MGB-SURGERY.COM

Patient Handbook

A practical and educational guide for the MGB patient

David E. Hargroder, M.D.

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Greetings from Dr. Hargroder

I would like to take this opportunity to welcome you to our MGB family. My staff and I are committed to making your experience as pleasant and hassle-free as possible. We strive to provide outstanding patient care, as well as support and assistance before and after surgery, in order to achieve exceptional short term and long term results. We have found that one of the best ways to ensure excellent results is to provide excellent pre-operative education and preparation. The pre-operative process is fairly extensive, but you will find that when you are ready to schedule your surgery date, very few questions will be left unanswered.

-David E. Hargroder, M.D.

- **We are committed to excellence in pre-op and post-op education and quality patient care.**
- **We are committed to making you and your family feel comfortable with the therapeutic decision you have made.**
- **We are committed to making the experience and success of our out of state and long distance patients equal to that of our local patients.**
- **We are committed to educating and informing the medical community about the Mini-Gastric Bypass procedure.**

Selection Guidelines

NOT ALL PATIENTS ARE CANDIDATES FOR LAPAROSCOPIC GASTRIC BYPASS.

Ideally, patients should meet the following guidelines:

Communication Access

You should have a reliable personal e-mail address that can accept "attachments" and that is not associated with your place of employment.

Pre-Operative Screening Information

In order to be considered a candidate for the Mini-Gastric Bypass procedure, you must meet the following pre-operative screening.

Age between 16 and 65. Rare exceptions are made to very well motivated, very well informed patients who have the strong support of their families and their physicians.

A Body Mass Index (BMI) of 40 kg/m² or above. For more information on Body Mass index refer to the patient education material on page 23 of this manual.

A Body Mass Index (BMI) of 35 to 40 kg/m² with at least 1 co-morbidity. A co-morbidity is a medical condition such as diabetes, high blood pressure, sleep apnea, or any other medical condition that is thought to be present due to a patient's weight.

Patients who weigh more than 400 pounds must be evaluated on an individual basis by the surgeon.

Patients must presently be working, either in or out of the home. Patients who are students or housewives can meet these guidelines if they are mobile and able to be active. Not all patients are candidates for Laparoscopic Gastric Bypass. Disabled and wheelchair bound patients are generally not good candidates for the surgery. Consideration will be given on an individual basis.

No history of previous obesity surgery. We do not accept patients who have had previous vertical banded gastroplasty, "stomach stapling," Roux-en-Y or other types of open weight loss surgery. We do not accept patients for revision of other types of weight loss surgery.

EXCEPTION: We will consider accepting patients who have undergone Lap-Band surgery or the Laparoscopic Gastric Sleeve procedure and wish to convert to the Mini-Gastric Bypass. Each case is evaluated by our surgeon to determine if the patient is an acceptable candidate

No history of major abdominal surgery. Some operations such as appendectomy, gallbladder removal, hysterectomy, C-sections and a few other operations may be acceptable. Please bring all abdominal operations you have had to our surgeon's attention as early as possible!

No history of alcohol abuse or drug use. At the sole discretion of the surgeon, exceptions to this rule can be applied if there is strong support from the patient's primary care physician and mental health provider that the candidate for surgery has shown evidence of overcoming his or her addiction and is at low risk for relapse.

Family Support. The patient must show evidence of a strong, supportive and stable family structure and have the documented support of his or her immediate family.

Personal Physician's Support. The patient must have a supportive personal physician (family practice or internal medicine) who will:

- Support the patient's desire to undergo Laparoscopic Mini-Gastric Bypass. (If your physician is not familiar with the Mini-Gastric Bypass, we will provide him or her with information about the MGB.)
- Perform a detailed and complete History and Physical Exam and provide a copy to our office.
- Agree to be actively involved in your post-operative follow-up medical care.
- If your physician is opposed to bariatric surgery, we may be able to provide you with names of physicians in your area that do support weight loss surgery.

No history of major psychiatric illness. Depression is very common among obese patients and does not necessarily exclude you as a candidate for surgery. If you suffer from depression, you are strongly encouraged to seek professional help from your family practice physician or a qualified mental health care professional and continue with treatment after surgery.

