is to consume plenty of water or other sugar-free, caffeine-free liquid. The easiest way to do this is to carry a water bottle and “sip” all the time. You will not be able to guzzle water like you used to before surgery, and therefore it may take some active reminders for you to get enough fluid. This is also one of the reasons we ask that you avoid caffeine immediately after surgery. Caffeine causes increased urine production and can lead to further dehydration.

The amount of fluid that you are required to drink depends on your weight. In other words, the heavier the person, the more water that person needs to drink to stay adequately hydrated. A rough guide would be to drink a minimum 64 ounces of water a day. Again, the best way to tell if you may be developing dehydration is to pay close attention to the number of times that you are urinating and the color of your urine. **Clear = Good Dark = Bad**

Frequently people get dehydrated after weight loss surgery. We may ask you to come into the hospital for a night or two and receive some intravenous (iv) fluids. This is usually not a big deal. Patients, however, often feel frustrated by this and take this as a sign that things are not going well or that they are doing something wrong. Please do not feel this way. Having you in the hospital or having you go to an outpatient infusion center is only precautionary and, in most cases, patients are glad that they came in.

Infusion Centers:

When patients are dehydrated, we refer them to an infusion center to help with IV fluids. The following center is listed for your information. You should not go directly there. You must visit our office for an examination and, if needed, you will be referred to:

Paragon Healthcare Infusion Centers

5282 Medical Drive #206

San Antonio, TX

P: 210-366-4358

F: 210-366-4896

155 E. Sonterra Blvd #111

San Antonio, TX

P: 210-485-3700

F: 210-202-5082

Bowel Habits

Initially after surgery, you may find that you are alternating between constipation and loose bowel movements. This problem will go away within several weeks after surgery. It is very common to experience constipation because of the narcotics and the anesthesia that you have been receiving. It is also common to be experiencing loose stools, because of the new plumbing that you have. Regardless, you will find that with time, you will have fewer bowel movements than you had prior to your weight loss surgery. The reason for this is that you are not eating as much food, and thus there is less ‘material’ to make stool. The exception to this is the duodenal switch patients that may experience very frequent bowel movements and diarrhea.

If you are concerned about your bowel habits and they continue to be a problem, you may want to start with a food journal to see if there are any food triggers that are causing your problem, such as lactose intolerance.

Constipation

Constipation is very common after weight loss surgery, particularly after a gastric bypass. Duodenal switch patients will seldom have constipation. Symptoms of constipation are painful bowel movements, difficulty passing stool, and/or when your stool is very hard. Constipation is often due to narcotic usage after your operation. It can also be due to inadequate water intake or insufficient amount of fiber in your diet.

Remember also that amount of food you are eating is much less, and therefore you have a lot less material to make stool. For these reasons, your surgeons ask you to take supplemental fiber such as over the counter Benefiber. Please know that quite often, patients who have weight loss surgery need to take a fiber supplement to have a regular bowel movement every 2 to 3 days.

Weight loss surgery patients do NOT need to have a bowel movement daily. If you are having bowel movements every 2-4 days, **and** your stool is soft, brown, and not difficult to push out, then you are normal. In contrast, if your stool is very hard, you are on the toilet a very long time, your bowel movements are painful, your bowel movement makes you bleed, or you have to strain a lot, then you are probably experiencing constipation. Things that will improve the regularity of your bowel movements and make them softer are the following:

- 1) Increase your fluid consumption. This includes water or any other zero-calorie liquid such as Crystal Light.
- 2) Increase fiber consumption by regularly taking over the counter fiber supplements such as Benefiber. You can start this once you are eating regular food.
- 3) Magnesium oxide. Take 800mg in the evening. If no bowel movement, continue this regimen. If a bowel movement, decrease to 400mg daily.
- 4) Take mineral oil. Take 1-2 teaspoons once or twice daily – this will draw water into your colon and soften your stool.
- 5) Colace. This is available over the counter in a suppository or pill form – it should be initially taken once or twice daily; however, it can be taken more frequently if necessary.
- 6) Eat more vegetables.
- 7) Milk of Magnesia. This is not to be taken regularly but may be required occasionally.

You should not hesitate to call the office if your problems persist or if the above measures do not help.

Coumadin

If you are taking Coumadin before surgery, resuming it after weight loss surgery can be tricky. It is important that we coordinate this with your hematologist or whomever the doctor is that is managing your Coumadin dosing. Please remember that your Coumadin dosage will change as you lose weight. If you are not careful you can be ‘over anti-coagulated’ and put yourself in serious harm or danger by having blood that is ‘too thin’.

It is imperative that you have your INR level checked every week for the first 6 weeks after surgery. We realize that this is not normally what you have done, however, this is the time you are most rapidly losing weight and you are the most susceptible to overdosing on Coumadin – even if this was a dose you have taken for years without a problem.

Should you experience any easy bruising or bleeding or blood from your rectum, please notify your surgeon immediately.

Anemia

Anemia is very common after weight loss surgery, particularly with the gastric bypass and duodenal switch. The area of the stomach and small intestine, which is bypassed, is also the area, which is most responsible of the absorption of B₁₂, Iron and Folate. If you do not take a daily vitamin supplement, you may find that you will develop anemia. The BMI team recommends all patients take Thorn Multi-Vitamin supplements which can be purchased in our office. Because anemia can put extra strain on your body, it is important that you follow-up on a routine basis. If you have anemia on your preoperative evaluation, we will usually request that your primary care physician evaluate and prior to

surgery. If it persists, we will have your doctor treat your anemia while you are in the hospital. If you are undergoing adjustable gastric banding, you will have to take a more active role in treating your anemia both before and after surgery.

Signs of iron deficiency anemia, may include decreased work performance, feeling weak, fatigue, dizziness and even shortness of breath. Occasionally, it can be very difficult to treat an iron deficiency anemia with oral supplements only. It is common for weight loss surgery patients to be referred to a hematologist for an “Iron Infusion.” In some cases, it can be a 6-to-12-hour process and it may require an entire day off of work, but it will bring up your iron stores to more normal levels and it will make it easier for you to maintain these levels.

Hair Loss

Hair loss is very common after rapid weight loss. The hair loss is usually temporary, and your hair will grow back. This can, however, be somewhat disheartening and worrisome, and in some rare cases may even require the temporary use of a wig. There have been no specific indicators or predictors for who will experience hair loss or to what degree. One theory is that the rapid weight loss combined with your body being in a perceived starvation mode causes the hair to thin. Again, this hair loss is only temporary.

Although there are many products sold over the counter that claim to prevent or reverse hair loss after weight loss surgery, none of these claims have been proven scientifically. Use caution in purchasing these quick cure remedies and again, ask clinic personnel for advice or recommendations as needed. It is very important that all patients keep up with their vitamin and micronutrient intake and eat the required amount of protein daily. These steps will help minimize any hair loss you may experience.

Getting Pregnant/Sexual Activity

When you feel that you are physically, emotionally, and psychologically ready to resume your sexual activity, then you may go ahead. **We encourage the use of contraception for at least one year.** Becoming pregnant while your body is already under significant stress, can put both the mother and the baby at increased risk for complications.

That being said, unless you have experienced a serious complication or have ongoing nutritional deficiencies, it is generally very safe for you to become pregnant 12 to 18 months after your weight loss surgery. It is also true that once you have lost the weight, you will be able to carry a pregnancy much easier and with less risk of gestational diabetes, preeclampsia, and pre-term labor. We encourage you to plan this with either your primary care doctor or your OB/Gyn. Please remember, that if you have had weight loss surgery and you decide to get pregnant sometime after your surgery, it is **critically important** that you take supplemental Folate in addition to a regular vitamin that has Folate in it. It is imperative that you provide enough Folate for the fetus to prevent neural tube defects. It is also important to know that you should only be taking the multi-vitamin once daily when pregnant as a twice daily regimen will provide too much vitamin A which can be harmful to a fetus.

Your band will probably need to be loosened if you become pregnant. Do not worry. We can and will easily restart the adjustment process after the baby is born.

In summary, please try to avoid getting pregnant for at least a year after undergoing weight loss surgery.

Gallbladder (See Note in Section II: Before Your Surgery)

Gallstones can develop because of rapid weight loss. Therefore, weight loss surgery patients can develop gallstones. They happen in approximately 6% of patients after weight loss surgery. For these reasons, we ask that you take a medication called Ursodiol or Actigall to help prevent the stone formation. We ask that patients take this medication for 6 months after surgery to decrease the risk of developing stones. Sometimes, stones form anyway, and if they do, we strongly recommend that you have your gallbladder removed. It is **MANDATORY** that patients with gallstones have their gallbladder removed especially if they have had (or planning to have) a **gastric bypass** or a **duodenal switch**. Because of the results of your new anatomy, it is very difficult to assess your bile duct. If stones are detected at your preoperative evaluation, we usually plan to take your gallbladder out approximately 3 months after your initial weight loss surgery. We ask that you lose weight so that your gallbladder surgery and your recovery will be much easier at the second surgery. Your BMI of Texas surgeon will perform the gallbladder removal surgery laparoscopically.

Ulcers

Ulcers occur in approximately 4% - 8% of patients. Patients who smoke increase their risk of developing ulcers. For this reason, the BMI team is strongly opposed to any patient resuming smoking after surgery. Ulcers occur for several different reasons and unless the patient is smoking, drinking excessively, or taking NSAIDS, or steroids, they are usually not the fault of the patient. Due to your new post-surgical anatomy, you are more susceptible to ulcers than before surgery. Ulcers are a risk due to your new anatomy, and it is something that you should be aware of. If you develop pain in your mid-epigastric region, underneath your breastbone, and the pain is made worse with liquids, then this is often a sign that you are developing ulcers. The diagnosis is usually made with the help of an outpatient procedure called an EGD or endoscopy. Ulcers are treated with medication for approximately 3 months. Remember, it is very important that you stay away from non-steroidal anti-inflammatory drugs (NSAIDS) such as Ibuprofen, Aleve and Aspirin. These medicines will cause ulcers.

Excess Skin

If one has a problem with loose skin before surgery, this problem is often more pronounced after surgery. In many ways, this is a good sign and means you are doing something right and that you are losing weight. Younger patients tend to have skin that will “bounce back” or retain the elasticity much better than older patients, however, exercise and genetics play a part in the amount of loose skin a patient has. Sometimes excess skin can become a problem, not only socially, but in terms of hygiene and health as well. Infections can develop in the overlapping skin folds and skin can rub together and cause irritation. For this reason, some people choose to have cosmetic surgery to remove their excess skin. It is important to understand that many insurance companies will not cover this procedure.

Alcohol

Alcohol causes gastric irritation and can also cause liver damage. During periods of rapid weight loss, you may find that you will become very easily intoxicated. It can be very dangerous if you consume alcohol, especially with the gastric bypass and duodenal switch. As a reminder, alcohol in and of itself has no nutritional value, and it is very high in calories. It is also a preferred fuel source of the liver leaving consumption to slow or even stall weight loss. For these reasons, we ask that you refrain from alcohol for a minimum of six months after any form of weight loss surgery. If you decide to

consume alcohol after six months, we encourage you to be very careful. Particularly with the gastric bypass and duodenal switch, you will find that you can become very intoxicated very quickly. The profoundness of your intoxication can be startling. With the adjustable banding or the sleeve gastrectomy, it is also possible to become intoxicated more quickly, because you will not have the body mass that you had prior to your surgery. Alcoholic beverages can also cause a “Dumping Syndrome.”

Dumping Syndrome

Although not a risk, one of the features of the Gastric Bypass is the “Dumping Syndrome.” This is when one eats foods that are high in sugar, particularly refined sugar. This can cause a very unpleasant sensation of a rapid heart rate, nausea, vomiting, abdominal pain, and diarrhea. This occurs because the intestines are not used to seeing this sugar this early in the digestive process without being partially digested. The intestines will react aggressively for the first year after surgery. For many patients, this is an advantage, and it helps them modify their eating behaviors. It is important to know that you can “dump” from anything that has sugar, even over-ripe fruit! Often, there are hidden sugars in food like Chinese food or sauces that can also cause an unexpected dumping.