No history of:

- Recent or long term prednisone therapy for any reason (Prednisone increases the risk of infection, interferes with wound healing and increases the risk of wound complications.)
- Systemic Lupus Erythematosis (SLE), Rheumatoid Arthritis or other autoimmune disease or collagen vascular disease.

Documented Evidence Of:

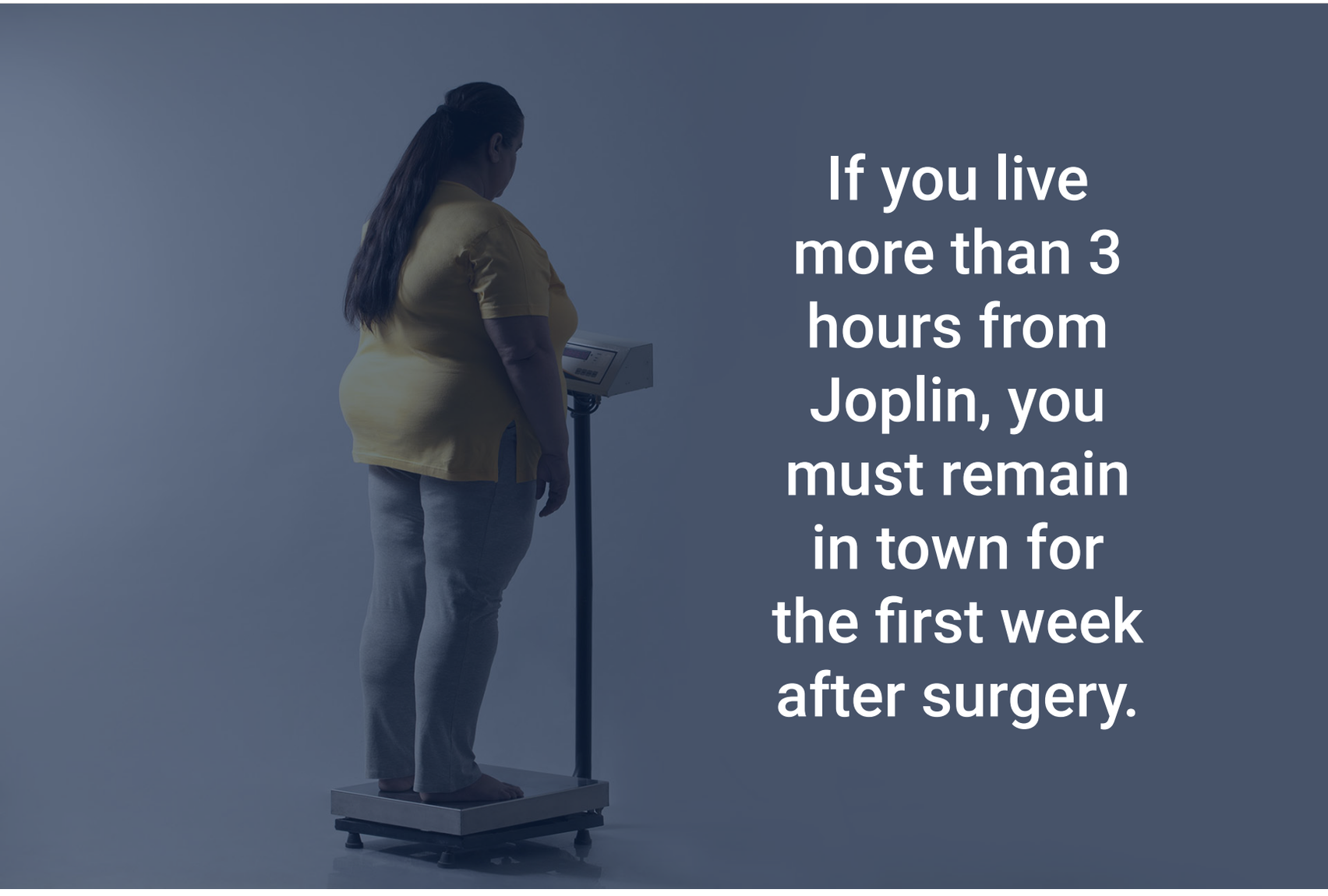
Commitment to participate in a post-operative exercise program.