Taking Pills after Surgery

It is often thought that patients cannot eat solid food and must crush their pills to consume them. This is a myth. You will be able to swallow your pills without difficulty after surgery. This is important as many medications are now time release preparations. These time release medications do not function normally if crushed. BMI patients DO NOT need to crush their pills after surgery.

Blood Thinning Medications

If you have a BMI that is greater than 60, we will be placing you on blood thinning medications for a month after surgery. This will be coordinated with a hematologist in most cases. The hospital will teach you how to administer these medications to yourself and we will help set this up for you while you are still in the hospital. The reason for doing this is because even though your surgery was several days prior you are still at risk for developing a blood clot for several weeks after surgery. For these reasons, you will continue these meds for about a month and then you will stop.

If you already are a high-risk patient whereby you have a history of blood clots (aka deep venous thrombosis, or DVT) or if you have had a PE (aka pulmonary embolism) than you will also be placed on outpatient blood thinning medications after surgery. This may be Lovenox or Coumadin and most likely we will want to coordinate with your hematologist. Regardless, you will need to have your blood checked VERY REGULARLY for the first 6 months after surgery. Because you will be rapidly losing weight, your dosage of your blood thinning medications will change—if they are not monitored regularly than you could become ‘over-anti-coagulated’ and your blood would be too thin. This can be very dangerous.

Going back to work/Return to Regular Activities

In terms of physical activity after surgery, please know that there are no real restrictions on you after surgery. So, in other words, when you leave the hospital, you can feel free to shop, climb stairs, have sex, lift, play with your kids, work on your car, or work in the garden. These activities will not damage or harm anything that was performed surgically.

The expected time to return to work varies, depending on the person. Everyone's motivations for returning to work are different. Some of our patients have taken up to six weeks off because of the arrangements made with their employer. Overall, one can expect to return to work in about 2-4 weeks. This obviously depends on the person, and the type of operation that one has. It is not uncommon for a patient to have to have an adjustable gastric banding on a Friday, with the intention of going back to work on Monday. However, this is not always the case. With the gastric bypass and duodenal switch, we ask that all patients try to arrange for at least 2 weeks off prior to going back to work. The reason for this is that many patients are very tired after undergoing weight loss surgery, and even if things go well, it can be very difficult for you to sustain yourself through an entire day of work.

Physically, technically, and surgically speaking, it would be okay for you to return to work even a week after surgery, but most patients do not do this, due to the fatigue they experience from their 'designed starvation.' Overall, we encourage you to go back to work as soon when you feel you are ready, but we do recommend that you do not return to work for at least a week in case complications arise.

Complications are very infrequent. However, if they do happen, they may require surgical repair, and you would certainly want this built into your work arrangements. It is very common for patients to go back to work full-time within two weeks of having their surgery. We would advise you, however, not to rush back to full-time work too quickly, and if possible, go back to work part-time (for half days) once you do return. This would be ideal.

You also may have forms that we need to complete for you called Family Medical Leave Act or FMLA forms. These forms are obtained from your employer and can be brought to our office where our office staff will assist you with completing them. There is a small fee to have the forms filled out. Please obtain these forms and bring them to us at your Final H & P or get them to us as soon as possible after your surgery. Usually, there is a very quick turnaround time of 72 hours for the forms.

Feeling Tired [AKA: "Hibernation Syndrome"]

Hibernation syndrome refers to the period after a weight loss procedure during which patients may experience extreme fatigue, sleepiness, and energy depletion. This is caused by the fact that after any weight loss procedure, patients are generally unable to consume any significant number of calories. Frequently, a liquid diet is necessary for several weeks after your operation to allow for healing. During this time of adjustment, rapid weight loss occurs. This often comes as a shock to your body which may have been used to receiving several thousand calories a day. The body adapts in many ways.

First, your body will try to conserve fuel. For example, patients often tell stories of waking up in the morning at home and they feel great. Then they go take a shower and they are so tired that they can barely wash their hair. Some patients have described an incredible urge to go lie down and take a nap. While this may sound alarming, this is quite common. This is primarily a result of the decreased caloric intake. In other words: designed starvation. With time the body adjusts, and your metabolism equilibrates and eventually you will end up with even more energy than you had before surgery.

Increasing protein liquid shakes or drinks can help treat these symptoms and make you feel better faster. To a certain extent, every weight loss surgery patient can expect to experience some or all these symptoms. Understand that you are not alone. The BMI team stands ready to support you through this period. If at any time you feel as though your symptoms are lasting longer than expected or worsening, please contact our office right away.

Think of Hibernation Syndrome as the body's attempt to conserve as much energy as possible. If you stop and think about it from a practical standpoint, the human body has reacted this way for centuries, allowing people to live through famines, snowstorms, and other times when there has been a shortage of food.

The length of time one experiences Hibernation Syndrome varies from patient to patient. It can depend on your age, the speed of the weight loss, how much weight you lost before your surgery, and how active you are after surgery. What is important to remember is that **Hibernation Syndrome is a normal and an expected part of the journey.** Keep reminding yourself of the fact that each day should become easier. Try to stay focused on your nutrition and physical activity and this will keep you on the right track. Try to push through the lack of motivation by taking a short walk outdoors or perhaps just spending some time with friends and family. **In other words, walk and work your way through this phase.** Rest assured that forcing yourself to walk or to exercise will not harm you in any way. Also, remember that surgery is not the end of your journey, it is the beginning, and the BMI team will assist you in any way possible.

Depression

Some patients can feel depressed in the weeks following weight loss surgery. You may feel like sleeping all the time (read hibernation syndrome above) and some patients go through periods where they experience crying spells and some may ask themselves, "What have I done to myself?" This is normal. We encourage you to continue to take your anti-depressants and anti-anxiety medications during this period. If after 6 months, you feel better, then you can talk to your PCP or psychiatrist about decreasing your medications if that's something you want done. **If you feel like you are getting worse, please reach out to us for help.**

Our advice to you, the patient, is to try to relax and understand that while concerning, these feelings are usually only temporary and a result of the stress of the surgery on your mind and body. Participating in our support options can also be very helpful.



Part IV: Nutritional Expectations and Surgery

- ❖ Reach Out to Our Registered Dietitian
- ❖ Vitamins for Weight Loss Surgery
- ❖ Pre-Operative Diet Plan
- ❖ Post-Operative Diet Plan
- ❖ Commonly Asked Diet Questions

Registered Dietitian

Katie Lightfield, MS, RD, LD
Registered Dietitian



Born and raised in Houston, Texas, Katie attended the University of Houston, obtaining her bachelor's degree in Nutrition and Food Science in 2014. In 2020 she completed her master's degree in Human Nutrition at Texas State University in San Marcos, Texas. During this time, she also completed a comprehensive Dietetic Internship through Texas State University, gaining experience in community, foodservice, and clinical nutrition. She is always seeking new educational opportunities to enhance her ability to serve her patients and plans to obtain her Obesity and Weight Management certification. Katie is passionate about helping others and looks forward to building long-term relationships with her patients, celebrating each milestone on this journey to a healthier lifestyle.

Embarking on a weight-loss journey is a very personal decision, and Katie recognizes that every patient is unique. She will partner with each individual to develop a customized nutrition plan with goals that are not only achievable but will result in positive habits that will last a lifetime. Katie is passionate in her belief that food deprivation is the enemy of a healthy lifestyle; and will help her patients incorporate small changes in diet and exercise that will help them feel satisfied and in control of their destiny.

Nutrition Expectations & Surgery

Before Surgery

Two weeks prior to surgery you will start your pre-op diet. **The diet is the same regardless of what operation you're having.** Even if you've done a great job of losing weight already, we ask EVERYONE to stick to the 14-day pre-op diet. This will induce more weight loss and further shrink your liver to increase exposure of the stomach in the operating room (ultimately ensuring a safer surgery!).

REMEMBER: no food 24 hours prior to your surgery- only clear liquids and 3 protein shakes

After Surgery

Immediately after surgery, BMI of Texas patients are asked to follow a special liquid diet for either 2 or 3 weeks (depending on which surgery you had—please see post-op diet guidelines for more details). You will slowly begin to advance to a more regular diet according to the post-op diet progression laid out for you in the next couple pages. Gently remind your family and friends that you are following the directions of your surgeon, staying well hydrated, and that forcing food down could cause serious post-op complications if they are insisting you need to eat during this time. Initially you will not be hungry after surgery, and this is normal. Nutritionally you will be just fine not eating for several days as long as you stay well hydrated.

Initially while on your liquid diet you will eat things that include clear liquids (i.e. sugar free Jell-o, sugar free popsicles, broth, water). As you progress over the next 2-3 weeks (according to your specific post-op diet plan) you will begin taking in protein shakes and thicker soups.

Towards the 3rd or 4th week post-op you will begin eating things such as scrambled eggs, cottage cheese, tuna/chicken salad, etc.

No matter what literature the hospital gives you at discharge regarding diet or vitamins, always follow the BMI Post-Op Dietary Guidelines.

You will discuss the pre & post-op diet in detail with a BMI Dietitian.

RNY

After a RNY, you will continue to work on making changes to your eating habits (i.e. protein, high fat, low carb diet). The size of your stomach is a little bit bigger than the size of your thumb; this should remain constant and consistent through the rest of your life and therefore will limit the amount of food you can eat. It is not uncommon for patients about a year out from surgery to feel as though they can “eat more.” This is usually because the stomach is a dynamic organ and can “accommodate” more food.

As you may recall, with the RNY, a portion of your stomach, as well as the duodenum (the small intestine that has been bypassed because of your surgery) is no longer available to your body to absorb calcium, iron, folate, and B12. Therefore, it is **imperative** that you take your daily complete multi-vitamins. See below for vitamin information.

Sleeve Gastrectomy & Duodenal Switch

After a Sleeve and Duodenal Switch, dietary modifications are required—overall your diet will be high fat, moderate protein, and low carb. Immediately following surgery, you may only be able to consume 1-2 ounces at one sitting. After about 3 months you may be able to consume anywhere from 4-8 ounces of food. It is not uncommon for patients about a year out from surgery to feel as though they can “eat more.” This is usually because the stomach is a dynamic organ and can “accommodate” more food. Remember to chew well, not to drink with your meals or for an hour after a meal and aim to eat 3-5 small meals per day.

Fat malabsorption is a component of the **Duodenal Switch**—therefore, it is **REQUIRED** that you take a fat-soluble vitamin (vitamins A, D, E, and K) **DAILY**. This will be in addition to your post-op vitamin regimen listed on the following page.

Band

Nutritional expectations for the Band are very similar to the RNY & Sleeve. It is important to follow the post-op dietary guidelines recommended by BMI of Texas. We do not want you eating solid foods which may make you nauseous or have a difficult time going through the Band (even though it is empty). Food may cause you to have nausea or even vomiting which could dislodge a freshly placed Band from its location.

Foods such as pasta, bread, and other starchy foods tend to get very “gummy” and will form a ball that is very difficult to pass through a band, especially after several adjustments. This is an effect that is bittersweet since we are trying to stay away from carbohydrates in general.

Vitamins after Weight Loss Surgery

We take supplements after surgery for three reasons:

1. To get adequate vitamins and minerals while eating less food.
2. Help prevent deficiencies that you are at greater risk for since your procedure.
3. In some cases, to treat a nutritional deficiency.

Prior to Weight Loss Surgery

Begin taking the following:

- Bariatric Multivitamin
- Vitamin B12 (1,000 mcg/day)
- Vitamin D3 (5,000-10,000 IU/day)
- Probiotic

After Weight Loss Surgery

Vitamins are needed every day for life. They are important long-term to prevent any deficiencies.

Begin vitamins within the first week post-op:

- Bariatric Grade Multivitamin with Iron
 - o *If your multivitamin does not have iron, you will need to take an iron supplement of 45 mg per day.*
- Vitamin B12 (1,000 mcg/day)
- Vitamin D3 (5,000-10,000 IU/day)
- Probiotic

At 6 weeks post-op start Calcium Citrate

- o Switch: 1800 – 2400 mg/day
- o Sleeve/Bypass: 1200 – 1500 mg/day

****TAKE CALCIUM 2 HOURS APART FROM YOUR MULTIVITAMIN W IRON OR IRON SUPPLEMENT****

These vitamins are available in a discounted bundle package at our office. The bundle package includes Bariatric Advantage Multi EA Chewable Tablets, Thorne D3, EndoMune Probiotic, and bariatric grade Calcium Citrate Chews.

Additionally, you can purchase vitamins through our online vitamin store!

SIGN UP FOR AUTOMATIC RE-ORDERS

- Save time—Automatic order & delivery.
- Save money— Free shipping on every order.
- Never run out
- Make order changes anytime, online or by contacting Bariatric Advantage® at least one week before the Automatic Re-Order is processed.
- Modify delivery schedule anytime.
- Cancel Automatic Re-Orders Program anytime.
- 100% satisfaction guarantee



Long-Term Nutritional Follow-Up

It is important that you keep a food journal long term so that you continue to be keenly aware of what you are eating. Successful habits include eating at least 3 meals/day and snacks as needed, focusing on protein first, non-starchy vegetables second, and non-refined complex carbs last. It is also important to ensure healthy fats at each meal to help with nutrient absorption along with satiety and fullness.

Avoid all beverages that are high in sugar and/or have carbonation.

Carbonation can lead to abdominal bloating and discomfort. **Drinking with straws and sugar free gum are OKAY.**

After surgery, it is very common for patients to say that they no longer have the same desires or cravings for food that they had before surgery. Honestly, there is no scientific explanation for this, but there are some foods that may taste different or sweeter after surgery. In essence you are learning to live by the motto, “eat to live” not “live to eat.”

We recommend that all patients make it a priority to meet with the dietitian at the recommend times after surgery to achieve maximum weight loss results and to ensure there are no nutritional deficiencies developing. Meeting with the dietitian provides you opportunities to identify challenges and assist you with overcoming obstacles that you may encounter on your weight loss journey.

Please see the **BMI of Texas Follow-Up Schedule** at the beginning of your book for the recommended schedule for follow-up with BMI after surgery. **Follow-up is KEY to your SUCCESS.**

BMI Support Group

BMI of Texas has a **FREE** monthly support group that falls on the first Monday of every month via Teams at 6:00 pm. There are different topics presented at each meeting and anyone is welcome to join! Please stay up to date of these via the online support group mentioned below.

BMI of Texas Support Group on Facebook

Go to BMI of Texas Support Group. Request to join our Facebook Support Group to receive and give support and encouragement. Share with other BMI of Texas patients as they journey through weight loss, post encouraging words and before and after pictures. Use as a place to share low-carb recipes and healthy living tips. **Personal medical questions should not be shared in the group.**

Pre-Operative Diet

Start pre-op diet 2 weeks (14 days) prior to surgery.

1 small meal and 2 protein shakes daily.

- 3-4 oz of a lean protein (about 3/4th cup)
- 1-2 cups of non-starchy vegetables
- 1 Tbsp of healthy fats

Limit Snacking

- If you need a snack, you can have:
 - sugar-free Jell-O
 - sugar-free popsicles
 - broth
- No more than 4 snacks per day

48-64 oz fluid/day

- ALL sugar free
- Work on decreasing caffeine and carbonated beverages
- Preferably water – at least 50% of your overall intake

No fluids with meals!

- Stop drinking 15 minutes prior to eating, avoid fluids during meals, and wait 30-45 minutes post-meal to resume drinking

The day before your surgery **no solid food**. Just 3 protein shakes for meals.

- **Remember nothing to eat or drink starting at midnight**

• If you have diabetes:

- You will need to monitor your blood sugar levels frequently.
- Hypoglycemia (or low blood sugar) is a potential issue with an aggressive dietary plan.
- Please contact your primary care physician or BMI medical professional to notify him or her that this aggressive diet may require medication changes.

• If you have high blood pressure:

- Watch your blood pressure readings closely!
- You may need to contact your PCP so they can assist in monitoring your blood pressure.

Please do not hesitate to contact our office for any questions! Preferred method of contact is via email or through the portal.

Front desk : 210-615-8500

Katie.lightfield@bmioftexas.com

Post-op Diet Overview

Lap Band:

Stage of Diet	Duration
Stage 1a: Clear Liquid	1 st Week
Stage 1b: Full Liquid	2 nd Week
Stage 2 and 3: "New Normal"	3 rd Week +

Gastric Bypass (RNY):

Stage of Diet	Duration
Stage 1a: Clear Liquid	1 st Week
Stage 1b: Full Liquid	2 nd Week
Stage 2: Soft & Moist Protein Foods	3 rd & 4 th Week
Stage 3: "New Normal"	5 th Week +

Sleeve Gastrectomy, Duodenal Switch, Overstitch:

Stage of Diet	Duration
Stage 1a: Clear Liquid	1 st Week
Stage 1b: Full Liquid	2 nd & 3 rd Week
Stage 2: Soft & Moist Protein Foods	4 th & 5 th Week
Stage 3: "New Normal"	6 th Week +

In the Hospital

In order to make your hospital stay and post-surgical recovery as smooth and comforting as possible, it is important to follow these instructions to prevent complications:

1. Begin to ask your nurse for oral pain medication over IV medication as quickly as tolerated.
2. Use the spirometer as much and frequently as possible!
3. BE PROACTIVE: Reach out to your nurse to help get you walking!
 - a. Patients who walk early after surgery have the best recovery times.
4. Look out for your beverages:
 - a. Avoid anything carbonated, caffeinated, or sugary drinks.
 - b. Notify your nurse if something looks wrong on your tray.



Stage 1A: Clear Liquid Diet

This stage is designed to promote healing & maintain hydration following your surgery. Anything above sugar free clear liquids may put too much pressure on your fresh staple line. Clear liquids minimize the need for digestion & lessen the production of solid waste, allowing your gastrointestinal system time to heal.

Weight Loss Surgery	Duration
Lap Band	1st week
Gastric Bypass	1st week
Sleeve, Switch & Overstitch	1st week

General Guidelines:

- ALL fluids should be sugar-free, non-carbonated, and decaffeinated.
- Aim for 48-64 oz. of fluids per day.
 - Sip liquids slowly and in small amounts throughout the day.
 - Using a straw is OKAY and can help train your body to sip slowly.
- Begin taking vitamins this week - **Bariatric MVI, B12, D3, and probiotic.**
- Begin medications as instructed by your surgeon.

Acceptable Fluid Choices:

- **Water**
 - Add lemon, cucumber, or strawberry slices; Hint water.
- **Electrolyte Drinks**
 - Propel Zero, Vitamin Water Zero, Powerade Zero, Nuun Tablets, Gatorade Zero
- **Decaf Coffee or Tea**
 - Arizona Diet Green Tea, Diet Snapple Tea, Diet Lipton Tea
- **Sugar-Free (SF) Flavorings**
 - Water drops, Mio, Wyler's Light, Crystal Light
- **Sugar-free Popsicles and Jell-O**
- **Broth (choose SALTY broth)**
 - Chicken, beef, vegetable, bone, Better Than Bullion
- **Clear Protein Drinks**
 - **Flavorless protein powder**, Nectar, Healthwise, Protein2O, Premier Protein Clear



Stage 1b: Full Liquid Diet

This stage incorporates thicker liquids, such as protein shakes— it will provide you with energy that will potentially decrease any fatigue or tiredness that you may be experiencing.

Weight Loss Surgery	Duration
Lap Band	2 nd Week
Gastric Bypass	2 nd Week
Sleeve, Switch, & Overstitch	2 nd & 3 rd Week

General Guidelines:

- Protein shakes will give your body the building blocks needed to heal from surgery:
 - ½ cup servings 5-7 times per day
- **Aim for a protein goal of ≥60 grams of protein per day.**
- Remember to sip SLOWLY.
 - Using a straw is OKAY and can help train your body to sip slowly.
- Remember – **no drinking with meals; wait 30 minutes after to resume drinking.**
 - Protein shakes, soups, puddings are considered your meals during this stage.
- Continue taking vitamins and medications as instructed.

Acceptable Fluid Choices:

- ALL clear liquids from *Stage 1a*
- Protein Shakes
 - If you're using a powder to make your protein shakes, mix with water, unsweetened almond milk, Fairlife or Mootopia milk.
 - Introduce the shakes slowly into your diet.
 - Sip slowly, it may take you 30 minutes to 1 hour to finish a shake.
- *Flavorless Protein Powder (can be added to soups, broth, puddings, etc.)*
- Creamy Soups
- Sugar-free Pudding

NO SOLID, BLENDED, OR PUREED FOODS – LIQUIDS ONLY

- AVOID refined, cooked cereals (ex. cream of wheat, grits, oatmeal, cream of rice etc.)
- AVOID high-carb foods blended into protein shakes (ex. fruit, oats, etc.)
- AVOID chunky solids in soups



Stage 2: Soft Protein Foods

Soft, moist, bland proteins—this continues to allow your system to heal & adjust to denser foods.

Weight Loss Surgery	Duration
Lap Band	(go straight to Stage 3)
Gastric Bypass	3 rd & 4 th week
Sleeve, Switch & Overstitch	4 th & 5 th week

General Guidelines:

- This stage consists of incorporating **SOFT & MOIST** meats, dairy products, eggs, beans, & very overcooked non-starchy vegetables.
 - o Varieties of soft fish and shellfish
 - o White meat (turkey, chicken)
 - o Thin sliced deli meats
 - o Cheese, sliced or grated
 - o Eggs (scrambled, soft-boiled, deviled etc.)
 - o Tofu
 - o Plain Greek yogurt or low-sugar yogurt (Two Good, Ratio, Oikos Triple Zero)
 - o Ricotta Cheese
 - o Cottage cheese
 - o Egg/tuna/chicken salad (**NO relish, celery, fruit, nuts/seeds, tomatoes, cucumbers, etc.**)
 - o Varieties of beans and legumes (black, pinto, chickpeas, lentils, etc.)
- **Foods to avoid:**
 - o High carb foods (mashed potatoes, applesauce, cream of wheat, oatmeal, fruit, etc.)
 - o Crunchy foods (bacon, raw vegetables, nuts, salads)
 - o All types of nut butters (peanut butter, almond butter, etc.)
 - o Bread products, including low carb products
- **Try new foods one at a time;** as you are healing from surgery, you may experience some food intolerances— if you experience an intolerance to a new food, try reintroducing it in a few weeks to a month later.
- Remember to chew your food well & take your time eating.
- Stay hydrated—aim to drink a 48-64 oz daily.
- Be creative with your foods; add herbs, spices, & seasonings for extra flavor.
- Eat in small, frequent meals throughout the day to maintain satiety.
- **If you have been feeling nauseous,** make sure all cheeses, meats, yogurt, etc. are fat-free/low-fat – this will help keep your intake bland in order to lessen nausea.

Stage 3: “New Normal”

Weight Loss Surgery	Stage 3 BEGINS
Lap Band	Week 3 post-op (14 days)
Gastric Bypass	Week 5 post-op (28 days)
Sleeve, Switch & Overstitch	Week 6 post-op (35 days)

General Guidelines:

- This is the final stage of your diet after surgery.
 - We will now return to the **low-carb, moderate-protein diet** that was discussed before surgery & continue until we reach your goal weight.
- Aim to **eat 3-5 small**, protein-based meals every day.
- Always STOP eating when you feel satisfied.
- Remember—**no drinking with meals; wait 30 minutes after to resume drinking.**
- Eat your protein first, non-starchy vegetable second, and your carbohydrate last (if you have room)

Tips and Reminders:

- Listen to your body & introduce new foods slowly into your diet.
- **Do not drink with your meals & wait 30-45 after meals to resume drinking.**
 - o Sip fluids
 - o Chewing minty or fruity sugar free gum can help with the thirst after meals. o 1 piece of ice or 1 piece of sugar free life saver
 - o **Straws are OKAY.**
- Pace yourself & chew well
 - o **~20-30** minutes per meal
 - o If you eat too fast, don't chew well, or try to progress your diet too quickly after surgery, you may get too full & vomit.
- **Eat 3-5 small**, protein-based meals every day—focus on protein & fat.
- Pay attention to your food while you are eating to avoid eating too quickly or taking too big of a bite/drink.
 - o Enjoy the flavors in the foods you eat (the most flavor is in the first few bites!)
- Try to differentiate “head hunger” vs. “real hunger”
 - o Ask yourself:
 - Have you eaten in the past couple hours?
 - Did you just see a food commercial/see your favorite restaurant?
 - Did you just smell food?
 - o If you answered yes, then it is probably head hunger (try SF gum or ice chips)
 - o You still need to eat 3-5 small protein-based meals per day REGARDLESS OF if you're hungry or not!