Willingness to work with medical team by following directions and communicating in a timely manner.

Commitment to maintain followup with medical team to decrease the risks of complications such as ulcers or vitamin, mineral and other nutritional deficiencies.

If you live over 3 hours from Joplin, you are required to remain in town until your first post-op visit.

The first post-op visit is about 1 week after surgery.



Take The First Step

To begin the evaluation process, fill out the basic patient information form.

The patient information form can be accessed by clicking on the above link or by going to http://mgb-surgery.com/how-to-get-started/

IMPORTANT NOTICE

Dr. Hargroder does not accept insurance for the Mini-Gastric Bypass procedure. You should have appropriate financial resources to cover the costs associated with the surgery as well as potential complications associated with the surgery.

Follow These Steps To Complete The Pre-Op Process

Important Notice: Your completed packet which includes all of the material in the following 12 steps along with your payment must be in Dr. Hargroder's office 2 weeks prior to your scheduled surgery date. Failure to have your packet completed or payment made will likely result in a postponement of your surgery.

1. Read the selection guidelines. Not everyone is a candidate for gastric bypass surgery. The selection guidelines will help you to determine if you are a good surgical candidate. Each case is taken individually, so feel free to contact Dr. Hargroder's office if you have any questions about these guidelines.

2. Join the mailing list. Once you have filled out your initial contact information form you will be invited to join our private Facebook group. This is a great place to meet patients that have already had surgery and others who are preparing for surgery, just like you. This site offers you an opportunity to request information and share information with fellow MGB post ops.

3. Complete detailed online patient information form. You will receive instructions on how to fill out your online patient information form from our office.

4. Complete patient education and reading material. The patient education and reading material encompasses a variety of sources. This, of course, is your starting point. This manual has been put together to help you to educate yourself regarding the MGB as well as alternative therapies. Part of your education process will also involve a thorough internet search for information. You are also expected to contact patients and office staff to answer any questions you may have about the Mini-Gastric Bypass procedure.

5. Primary Care Physician to perform detailed History & Physical and write letter supporting your decision to undergo weight loss surgery. It is important that your Primary Care Physician (PCP) support you in your decision to have weight loss surgery. He or she has a better understanding of your long term health issues than anyone. Dr. Hargroder will rely heavily on the information he receives from your PCP to determine if you are a good candidate for surgery. In some cases, additional pre-operative diagnostic studies may be needed prior to surgery, and the information received from your PCP's office will help to make that determination.

Your Primary Care Physician will play a vital role in your pre-op and post-op care.

Your PCP should fully support you in your decision to undergo the Mini-Gastric Bypass Procedure.

Please ask your Primary Care Physician to provide a letter which covers two important issues:

- First, your physician should support your decision to have weight loss surgery.
  If your doctor is not familiar with the Mini-Gastric Bypass, let Dr. Hargroder know and he will be happy to provide additional information to your physician.
- Second, the letter should state that your physician will continue to care for you after gastric bypass surgery. This may seem like an unusual request, but keep in mind that Bariatric Surgery (weight loss surgery) is still considered a fairly controversial area of medicine. There are still some primary care physicians who are so opposed to weight loss surgery that they will refuse to continue on as your doctor should you undergo such a procedure. Please make it clear to your physician that Dr. Hargroder does not expect the primary care physician to provide post-op surgical care. Dr. Hargroder simply wants to make sure that your doctor will be there for you and continue to care for your medical needs after MGB surgery.

On a positive note, the number of primary care physicians who recognize the tremendous benefits of Bariatric Surgery and specifically, the Mini-Gastric Bypass procedure continues to grow and the positive feedback received from the many PCP's who have entrusted their patients to Dr. Hargroder is encouraging.