Common Discomforts and What They Mean:

- Nausea/Vomiting (between weeks 1-3): eating too quickly, drinking too fast, having foods with carbohydrates, carbonation, or foods from stage 2 or 3.
- **Lightheadedness/Dizziness:** dehydrated, not enough electrolytes.
- Dumping Syndrome: Eating carbohydrates or drinking while/shortly after eating.
- **Fatigue:** not taking appropriate amounts of vitamins, dehydrated.
- **Dark Urine:** dehydration
- Heartburn: Not taking medications as prescribed, eating carbohydrate foods.
- Tightness in Chest: eating food that was too large, tough, crunchy, or fibrous.

For fever, intense vomiting, feeling of increased heart rate or severe complications please contact the Nurse Practitioner or Medical Assistant immediately.



Part V:

Behavioral Health Before and After Bariatric Surgery

- ❖ Common Discomforts and Monitoring Yourself After Surgery

DEALING WITH EMOTIONS AFTER SURGERY

By Cyndi Inkpen

Along with the physical changes (i.e. weight loss), many patients also experience psychological or psychosocial changes after weight loss surgery. In fact, many patients have been dealing with issues for years, some of which may have contributed to their weight gain. It is important to understand that the psychological and psycho-social aspects of the surgery are as vital to your long-term success as the physical aspects previously discussed. One of the reasons we require all patients to undergo a behavior health evaluation as part of the pre-surgical screening is to allow time for patients to address any emotional or psychological issues that may present a challenge to long-term success after surgery. For many patients, food has been the “coping mechanism” for all emotions. It is important to identify your emotional triggers, whether it is stress, anger, sadness, boredom, or excitement and find other healthier coping mechanisms to take the place of eating food prior to surgery, as using food to cope will no longer be an option. Many patients express feelings of grief, anxiety, frustration, helplessness, and anger after surgery if emotional triggers are not identified and addressed prior to surgery.

Weight Loss Surgery will not fix your everyday problems. Generally speaking, poor relationships do not improve after weight loss surgery. Weight loss surgery does not fix “bad marriages” or poor relationships with family and friends. Weight loss surgery provides you with a tool that allows you to gain control over one aspect of your life which is your weight and health.

Weight Loss Surgery impacts all aspects of your life. You may notice changes in relationships with friends, colleagues, and even family. You may find that adjustments and roles within relationships will change as you become more confident as your weight decreases. Inviting spouses, friends, and others who will provide support for you after surgery to support group meetings may ease the transition and the fear of the unknown as you change before their eyes.

One of the best ways to recognize the events or stressors in your life is to journal using the BMI 5W’s Approach to Journaling. You can even begin this prior to surgery. The BMI 5W’s include, (1) What you eat, (2) When you eat, (3) Where you eat, (4) Why you are eating, and finally, (5) Who you are eating with. Answering each of these questions honestly can lead to great insight regarding your emotional triggers. The second step in this journaling process is to develop alternate activities to help you get through the times when you would have relied /resorted to food.

The importance of recognizing and finding alternate ways to deal with emotional triggers and working through issues in negative relationships prior to surgery cannot be over emphasized. Doing so will put you one step ahead on the path to success after weight loss surgery.

The BMI team encourages all patients to set goals. Goals should not be focused on the numbers on the scale and your expectations must be realistic. Weight loss varies from patient to patient. It is important to remember that if you are following the guidelines established by your surgeon, the excess weight should come off. You should look at the big picture of weight loss surgery, including physical activity and enjoying hobbies and other things that may not have been possible prior to your surgery. Always try to maintain a positive attitude. Remember, you are your best advocate. Perhaps the most important factor to success is a positive, “can-do” attitude with realistic expectations and goals that are set with your BMI team. A unique aspect of our practice is our commitment to long-term care and

follow up, including support groups, patient education programs, and events to celebrate the many successes our patients enjoy as they re-discover life after weight loss surgery.

COUNSELING

Some patients struggle with reconciling their new body image with the way they feel about themselves internally, especially, if people are making comments about their appearance. The attention is not always welcomed. Other patients find that well-meaning family and friends begin to make comments regarding the amount of food they are eating and even statements such as “you are withering away”. In some cases, help from a professional counselor or psychologist experienced in working with weight loss surgery patients may be required to assist in the adjustment of life after surgery. We are happy to recommend qualified counselors that are experienced in working with patients who have had weight loss surgery. Please do not hesitate to request assistance from our team if needed.

FAMILY AND FRIENDS

As weight loss surgery impacts all aspects of your life, it is only natural that your family and friends may have some fears regarding the surgery and what you will be like after surgery. We encourage spouses, friends, and family members to attend our support group meetings and hear how other patients have dealt with close relationships and change after surgery. If needed, we can recommend a counselor or psychologist who is experienced in bariatric surgery to work with your family to address issues that may arise.

Include your family members and significant others in planning healthier meals and choosing healthier products at the grocery store. Prior to surgery, try to engage the entire family in physical activity, such as walks in the neighborhood or water activities that are approved by your surgeon. Incorporating small changes such as not drinking with meals, eating off smaller plates, using smaller utensils can take time to adjust to, however, the transition will likely be smoother if the entire family participates in these new lifestyle changes. The added benefit is that hopefully these healthy habits will improve their health as well.

BODY IMAGE

Keep in mind that your body will undergo major changes as you lose weight, and it is likely that you may not see your body as others may view it. It takes time for your mind to catch up with what your body is doing. It is not unusual for weight loss surgery patients to describe walking past glass windows and ‘not recognizing’ the reflection in the glass. It is also not uncommon for patients to go into Women’s Clothing Stores with plus sizes and big and tall stores for men and have store attendants come and redirect them to more size appropriate stores where the clothes are much smaller.

One way to “see” the physical changes is to take pictures of yourself prior to surgery and monthly afterward for at least the first year. Another useful tool is to take your body measurements prior to surgery and once a month after surgery for at least the first year. Some patients draw the outline of their body on art paper prior to surgery and once a month after surgery. Each of these tips provides a way for patients to visually see and realize the physical changes.

Many patients keep at least one outfit from their pre-surgery days as a reminder of where they have been and how far they have come. For men, keeping a belt is a very real way to see the weight loss and how much your waist shrinks after surgery. Both methods help you appreciate how far you have come on your journey and provide positive re-enforcement when you hit a plateau from time to time.



Reshaping Your Life™

Non-Surgical Treatments:

- ❖ General Nutrition with our Registered Dietitian

Hormone Replacement Therapy

What is Hormone Replacement Therapy (HRT) and why would I want it?

HRT is a testosterone hormone replacement therapy that utilizes pellets containing bio-identical hormone that help balance levels in both men and women.

Hormones are an important regulatory system in our bodies that act as messengers, interacting with target cells and organs, controlling and coordinating activities throughout the body. As you age, these hormones decrease in production and imbalances can occur leading to a variety of side effects as symptoms.

Is HRT right for you?

Do you suffer from:

- Lack of energy/fatigue throughout the day
- Difficulty sleeping at night.
- Reduced mental focus or memory.
- Moody, anxious or depressed
- Weight gain especially increased fat around mid-section
- Inability to lose weight despite exercising and maintaining a healthy diet.
- Decrease muscle strength.
- Muscle or joint pain
- Reduced sexual desire or performance.

Often, patients with these symptoms are likely suffering from hormone imbalance.

How do I get started?

Start by scheduling a comprehensive consultation with your provider at BMI of Texas. Based on a thorough blood work panel, your provider will determine if you are a candidate for pellet therapy. You will then be scheduled for a follow up appointment for your pellet insertion. Every pellet is custom compounded to the patient's unique needs. Your insertion day consists of a short office visit in which the pellet is inserted into the hip area with a small incision and then covered with a small bandage.

Patients will receive two to four pellet insertions per year depending on gender, weight, absorption rated and number of hormones present at the time of insertion. This form of therapy comes with the advantage of consistent administration of hormones to prevent rollercoaster-like effects often experienced with creams and pills.

How long does HRT take to work?

Most patients report some symptom resolution in as little as two to four weeks, but full optimization may take up to six months.



ADDITIONAL INFORMATION:

- ❖ Staying Connected: Social media and Monthly Support Group
- ❖ Patient Portal Link
- ❖ Exercise
- ❖ 5 Keys to Long Term Success
- ❖ Writing a Testimony
- ❖ Frequently Asked Questions
- ❖ Important Contacts

Always Remember:




We are here to guide you through this life change & will help in any way we can to make this transition as smooth as possible.

If you would like additional nutrition counseling, mental health therapy, ideas for meal planning, or are experiencing any post-op problems regarding eating or drinking.

COME SEE US!

Call us to schedule:
(210) 615-8500

STAYING CONNECTED: BMI OF TEXAS ONLINE SUPPORT

	Facebook - https://www.facebook.com/BMIofTX
	Baritastic App: FREE download <ul style="list-style-type: none">- Includes nutrition tracker, Fitbit tracker, discharge instructions, post-op diet instructions, vitamin information, calendar of events and much more!- Enter the code 58500 when prompted to join our program-
	@bmioftx

Be sure to create an account through our patient portal. This is the best way to contact your medical team!

Please visit our website (<https://www.bmioftexas.com/>) and click on “Patient Portal” under “Resources” (top right). Or you can use the link below.

<https://pp-wfe-101.advancedmd.com/account/logon?lk=153932>

Virtual Support Group Meetings

We encourage you to attend meetings as often as possible and to bring family, friends, and others who support you. We realize that attending support group meetings takes time away from your family and other day-to-day activities; however, we believe that attendance at support group is key to long-term success after weight loss surgery. Our meetings are both educational and social in that a topic based on BMI of Texas' Weight Loss Surgery Education Curriculum is covered as part of each meeting, yet there is time built in for questions, networking, and sharing of patient successes and challenges. Support Group is an excellent way to meet others who share similar experiences and also to make new friends who will support you on your journey.

Meetings are held on the first Monday of every month at 6pm.

Please ask a staff member for more information.

Contact Info

Dietitian- Katie Lightfield, MS, RD, LD

Email: katie.lightfield@bmioftexas.com

Behavioral Health Specialist- Natasha Klavon, MA, LPC

Email: natasha.klavon@bmioftexas.com

Helpful Links/Websites

www.ABOM.com

www.ASMBS.org

www.OMA.com

www.Verticalsleevetalk.com

www.RNYtalk.com

www.eatright.org- The American Dietetic Association

www.myfitnesspal.com –Online Food Diary

www.obesityhelp.com

www.nwcr.ws –National Weight Loss Control Registry

www.diabetes.org

www.fnict.nal.usda.gov- site for kids and weight loss

www.everydayhealth.com

www.dwlz.com [this has nutrition info on almost every restaurant you can think of]

www.healthylivingonline.org

www.foodfit.com

www.nutritiondata.com

www.biggestloserclub.com

www.obesityaction.org

www.healthypeople.gov/hp2020

www.dietdoctor.com

<http://peaceloveandlowcarb.com/>

Recommended Reading

- 50 Ways to Soothe Yourself without Food, Susan Albers, PSY.D
- Made to Crave, Lysa Terkeurst
- Biggest Loser Complete Calorie Counter
- Cholesterol Clarity, Jimmy Moore
- Every Body Matters, Gary Thomas
- Food: the good girl's drug, Sunny Sea Gold
- Good Calories, Bad Calories, Gary Taubes
- Keto Clarity, Jimmy Moore with Eric Westman, MD
- Lauri's Low-Carb Cookbook: Rapid Weight Loss with Satisfying Meals, Lauri Ann Randolph
- Bounce: A weight-loss doctor's plan for a happier, healthier and slimmer child, Wendy Scinata, MD
- The Big Fat Surprise: Why Butter, Meat & Cheese Belong in a Healthy Diet, Nina Teicholz
- Love to Eat Hate to Eat, Elyse Fitzpatrick
- The Art & Science of Low Carbohydrate Living, Jeff Volek, PhD, RD; Stephen D. Phinney, MD, PhD
- Cooking Light: Fresh Fast Food- Weekend Meals
- The Art and Science of Low Carbohydrate Performance, Jeff Volek, PhD & Stephen Phinney, MD
- The New Atkins for a New You Cookbook, Colette Heimowitz
- Living Low Carb, Jonny Bowden, PhD, CNS
- Why We Get Fat & What to do about it, Gary Taubes
- The End of Overeating, David Kessler, MD

EXERCISE

Pre-Surgery

Your Weight Loss Surgery Journey starts the day you attend Seminar. If you exercise daily, you will definitely lose more weight than patients who do not exercise pre-surgery, so it is important to begin an exercise program immediately! You are already aware that bariatric surgery is simply a tool for weight loss. To achieve the maximum benefits from your surgery, it is important to incorporate exercise into your normal routine. Exercise is a key factor in the ability to not only lose weight, but also to maintain your weight loss. It is also important to help keep your bone density strong, increase your strength and balance, and improve your energy and your overall quality of life. If you want to feel good, maintain or even build your muscle mass, it is imperative that you exercise. Walking is the most convenient and least expensive exercise. We encourage our patients to make a long-term commitment to engaging in some type of physical activity every day.

Fear is not Unusual, and You Are Not Alone

For many patients before surgery, the thought of exercise sounds terrifying. You may have had problems with your joints or being short of breath, and just not feeling like you fit in at the gym, or maybe not even understanding the different types of exercise that one can do prior to surgery. Our team will work with you to help ease you into an exercise routine or physical activity that meets your lifestyle and that you will be willing to commit to. Our fitness professionals will guide you in the right direction and are available to answer questions that you may have.

Are You Sure this is Working?

There is a time and place for every type of training. Your goals should determine the type of training you engage in at any given point in time. Our preeminent goal at the start of your weight loss journey is to emphasize cardiovascular activity that allows you to burn fat efficiently and safely. There are numerous heart rate training zones. Some are more intense than others, and they all have a time, place, and purpose. You could think of them in terms of speed limits for the heart. During the early phases of your training, you could imagine you are driving in a school zone (aka Fat Burning Zone). It is going to be low and slow, meaning lower intensity and slower speed. While this seems as if it will do you no good, it provides two components that are vital to your training: 1) you will burn a higher percentage of fat at this lower intensity, and 2) you will not tax your body beyond what it is capable of at that time. Walking is an excellent activity for burning fat; shocking, but true. **Your pre-surgical goal is to build up to walking 30 minutes a session. If you can walk 20 to 30 minutes before surgery, you will significantly increase your ability to recover post-surgery.** This not only makes your peri-operative risk for a pulmonary embolism or DVT (blood clot) less, but you will be able to resume your normal daily functions and activities more quickly and with fewer complications from the trauma of the surgery.

What You Don't Want to Lose

It is extremely important that you not lose your muscle mass during your weight loss journey. When one is considering weight loss surgery, patients underestimate their strength and the importance of a strong, stable foundation necessary to support their current weight. As one loses 40, 50, 60, or 80 pounds we do not want all that weight loss to come from muscle, but rather desire that the maximum amount come from fat. To maximize fat loss as opposed to muscle loss, one needs to maintain their muscle mass and in these early phases the best solution is through walking.

Try walking 3-5 days a week or even daily to improve your circulation, which will also make breathing easier after surgery. If you could only choose one exercise before surgery, ideally, it would be walking. You will be surprised how much weight you can lose from slow, steady walking before surgery, and as previously mentioned you can maintain your muscle mass and strength from walking. You may want to purchase a pedometer to keep you informed of how much you can walk. Many patients are surprised that they can walk up to between 5000 and 15000 steps a day on a routine basis. Ideally, we want you to be walking 30 minutes a day after surgery as a baseline. If you can complete 30 minutes at a time without stopping, then we would ask that you would add simple items like small hand weights to burn more calories.

At the Bariatric Medical Institute of Texas, when we talk about exercise, we give the analogy of 2 vehicles. If you take a Hummer vehicle and put it side -by-side next to a Smart Car and drive them around all day, which one is going to burn more fuel? Well, the answer is the Hummer. The Hummer burns more fuel because it has a bigger engine, and the bigger engine burns more fuel. In a similar way, we want you to be a Hummer. We want you to possess a larger engine that consumes fuel that continues to maintain your muscle mass. If, you have a larger muscle mass, you will burn more calories for most of the day that you are not exercising. This is another way to maximize your fat burning potential, and ultimately, we want to see that Hummer engine in a Smart Car body.

Where's My Motivation?

Exercise is difficult. It is often hard to stay motivated. It may not be easy to find an exercise that you like. For these reasons, we highly recommend that you incorporate a fitness professional into your weight loss surgery journey. You can have an evaluation with a fitness professional, either before or after surgery, but it is very important to understand that they will teach you different forms of exercise that you may not realize are at your disposal. Even if you are an experienced exerciser, or perhaps you played a sport in college, at BMI of Texas, we feel that you would still be surprised by the amount of knowledge that you can gain from a fitness professional, and the things that they can teach you to do on your own. We want patients to look into forms of exercise that they may have never tried before, for example, recumbent bicycling, yoga, dancing, Thai Chi, or boxing.

Exercise does not mean that you have to be in the gym for hours a day. If it has been some time since you have exercised regularly, it is best to start slow, with perhaps even only flexibility training. You can think of exercise like cutting down a tree. It is going to take time to chop down a big tree with a small axe, but, eventually, as you chip away, you will be able to accomplish great things. Physical limitations or complications may mean that you may have to start as little as 5 minutes a day and adding only 5 more minutes a week. However, a reasonable goal is to be active for 30 -45 minutes per exercise session. We want you to exercise at least 3 times per week (this can fluctuate depending on where you are in your journey. You may exercise up to 5-6 days per week, but 3 days is a good baseline).

It is imperative that you make exercise a regular part of your routine. Just being an active person is not enough exercise to lose weight and maintain your weight loss. In other words, going shopping at Wal-Mart is not exercise - that is living! There is a big distinction between leading an active lifestyle and exercising.

We want to reiterate that exercise is also a very important way to prepare for your surgery at BMI of Texas. The best time to start your exercise is truly before surgery, and we are not kidding. The sooner you start exercising, the easier it will be immediately after surgery. Remember that immediately after your surgery, you will be required to be ambulating up and down the hallways. As we have emphasized previously, if you exercise before surgery, you will find that the recovery from surgery is often much easier.

What if Walking is Too Difficult?

If you are unable to walk due to joint pain, then you may want to look into an aquatic program. There are many classes in San Antonio that incorporate water aerobics, and there is one at the facility we share at the Foundation Surgical Healthplex that involves an underwater treadmill and allows you to do resistance training.

Water exercises will still allow you to condition your breathing and your muscles, but weight-bearing is significantly reduced, and, therefore, it is much easier for those who have joint problems.

There are three types of exercising that you should try to incorporate into your post-surgery exercise routine. A well-balanced exercise program would include some exercise from each category:

- 1) Cardiovascular**
- 2) Resistance training**
- 3) Flexibility**

Cardiovascular Exercise-Important for fat burning and “heart health”

What are Heart Rate Training Zones? You could think of them as speed limits for the heart. There are different speed limits for different times and places, and the same goes for heart rates. Hopefully, you wouldn't be driving 75 mph in a school zone. Likewise, you wouldn't be driving in the left lane of a highway in West Texas at only 20 mph. Think of your heart rate in much the same way. So, what are the training zones, you ask?

1. **Zone 1 or “Fat Burning Zone”:** This is like driving in a school zone or being out on a relaxing scenic drive. Your “Fat Burning Zone” (Zone 1) is low to moderate intensity. It may be frustrating like having to slow down in a school zone, but it is definitely safer for the new exerciser (the driver) and it has another great benefit. This is the zone where you can use body fat most efficiently. If you were to take a New Leaf Metabolic VO2 Exercise Test, you would see that early in the test, body fat is used more efficiently and in higher amounts.
2. **Zone 2 or “Fit Zone”:** This is your 45-60 mph zone. You aren't flying down the road, but it is a step up. It is more challenging. This zone has a tremendous benefit to your heart health. We are fond of saying that you only have one heart, so you need to take care of it. This is the zone where it all starts.
3. **Zone 3 or “Threshold Zone”:** How many of you like to drive fast? Well, this is the exercise equivalent of 70mph or above. We're not accusing you of breaking the law, but we know how it is when we all feel the need for speed. Just as your fuel efficiency decreases at higher speeds, so too does your ability to keep your fuel source from running out. More effort is being put into the exercise, and you eventually will run out of gas if sustaining this higher intensity level. This is NOT the place you want to start training. If your car needs repairs, the engine hasn't been serviced in a while, and/or it is running on four spare tires, it isn't safe to take that baby out on the highway yet...not YET.
4. **Zone 4 and Higher:** Ever heard of the Autobahn? Do you know what it is like to watch a Porsche drive by at 150mph (“I think that red flash was a Porsche!”)? Well, these zones are the Autobahn of exercise. Usually, these zones are best for preparing for high intensity athletic competition. The Spurs wouldn't be champs if they only trained in their Fat Burning Zone!

There really is a time and place for every type of training. Each zone has a purpose and a benefit. What is best for you? Meet with your fitness professional and you can know for sure.

Resistance Training: important for improving strength, endurance, and power.

Resistance training can be implemented through a variety of modes, such as bodyweight exercises, free weights, or bands (and don't forget water resistance!). When you perform strength -building exercises, your muscles become stronger, and this increases your metabolism (remember the Hummer and Smart Car illustration?). We cannot state enough how important it is to maintain or increase your muscle mass. However, please do not equate increasing muscle mass with bodybuilding. While bodybuilding obviously involves an increase in muscle mass, that is an extreme case, and not the goal of most people. When we stress increasing muscle mass, we are emphasizing the importance of maintaining vitally important metabolically active tissue, which promotes fat utilization! That's a big deal! Your muscles will use these calories for energy when your body is at rest. More metabolically active tissue equals more calorie expenditure, whether exercising or resting. Strength-building exercises should be performed 2-3 times a week for the best results (the frequency is of course determined by your overall goal). Common resistance exercises may also be fashioned to create circuit training routines, which provide a great combination of strength/endurance and cardiovascular components.

Flexibility Training-important to prevent injury, improve range of motion.

Due to the nature of being in a technological society, many of us experience reduced range of motion. If you think back to childhood, you may fondly recall being able to move your body more freely with less tightness and fewer restrictions. Unfortunately, this is the price that we have paid for improved technology. All is not lost however, and flexibility and ROM (range of motion) exercises can aid in reducing stress on joints, decreasing muscular pain, and improving your ability to move freely. Since we move daily, flexibility and/or exercises that challenge your range of motion can also be performed daily.

More of What You Don't Want to Lose

Loss of bone or muscle mass: When the body is in a state of stress and trying to combat the design starvation from surgery, it will hoard its fat until any other useable fuel has been burned. Practically speaking, the body prefers to burn muscle mass before consuming its fat. If muscle is not regularly used in exercise every day, then it will be consumed to meet the energy needs of your body! Seeing patients in follow up, it is often very easy for us to tell which patients are exercising and which are not. Often patients who are not exercising will lose more weight initially than patients who are exercising - the reason is that muscle weighs more than fat, and patients who are regularly exercising are maintaining their muscle mass. This lends proof that the fastest weight loss is not necessarily the best weight loss. While it is true that we want to maximize and facilitate weight loss, we do not seek to do so at the expense of valuable muscle tissue.

The loss of muscle mass is definitely preventable, and the well-balanced exercise program is a primary "preventer" of such loss of muscle mass (this may sound repetitive, but we don't want you to forget the importance). Many people find that after a few weeks of regular exercise, they actually will begin to enjoy it, and hopefully, you will become attracted to exercise, perhaps in the same way that you were attracted to food prior to surgery.

You might be surprised to learn that although people with obesity are often deconditioned or “out of shape”, they are often quite strong and powerful when put to the test. One has to realize that when you are morbidly obese (100 pounds overweight), the simple act of just getting out of bed is not so simple. You are lifting more weight than many people lift all day. Many patients who are morbidly obese do not realize how strong their frame and their muscles are in order to support their current body mass. These are the same muscles and bones we want you to maintain after weight loss surgery. We want you to continue to be strong and very powerful, while losing weight and improving your overall health. Try to save your muscles, keep your energy, eat your protein, and exercise.