Besides the letter of support, your Primary Care Physician will need to provide:

1. A detailed History and Physical (performed anytime in the past 30 days)

2. Any recent Lab, EKG's, or other pertinent clinical information.

3. Laboratory data should include a CBC and a Comprehensive Metabolic Panel, a HgA1c, and a Lipid Panel which should be drawn within 30 days of your surgery date (within 3 weeks of your surgery date if you are diabetic or if you are taking diuretics such as Lasix or HCTZ.)

4. If you are over the age of 39 you should have an EKG that is less than 6 months old. If your EKG is abnormal, you may need a referral to a cardiologist for additional cardiac clearance.

After surgery, your body goes through some major physiologic changes. Your PCP will be monitoring your various medical conditions such as blood pressure, blood sugar level, cholesterol level, and other medical issues. Of course, Dr. Hargroder will always be available to assist in your care should you or your PCP need him.

6. Write your patient letter. The patient letter is a vital part of the application package. It gives you the opportunity to explain, in your own words, the journey you have traveled which has ultimately led to your decision to undergo weight loss surgery. Do not put it off. **It must be turned in at least 2 weeks prior to your surgery date.** Take your time. Find a quiet place to be alone and devote your full attention to your letter. It does not have to be lengthy, and it won't be graded on grammar or punctuation, but it will be reviewed for content. Your letter should be typed, double spaced, signed, and dated.

The letter may contain any information that you consider appropriate, but at the very minimum, it must answer the following questions:

- Who are you? (Marital status, employment, education level, etc.)
- What made you choose the Mini-Gastric Bypass operation over other options available for weight loss?
- How has your weight affected your life?
- What are your hopes and expectations after MGB surgery?
- What are the risks of MGB surgery?
- How is the Mini-Gastric Bypass procedure performed?
- What are some of the controversies surrounding the Mini-Gastric Bypass procedure?
- What is expected of you after your surgery? (eg. Follow-up visits, exercise, medications, etc.)
- If you live more than 3 hours from Carthage, your letter should state your willingness to remain in Carthage until your first follow-up visit and to travel to Joplin for future follow-up appointments at 1 month, 3 months, 6 months, 1 year and yearly thereafter.

Your letter should be typed, double spaced, signed and dated.

7. Psychological evaluation. The psychological evaluation is a necessary part of the pre-op evaluation process. The main purpose of the evaluation is to rule out any serious eating disorders, personality disorders, mental illness, substance abuse issues or other factors that may interfere with your ability to comply with the changes in lifestyle that will be required after surgery.

A single session is usually sufficient to complete the evaluation process; however, it is recommended that you maintain an ongoing relationship with your psychiatric professional. You may find periodic sessions in the post-operative period to be beneficial as you deal with body image issues, relationship issues, or other newly discovered issues that come to light after surgery.

8. Contact 10 people who have had the Mini-Gastric Bypass Surgery. This is usually easily accomplished by joining our MGB private Facebook page. It has become customary for some of our patients to write lengthy "contact letters"

however these letters are not required. Any patient that you have met through the discussion board, at seminars, or social events will count toward your 10 contacts. Please include a short summary of the information you gathered from each of your ten contacts. Include the name and email address of the contact with each summary.

9. Photographs. Photographs should include a frontal and side view in form fitting clothes such as exercise clothing. Digital photographs submitted via disk or e-mail, or printed photographs on quality photographic paper at least 4x5 inches are acceptable. Please do not submit Polaroid photos. Although most patients dread providing pre-op photos, they are a necessary part of the pre-op evaluation in order to adequately assess your body contour prior to surgery. If you have had any previous abdominal surgery, you may be asked to provide a photograph of your abdomen so Dr. Hargroder can view your surgical scars.

10. Select a Primary Support Person and have them write a detailed support letter. It is important to have the people you love and those who love you standing beside you during this process. The benefit of a supportive spouse, parent, child or friend cannot be overstated. The whole experience can be an emotional roller coaster. It is the support person's responsibility to comfort you during the bad moments and celebrate with you during the good ones. It is therefore important that your support person be thoroughly informed about the operation as well as pre-op and post-op issues. **If you are married, your spouse must be your support person.** If you are not married, any close family member or friend will do. Your support person is expected to accompany you to your pre-op clinic visit, be with you on the day of surgery, and remain with you in the week following surgery.