Metabolic Testing

Once you begin and maintain a regular exercise program, we strongly recommend you consider metabolic testing. This is a very high-tech way of matching your heart rate with your ratio of oxygen and carbon dioxide exchange. What does this mean? Because it is specific to each individual, it is more effective than educated “guesstimates” in calculating your ideal training zones. This test costs about \$150 dollars but it is a very effective method for determining both the quantity of calories (how many) and the quality or type (fat or carbohydrates) of calories you utilize across a broad range of heart rate zones. This can help you to answer the question, “What type of exercise is best for me at this point in my life? (Remember “Speed Zones for the Heart”?)

Water Fitness

Many of our patients like water fitness activities. You can start water activities approximately 3 weeks after your surgery. Water programs are fantastic. Because they are non-weight bearing, they are gentle on the joints of patients who have orthopedic issues that restrict movement and function. Water fitness can improve strength, flexibility, cardiovascular health, decrease body fat, and enhance coordination for other sports or activities. Water classes can be very difficult to find if you do not live in a major metropolitan area, so it will be important to find a facility first. You may want to look at a local YMCA or community center, health club, or a online fitness group. You may also want to look into a Master’s Swimming Program. These programs are often offered at places during lunch hours or early morning and later in the evening, after high school teams have finished working out.

A Personal Trainer

There is a reason that movie stars and athletes use personal trainers. Working with a personal trainer is one of the fastest, easiest, and most successful ways to improve your health. Personal training is very effective, and it has spread beyond the world of the rich and famous. Today, many personal trainers are used by people of all social and all economic backgrounds. The “right trainer” can improve your overall fitness. Trainers can monitor and fine tune your program and help you overcome obstacles you are facing to move beyond your weight loss plateaus. It is important to select a personal trainer that has experience working with bariatric patients and has certifications, (some common, well-respected organizations include, but are not limited to NASM, ACSM, and NSCA).

Friend/Family Member for Hire

Many patients find that they are more successful if they have work-out or exercise partners to motivate and encourage them to keep going. Many families have game or movie night. Why not try having a physical activity night, even if it is just walking through your neighborhood or a local park. Physical activity is good for the entire family.

5 KEYS TO LONG-TERM SUCCESS

1. **Consider group fitness.** This doesn't mean you have to join a gym to do group aerobics classes or join a cycling/running club...but studies do show that if people commit to an exercise program that involves others, they are less likely to skip. Also, these same studies show that people report feeling "more motivated" than when they solely exercise alone. Try to choose places and times where there will be other people who will be actively involved in the exercise. Also try to find facilities where you feel comfortable with your body when and where you are exercising. Make a deal with a friend that you will call or email each other daily to remind each other about your plans...and follow up when that person doesn't show!
2. **Make realistic goals.** Everybody has a very busy weekly schedule. However, it is crucial that you devote at least part of your week to exercise. Try incorporating physical activity on a daily basis, even if it is only for a short period of time. If you are convinced that you have no time during the week to exercise, you need to find at least one block of time where you can exercise for at least 30 minutes, and even if you can only go one time a week, make this period of exercise sacred, where everyone in your family and at your office knows that they cannot schedule other activities at this time.
3. **Surround yourself with support people.** As much as you are fighting for weight loss physically, there are also the emotional and mental components. Do not be afraid to confide in people you trust that can encourage you when the temptation to quit rears its ugly head. Unfortunately, we do not live in a vacuum that allows us to operate without temptations and obstacles. Don't ignore them or run from them. Make sure you have an excellent primary care physician, attend support group or reach out to the many on-line support networks that are available, chose to be around positive family and friends who understand and support your journey. Surround yourself with people (whether friends or professionals) that are not afraid to encourage you to keep exercising!
4. **Find exercises that you enjoy.** That means feeling free to try out different activities. If you are not a professional athlete that has to train a particular way for their endeavor, then play! Have fun, experiment, explore, and consider it an adventure! If you cannot get excited or look forward to whatever it is that you are doing, you are far less likely to keep doing it.
5. **Balance the need for challenge with the importance of safety.** If you are struggling with joint problems (i.e. knee) and are only a month removed from surgery, it is not the best idea to climb the steps at the Tower of the Americas for your challenge. Someday, that may be a great challenge, but allow yourself to travel through each step of improving your health and fitness to **get to your goals.**

Submit your Testimonial: People want to hear your story!

We would be honored to have you submit your story on the BMI of Texas and/or the Obesity Help websites. Hearing stories from patients, in their own words, can be very enlightening and encouraging, no matter what part of the process the patient may be in.

Please email our Registered Dietitian, Katie Lightfield, if you are interested in submitting a testimonial!

Katie.lightfield@bmioftexas.com

FREQUENTLY ASKED QUESTIONS

Pre-Surgery Questions:

Q: How do I know which procedure is right for me?

A: Your surgeon will review your medical history with you and help you determine the surgery that is appropriate for your lifestyle and medical history.

Q: How do I know if I'm a candidate for weight loss surgery?

A: You may qualify for surgery if your body mass index (BMI) is 40 or more (about 100 pounds overweight for men and 80 pounds for women) **or** if your BMI is 35 to 39.9 with a serious obesity-related health problem such as type 2 diabetes, coronary artery disease, sleep apnea, acid reflux or hypertension. More recently, patients with BMI between 30-35 also are candidates if they have co morbidities although insurance will likely not help you pay for the surgery. You also need to be able to commit to lifetime follow up, vitamin supplementation and healthy lifestyle changes.

Q: What is BMI?

A: B.M.I. or body mass index is a number that we calculate to give significance to the relationship between your height and weight. It means something very different for a 7-foot-tall man to weigh 300 pounds as opposed to a 5-foot-tall woman weighing 300 lbs. This number helps us to account for these issues and to put people into categories that indicate how sick the extra weight is making them.

Q: How can I figure out my BMI?

A: You can visit our website www.bmioftexas.com and use the BMI calculator.

Q: How do I know if my insurance company or employer covers weight loss surgery?

Your Human Resources or Employee Benefit office should be able to provide that information to you. However, our team contacts your insurance agency to determine available coverage and any costs not covered under your plan. Our team will make every attempt to work with your insurance provider or employer to obtain approval for the surgery.

Q: Is private financing available if my insurance company or employer does not cover weight loss surgery?

A: Yes, your Patient Advocate will provide you with alternative funding sources and guide you through the process. Most people finance at least a part of their surgery. It is very common with the high deductible plans nowadays to finance the deductible.

Q: Who do I need to talk to regarding the final cost of my surgery?

A: During your initial visit with BMI of Texas you will meet with a Patient Advocate who will provide you with this information. You can also meet with our billing specialist.

Q: Why do I have to see a dietitian and have a psychological assessment?

A: While your operation is a very important piece of the puzzle that will help you get healthier, they are by themselves incomplete. You will soon have an incredible tool at your disposal to help you fight a disease that has been to this point overwhelming. In order for you to achieve success, you must know how to best use that tool. This is where the team comes into play. The dietitians and psychology staff will help you to understand how food choices and behavioral changes have in the past led you into trouble, but in the future will lead you to success that you may have thought impossible. Most insurance companies will require that patients meet with these individuals before approving the surgery. We feel that the team approach is critical to you getting the most out of your surgery.

Q: Is there an age requirement to have weight loss surgery?

A: Surgery is usually safest at the age groups between 16 and 70. If you are interested in surgery and/or weight loss and are out of this age group, please call the office to make an appointment with our doctors or Nurse Practitioner (NP) to hear about your options. We have certainly operated on folks older and younger than this range so check with us to see if you are a candidate.

Q: What medical problems does weight loss surgery improve?

A: Surgery can improve or cure most obesity related illnesses such as diabetes, sleep apnea, hypertension (high blood pressure), high cholesterol, acid reflux, depression, stress incontinence, muscle/joint pain and osteoarthritis. Weight loss is also associated with favorable pregnancy outcomes, improves fertility and decreases cancer risk. Bariatric surgery also increases total life expectancy.

Q: What are the risks of Bariatric Surgery?

A: Most of the risks of **bariatric surgery** are like any other surgery on the abdomen. Bleeding, infection, need for corrective procedures, hernias, wound problems are all very low risks.

Leak after a gastric bypass, duodenal switch, or sleeve operation is a <1% risk. A leak with a band

operation is extremely rare since no new connections or resections are being done. The risk of death with a gastric bypass, duodenal switch, or sleeve is 1/1000 in the United States. It is 1/5000 to 1/10000 with the band. Risk of slippage or shifting of the band is about 3% over the life of the band. These can usually be surgically corrected without need for removal of the band. The risk of an erosion of the band into the stomach is 1%. This, while rare, does require removal of the band. There are also risks of ulcers or swallowing problems. There is a risk of a blood clot forming in the legs or in the pelvis. If a blood clot breaks free and lodges in the lungs this is called a pulmonary embolism. This is uncommon but is something all surgeons worry about as it is difficult to manage. Failure to lose weight, while rare, is risk as well. It usually involves a compliance problem, however. There may be other risks of these operations that we don't yet know as weight loss surgery is a new field of medicine and some of the operations are very new. This list is a partial list of risks; a more complete description is available at our seminar.

Q: How long do I have to take off work?

A: Recovery times differ but most people go back to work within 1 to 4 weeks. We do occasionally have gastric sleeve or band patients who have surgery on a Friday and return to work on Monday, but this isn't the case for everyone. We prefer that sleeve patients take at least 1 week off and gastric bypass/ duodenal switch patients at least 2 - 4 weeks.

Q: Why do I have to be placed on a pre-op liquid diet?

A: It is imperative that you strictly follow your pre op diet for 14 days prior to your operation to help reduce complications during your operation. The pre-op diet helps reduce the size of your liver making it easier to perform surgery on your stomach.

Q: Why do I need to take vitamins for life?

A: Vitamin supplementation is important to maintaining lifelong health. Since portion sizes will be significantly smaller as well as the stomach size, and in some weight loss surgeries, re-routing of the intestine, it is imperative that you maintain adequate nutrition with vitamin supplementation. Vitamin deficiencies can cause severe nutritional problems and devastating symptoms which can be prevented by taking daily vitamins for life.

Q: What type of vitamins do I need to be taking?

A: Please see nutritional section of this handbook but in general, a multivitamin, calcium citrate, vitamin D3, vitamin B12, and Iron are needed daily. Duodenal Switch patients will need an extra Vitamin ADEK supplement. Ask your surgeon, dietitian, or Nurse Practitioner (NP) for further guidance when choosing vitamins.

Q: How soon will I be able to walk after surgery?

A: There are no restrictions with walking. Surgery patients should be walking the same day of their surgery and continue walking at least 30 minutes daily afterwards. Forming blood clots in the legs are a risk factor of surgery. This risk can last for up to 6 weeks after your surgery date. We encourage ambulation and exercise as soon as possible.

Q: How long does it take after I watch a seminar to get on the surgery schedule?

A: This depends almost entirely on the requirements of your insurance company. Many carriers require extended physician monitored diet appointments for 3 or 6 consecutive months. As soon as you are approved for bariatric surgery, we will be ready to proceed. If you do not have to go through your insurance company, the time can be very short (even a week or 2).

Q: Why do I have to quit smoking if I want my surgery done by BMI of Texas?

A: Smoking will increase all potential risks of surgery including death. Tobacco increases the risk for blood clot formation in your legs (deep venous thrombosis) which could lead to a pulmonary embolus, poor tissue and wound healing leading to a leak and infections, and anesthesia complications such as acute respiratory distress syndrome and pneumonia. Smoking will also cause gastric ulcerations and erosions in your new stomach pouch. You must quit smoking **at least 6 weeks** prior to your surgery or your surgery will be postponed. A smoke-free lifestyle must be maintained after surgery too.

Q: Do I need to take a bowel preparation before surgery?

A: It is not mandatory that patients take a bowel preparation prior to surgery. Since patients are placed on a liquid diet prior to surgery, bowel cleansers (laxatives) are not needed for weight loss surgery.

Surgery Questions:

Q: Which weight loss surgery procedures are performed at BMI of Texas?

A: The mainstream weight loss surgeries performed include: Roux en Y Gastric Bypass (Gastric Bypass), Sleeve Gastrectomy (Gastric Sleeve), Duodenal Switch (Switch), Overstitch and other revisional surgeries.

Q: How much weight can I expect to lose after weight loss surgery?

A: Weight loss varies with each patient. Gastric bypass patients on average will lose about 80 percent of their excess weight. The average Lap band patient will lose 40 percent of their excess weight. The average Sleeve gastrectomy patient will lose about 65-70 percent of their excess weight. The average Duodenal Switch patient will lose about 90 percent of the excess weight. Therefore, if a patient is 100 pounds over-weight, they can expect to lose 80, 40, 65, and 90 pounds, respectively. Note, these are averages, therefore some patients have lost 100 percent of their excess weight and others are not as successful.

Q: Is weight loss surgery a “cure”?

A: No, weight loss surgery should be considered a “tool” to assist you with achieving your weight loss goals. It is imperative that you commit your life to healthy living including eating properly and lifestyle modification. Obesity is a chronic disease that needs to be monitored for a lifetime.

Q: Are the surgeries reversible?

A: Patients should not have weight loss surgery with the intention of having the surgery reversed. Reversals are only done in rare circumstances. Gastric Sleeve and Duodenal switch are not reversible.

Q: How long does each surgery take?

A: The amount of time spent in each surgery depends on the patient's history and which procedure chosen. On average, Sleeve Gastrectomy surgery can take 30 to 60 minutes. The gastric bypass and duodenal switch can take 60 to 90 minutes and revision surgery varies from 60 to 180 minutes.

Q: Do the staples used in surgery set off metal detectors or are unsafe in MRIs?

A: The staples used in your procedure are very tiny and made of titanium therefore do not give you problems during MRIs or metal detectors.

Q: How long is the hospital stay after weight loss surgery?

A: Gastric banding is usually a same day procedure unless your insurance requires an overnight stay. Sleeve gastrectomy is usually one night hospital stay (Medicare requires a two-night stay). Gastric bypass, duodenal switch, and revision surgery patients usually stay 2 to 3 days.

Q: Which medications should I avoid before surgery?

A: Avoid medications that will thin your blood such as NSAIDS (Ibuprofen, Motrin, Advil, Aleve), Aspirin, Plavix, and Coumadin (Warfarin). Avoid medications that prevent healing such as steroids (i.e. Prednisone). Avoid medications that could potentially clot your blood such as birth control pills and hormones (i.e. Estrogens).

After Surgery Questions:

Q: What is the post-op surgery diet?

A: See nutritional section of this handbook. The post op diet usually includes 2 to 3 weeks of liquid diet (depending on what surgery was performed), followed by soft protein diet for 2 weeks, then solid regular food that is high in protein and low in carbohydrates for the rest of your life.

Q: Which medications should I avoid after surgery?

A: Avoid medications like NSAIDS (Ibuprofen, Motrin, Advil, Aleve) as these medications can cause stomach ulcers. Also, oral steroids such as Prednisone need to be avoided.

Q: How frequently do I need to follow up with my surgeon's office after surgery?

A: At BMI of Texas, we feel that the patients who follow up regularly have the best long-term success. Please see our Follow up schedule at the beginning of this book.

Q: Will I ever be able to attend a social event where food is served after surgery?

A: Yes, we encourage our patients to remain active and attend social events. Our on-line facebook page (www.facebook.com/bmioftx), social media pages, live support group, and our dietitians are all excellent resources for information and advice when it comes to dining out after weight loss surgery.

Q: Will I need to exercise after surgery?

A: Yes, to achieve maximum long-term success you will need to exercise after surgery.

Q: What types of exercise should I be doing after surgery?

A: You have no restrictions on exercise after surgery. Most patients enjoy jogging, running, biking, swimming, weightlifting, and exercise classes. If you have specific exercise needs due to physical limitations, we ask that you visit with one of the exercise physiologists and/or trainers at the Promotional Therapy Gym that is located inside the Foundation Healthplex. 210-478-5331.

Q: Can I fly on an airplane after having surgery?

A: Yes, you may fly on an airplane after surgery, but you are at risk for forming blood clots in your legs up to six weeks after your surgery. We recommend if you must fly to sit on an aisle seat and get up during your flight to move around.

Q: Is there anything I can take for ‘bad gas’?

A: Occasionally, patients may experience unusually potent gas. This is usually the result of combinations of diet and supplement intake. At times this can be socially challenging. Fortunately, there is a product available that will quell the unpleasant odor. Devrom is available over the counter and is a highly effective way to combat this issue. You can learn more at www.devrom.com. Also, over the counter, chewable simethicone will help alleviate gas pain symptoms.

Q: Can I regain my weight?

A: Yes, it is possible to regain weight after weight loss surgery. We highly suggest our Comprehensive Medical Surgical Program (CMSP) to prevent weight gain from happening. We also offer in-person and on-line support groups for our patients. Attending support group provides an opportunity to hear from other patients and learn from their experience. Also, frequent visits when our dietician and behavioral health specialists will help you keep on track with your weight loss.

Q: After the surgery is complete, will I wake up with a tube in my nose?

A: We do not routinely leave tubes in the nose; however, if the operation is very difficult or we encounter a leak when we test, we might leave a nasogastric tube in. The chances of this happening are very, very small.

Q: When can I resume sexual activity?

A: As long as you are not having pain, then your abdomen has healed, and it is safe to resume sexual activity.

Q: When can I expect hair loss and is it permanent?

A: Most people start losing hair between 3 to 6 months after weight loss surgery. The hair loss is not permanent and increasing protein in your diet and taking all your vitamins will help slow the process down. Patients also state that the supplement Biotin works well too.

Q: When can I start driving?

A: Usually if you have been off your pain medications for 24-48 hours, not having any pain, and able to rotate your upper body without restriction than you are able to start driving. Usually, patients need to wait at least 2 weeks before they drive.

Q: When can I stop using my CPAP machine?

A: You can stop using your CPAP machine when your Obstructive Sleep Apnea is resolved. As a general rule we ask that if you have Obstructive Sleep Apnea that you wear your mask for 6 months after surgery. At that time, we ask that you undergo another sleep study to either confirm that your Obstructive Sleep Apnea is resolved, or to re-titrate the machine so that you do not experience as much pressure of air blowing at you. If your 6 month appointment is coming up, then you may want to call the office and make arrangements for repeat sleep study so that we can discuss the results with you when you come in to see us.

Q: How much water or fluids should I drink?

A: It is very important that weight loss surgery patients remain hydrated after surgery and aim for 64-80 ounces of fluids daily. We recommend that you sip 2 – 4 ounces per hour for 16 daytime hours. This will put your daily consumption anywhere between 32 and 64 ounces daily.

Q: How much protein do I need on a daily basis?

A: Patients should try to get in at least 70 grams of protein daily. Focus on plant-based protein (soy, lentils, beans), lean meats, chicken, and fish.

Q: Can I tolerate milk products after surgery?

A: Most gastric bypass, duodenal switch, and sleeve patients develop lactose intolerance after surgery. It is probably best to find a lactose free dairy product. Examples are lactose-free cow's milk, almond, coconut or soy milk.

Q: Can I drink alcohol after surgery?

A: We hope that with your commitment to weight loss, alcohol is something you eliminate from your diet. Alcohol is liquid calories and filled with sugar so it can cause weight gain. We ask that you wait at least six months after surgery to consume alcohol and only at a minimum. Please be aware that after having the gastric bypass and duodenal switch, you absorb the alcohol more readily, and will feel the effects faster. Alcohol can also cause dumping.

Q: Can I eat spicy food after surgery?

A: The first 3 months after surgery it is probably best to refrain from spicy foods. After the 3 month time period, you can slowly introduce if you wish.

Q: Why must I maintain a tobacco free life after surgery?

A: Tobacco, smoking or snuff, can increase your risk for ulcers and erosions in your new gastric pouch after weight loss surgery. These complications could lead to emergency surgery and if serious enough, even death. It is best that you continue to reshape your life and maintain the best health possible.

Smoking also has negative effects on your heart, lungs, skin, and circulation and is a known carcinogen that causes cancer.

Q: Is eating fat in my diet bad for me?

A: Absolutely not, depending on the TYPE of fat you are eating!

Q: What are examples of fat that should be included in my new diet?

A: We recommend a high fat, moderate protein, low carb diet and prefer fats to come from natural sources such as: animal proteins, avocados, coconut oil, olive oil, REAL butter, and even full-fat (regular) salad dressings.

Q: What types of fats are bad?

A: It's best to stay away from "Trans" Fats found in canola and other vegetable oils when heated past their smoke point, margarines, shortenings, and some baked goods and fried foods.

Duodenal Switch Questions:

Q: Who should consider Duodenal Switch?

A: Generally, patients with a high BMI (>50) and diabetics are best suited for this procedure. In some occasions we may elect to do the operation in stages with the sleeve being done initially and the 'switch' portion following in 6-18 months.

Q: What is expected weight loss?

A: With the 'switch', patients can expect to lose between 90-100% of their excess weight loss. Long term success is amongst the highest seen in bariatric surgery.

Q: What other medical problems improve with the Duodenal Switch?

A: Diabetes 95-100% resolution, High blood pressure 68-75% resolution, and High cholesterol 70-75% resolution

Q: Is it a big deal to skip my vitamins with the Duodenal Switch?

A: YES. To the average person, not getting enough vitamins may not sound like a big deal. However, when you change the plumbing with a duodenal switch, it can become a life-threatening problem. Complications with the duodenal switch include deficiencies in protein, iron, calcium, fat soluble vitamins, osteoporosis, copper, and zinc.

Q: Do my bowel movements change with the Duodenal Switch?

A: Yes, DS patients will have 1 to 4 bowel movements per day. They may also experience diarrhea and foul-smelling stool.

Gastric Banding Questions:

Q: Will I be able to feel my port?

A: Many patients cannot feel their port. Occasionally, however, as you lose a lot of weight you may be able to feel it but it will not be visible to others.

Q: Why do I feel like my band is ‘losing fluid’ about 10 days after my adjustment?

A: What happens is that your esophagus and your stomach pouch are stronger and more coordinated in pushing liquids and solids through the band.

Q: Do I need to crush my pills?

A: It is often thought that patients cannot eat solid food and must crush their pills in order to consume them. This is actually a myth. You will be able to swallow your pills without difficulty after surgery. This is important as many medications are now time release preparations. These time release medications do not function normally if crushed. BMI patients DO NOT need to crush their pills after surgery.

Q: How long do I have to wait to get my port filled?

A: The usually wait time after surgery is 2 to 4 weeks before a fill.

Q: How is the band adjusted?

A: Adjustments are done in our clinic with the help of fluoroscopy (x-ray). We place a small needle through the skin into the port. This does not hurt most patients. The band is then adjusted by adding or removing fluid as you drink some barium (contrast dye) to adjust your band to the level that is right for you. You can view a video online on our website.

Q: Does the port hurt under the skin?

A: The port usually does not hurt under the skin. Initially, up to 3 weeks post-op you may have some port pain but that usually goes away. The port is located on the left side of your abdomen.

Q: Why don’t I feel full after a meal?

A: We recommend that you stop eating after eating a ½ to one cup portion (4-8 ounces). Not all band patients will feel a sensation of fullness after a meal. If you eat until you are full, it may be too late and cause you to vomit. Also eating large portions and eating past the signs that your pouch is getting full, can cause you to hold food in your esophagus and stretch your new small stomach. It is best to eat a small portion and just stop.

Q: Why must I remain on liquids for 48 hours after my band is adjusted with saline?

A: After a band adjustment, the lining of the stomach will swell and cause your band to feel a lot tighter than it actually is. If you eat solid food too early, then you run the chance of food getting stuck

in your band causing vomiting. When vomiting occurs, more swelling sets in and an unfill will have to be performed even though you may have not needed one.

Q: What if I am still very hungry and my band has been adjusted a few times?

A: More than likely this means that your band ‘sweet spot’ has not been found and you need to still come in for adjustments. Another reason for being hungry is eating too many carbohydrates. When you eat carbs, you crave more carbs and will want to eat when you really aren’t hungry. Make sure you are watching your diet.

Q: What if I don’t want to feel the needle stick when having my port adjusted?

A: Ask your surgeon or NP for a prescription for Emla cream. This cream should be applied over your port site (largest incision) about 2 hours before your lap band fill.

Gastric Bypass Questions:

Q: Why does my left side hurt after surgery?

A: If you have had a gastric bypass, the left lower incision [as you are looking at your feet] will often hurt or be ‘sore’ for several weeks after surgery. The reason is that there are several sutures underneath the skin that are healing. This is the area where one of the stapling devices that we use was placed into your abdomen. You may feel a ‘knot’ or a ‘ball’ that is tender when you push on it. This ‘ball’ is some muscle that is bunched together. This ‘ball’ will go away after several weeks. You might feel some ‘pulling’ or ‘stretching’ or ‘spasm’ directly under this area. Feel reassured that this is a normal part of healing.

Q: What is dumping syndrome?

A: Dumping syndrome is also called rapid gastric emptying and occurs when the undigested food contents of your stomach are rapidly passed into your small intestine. Foods high in sugar, simple carbohydrates, and foods high in fat can cause dumping syndrome. This usually occurs with gastric surgery like the gastric bypass.

Q: How can I avoid the dumping syndrome?

A: Avoid high fat, simple sugars, and fried foods. Avoid drinking while you eat because this may push the undigested food too quickly into the small intestine. Also, over-eating or eating until you are full should be avoided. The best thing is to eat small meals and stop before you feel uncomfortable and full. Also, you may want to introduce new foods one at a time and in small quantities. Also eating protein at every meal will stabilize your blood sugars and avoid sugar spikes and crashes.

Q: Will I be overly hungry after gastric bypass surgery since I’m eating only 4oz at each meal?

A: Your new stomach will only hold about 4 ounces of food and consuming that amount will make you feel full. Also, since gastric bypass patients have less ghrelin, hunger hormone, in their circulation they are not as hungry as they used to feel.

Q: How much weight can I expect to lose?

A: The average gastric bypass patient will lose 70% -80% of their excess weight at two years.

Sleeve Gastrectomy Questions:

Q: How much weight loss should I expect to lose after having the Gastric sleeve procedure?

A: The statistics show that the **average** weight loss with the vertical sleeve gastrectomy is 60-75percent of excess weight. So, if you are 100 pounds overweight, the average patient will lose 60-75 pounds.

Q: Is the sleeve gastrectomy a ‘quick fix’ surgery?

A: The vertical sleeve gastrectomy takes a lifelong commitment to healthy lifestyle changes in order to lose the weight and keep the weight off. Since there is not a malabsorption component, like the gastric bypass, the weight loss is often slower, and it takes a greater effort with exercise and healthy eating in order to reach your goals.

Revision Surgery Questions:

Q: What revision surgeries do you perform at BMI of Texas?

A: BMI of Texas performs various revision surgeries. One of the more common procedures is a Vertical Banded Gastroplasty (VBG or stomach stapling and banding) conversion to the Roux en Y Gastric Bypass. Another revision surgery is Lap Adjustable Gastric Band converted to Sleeve Gastrectomy or RNY Gastric bypass. Also, Roux-en-Y Gastric Bypass patients that had their surgeries done early-on usually have the option to undergo a gastric pouch revision which includes a lap band over gastric bypass pouch, sleeve the gastric pouch or Overstitch.

Q: Are there risks with revision surgeries?

A: Revision surgeries have more risk than first time weight loss surgeries. It is often very complicated to revise a previous weight loss surgery to a completely different operation, and risks can be high. As a result, not all patients will qualify for a revision surgery, especially if the risks outweigh the potential benefits.

Q: Do you perform any endoscopic revision procedures?

A: BMI of Texas performs the Overstitch endoscopic procedure. It is a new revision weight loss procedure done through the mouth and without incisions. A scope is placed through the patient’s mouth and permanent fasteners are used in the pouch. This shrinks the pouch and renews the restriction in patients who have experienced weight regain many years after their original operation. The pouch is made smaller by creating folds or pleats which can drastically reduce the size of the pouch and the stoma.

Q: Do the endoscopic revision surgeries work?

A: Overstitch is a new endoscopic suturing device which Dr. Englehardt is certified to use to help reduce the size of the gastric pouch as well as the connection between the stomach and the intestine in patients who have undergone gastric bypass and have experienced weight regain. Not all patients are candidates. Our Overstitch program is combined with our CMSP program, and for patients who are appropriate candidates we have seen impressive additional weight loss by combining the programs. Overstitch is not currently covered by insurance.

General Questions:

Q: How do I increase my metabolism?

A: Daily exercise is a great way to increase your metabolism. Interval training is a great way to add variety to your workout and it helps to burn more calories as your heart rate varies. Eating 3- 5 small lean meals per day will help improve your metabolism. Remember not to skip out on breakfast. Your meals should include lean protein and organic vegetables. Drink plenty of cold water and green tea, at least 64 ounces daily. Most importantly get enough rest, sleeping at least 8 hours.

Q: Eating Red Meat, is it bad for you?

A: It is very common for bypass patients to not have an appetite for red meat after surgery. Surgeons are not sure why this happens; however it is very common. It is also common for patients to state that red meat makes them nauseous after bypass surgery. Sometimes this aversion to red meat can last up to 6 months. Appetite for red meat will return eventually. Do not be alarmed. It will take some time, so just be patient.

Q: Do men lose weight faster than women?

A: Remember fat is burned due to lean muscle mass. Men usually have more muscle mass than women, so they tend to lose weight faster. It is imperative that weight loss patients maintain their muscle mass by incorporating weightlifting in their daily exercise routine.

Q: How soon after surgery should I plan on getting pregnant?

A: We would like you to wait at least one year after bariatric surgery to get pregnant. We know that this may not be in your specific plan, so please notify us if you plan to get pregnant sooner so we can follow your nutrition and labs.

Q: Is plastic surgery necessary after weight loss surgery?

A: Plastic surgery is not necessary after weight loss surgery. If excess skin does get in your way, you can try the cloth body contour devices that are out on the market. This may eliminate the need for plastic surgery. In the event that the skin starts breaking down and developing infections, you need to notify the office or your primary care doctor so you can get the proper treatment.

Q: How long should I wait before I have plastic surgery?

A: Waiting at least 12 - 18 months from your surgery date is probably the best time to have plastic surgery. At 18 months you have probably lost most of your excess weight and will have the maximum excess skin. You would hate to spend on plastic surgery too early and then lose more weight and have excess skin again.

Frequently asked Questions Regarding “Over the Counter” Medications:

Cold/Sinus and Flu or Flu-like Symptoms:

Can Take:	Cannot Take:
Tylenol and Tylenol based products	Advil and Advil based products
Nyquil/Dayquil	Ibuprofen
Theraflu	Aleve
Zyrtec/Zyrtec D	Naproxen Sodium
Claritin	Aspirin
Allegra	BC Powder

Nausea/Upset stomach:

Can Take:	Cannot Take:
Mylanta/Maalox	Pepto Bismol
Prilosec/Nexium	Emetrol

Constipation:

Better Options:	Less Preferred Options:
Benefiber	Metamucil
Citracel Caplet or powder	Dulcolax Pills (cramping)
Mineral Oil/ Coconut Oil	
Magnesium or Magnesium Citrate	
Milk of Magnesia	
Dulcolax Suppository	

Diarrhea: Try Citracel or Benefiber. May take Imodium but need to call the office if more than 24 hours.

If you have additional questions never hesitate to contact the nurse practitioner or medical assistants.

Important Contacts

Doctors:

Terive Duperier, M.D.

Bariatric/General Surgeon/Thyroid Specialist

Email: drduperier@bmioftexas.com

Richard Englehardt, MD, FACS, FASMBS

Bariatric/General Surgeon

Email: drenglehardt@bmioftexas.com

Physician's Assistant:

Christa Black –PA-C

Email: cblack@bmioftexas.com

Nurse Practitioners:

Amber Willborn, FNP-C

Email: amber.willborn@bmioftexas.com

Registered Dietitians:

Katie Lightfield, MS, RD, LD

Email: katie.lightfield@bmioftexas.com

Behavioral Health Specialist:

Natasha Klavon, MA, LPC

Email: natasha.klavon@bmioftexas.com

Practice Administrator:

April Hernandez

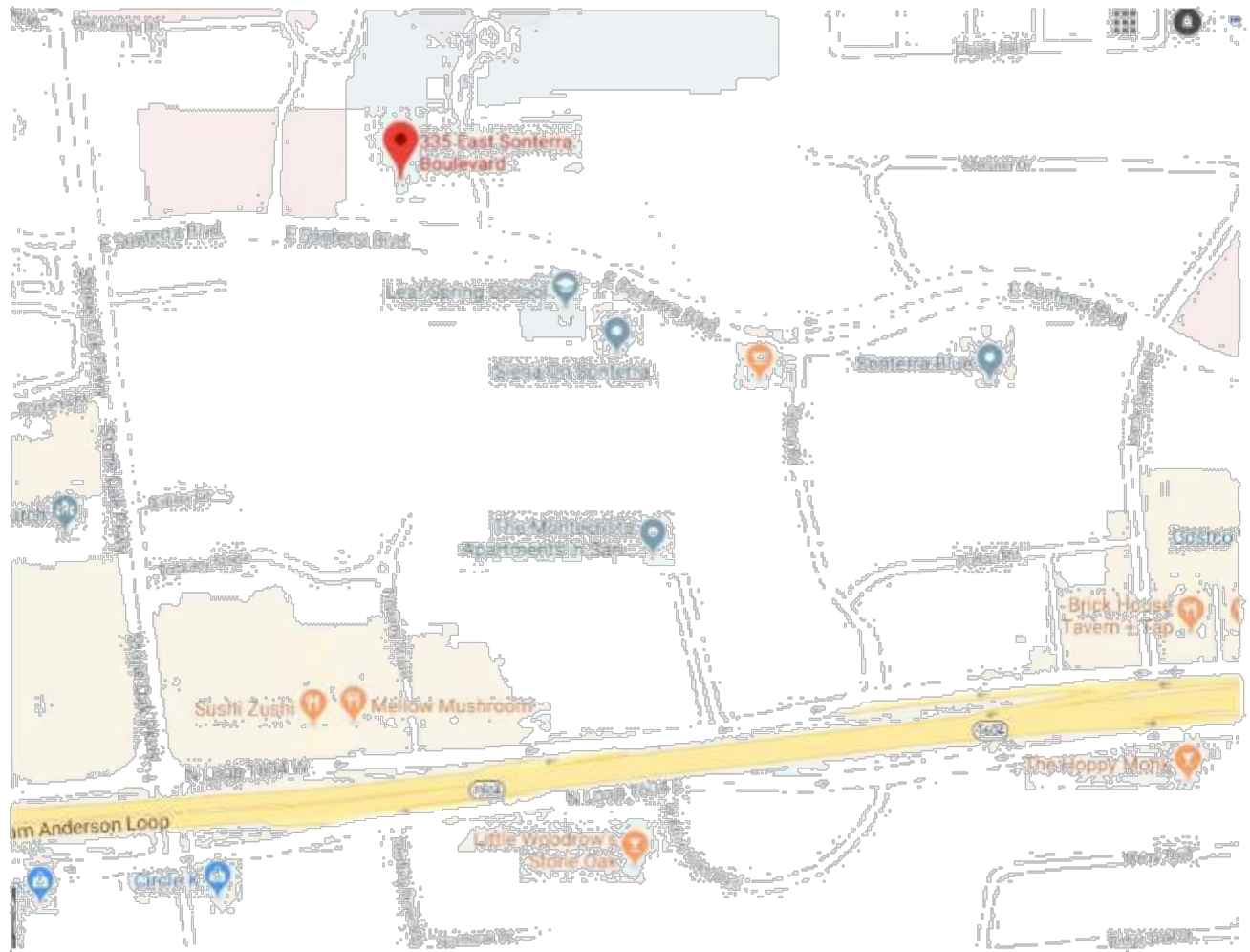
Email: april.hernandez@bmioftexas.com

Clinic Supervisor :

Haley DeLaGarza

Email: haley.delagarza@bmioftexas.com

Directions to BMI of Texas



OFFICE LOCATION

335 E. Sonterra, Suite 200
San Antonio, TX 78258