The family support letter should include:

- Information about the individual's relationship with the patient
- Describe the family support system
- The reasons the patient is undergoing the procedure
- The technical aspects of the procedure
- Expectations after the procedure
- Physical and emotional issues before and after the procedure
- Risks and benefits of the procedure.

11. Pre-Admission Testing and Preoperative clinic visit. You will report to the hospital the day before your surgery date for a final review of your clinical information with the surgical nurse and anesthesiologist. Confirm the time of this visit with Dr. Hargroder or his staff.

Dr. Hargroder's Clinic is usually held one to two days before your scheduled surgery date. Your support person must attend, and any other family members are also encouraged to attend this clinic visit with you. It will be your final opportunity to have questions answered, issues resolved, and fears allayed.

The visit is not a typical "doctors office visit". A majority of the time is spent in group session. Dr. Hargroder will give a brief talk followed by a question and answer period. Patients, family, and friends will be given the opportunity to ask questions. Following this group session, you will have an opportunity to meet privately with Dr. Hargroder to go over last minute details, undergo a brief history and physical exam, and to discuss any private issues you may have. This pre-op clinic will last a few hours.

Payment will be collected in full the day before your surgery, for Dr. Hargroder's portion this MUST in the form of cash or a cashiers check and made out to Dr. David Hargroder. The Hospital portion will all so be collected the day before surgery, this can be paid by credit card, personal check or cashiers check. 2 separate checks or paymnets must be made out for hospital on for Mercy Carthage for $8500.00.

12. Read arbitration documents. These documents will be e-mailed to you approximately 2 weeks before your surgery date. You may ask for them sooner so you have plenty of time to review them. Read these documents carefully as they are legally binding documents, but do not sign them until your pre-op office visit. You should bring them with you to your pre-op clinic visit where you will be asked to sign them in the presence of Dr. Hargroder's office staff. **These papers must be signed prior to surgery.**

REMEMBER!!!
Your completed packet must be turned in to Dr. Hargroder's office at least 2 weeks prior to your scheduled surgery date to avoid postponement of your surgery!!!

Summary Of Steps

1. Read the selection guidelines.
2. Join the mailing list.
3. Complete detailed online patient information form.
4. Complete patient education and reading material.
5. Primary Care Physician to perform detailed History & Physical and write letter supporting your decision to undergo Mini-Gastric Bypass.
6. Write your patient letter.
7. Select a Primary Support Person and have them write a detailed support letter.
8. Psychological evaluation.
9. Contact 10 of Dr. Hargroder's MGB post-op patients.
10. Photographs
11. Pre-Admission Testing and Preoperative clinic visit.
12. Read the arbitration documents and bring them with you to your pre-op clinic. Do not sign the document until your pre-op clinic visit.

YOUR SURGERY MAY BE TENTATIVELY SCHEDULED BEFORE ALL STEPS ARE COMPLETED. KEEP IN MIND HOWEVER, THAT THE SCHEDULED DATE IS SUBJECT TO CHANGE IF ALL STEPS ARE NOT COMPLETED, OR IF INFORMATION GATHERED DURING THE PRE-OP PROCESS INDICATES FURTHER WORKUP IS NECESSARY.

Timeline From Pre-op To Post-op

1 Month Before Surgery

Attend local support group meeting or educational seminar or webinar.

Begin making contact with at least 10 patients who have had the Mini-Gastric Bypass.

Have Primary Care Physician write letter supporting your decision to have Mini-Gastric Bypass surgery for weight loss and complete History & Physical. Fax or mail letter and H&P to the MGB office.

Stop contraceptive hormones

2 Weeks Before Surgery

Turn in your completed packet to the main office at 3125 Dr. Russel Smith Way Carthage MO 64836.

Discontinue all use of caffeine containing drinks.

Discontinue all tobacco products. Remember, the purpose of the MGB is to improve your health and prolong your life!

Discontinue use of aspirin or other aspirin type drugs such as Ibuprofen (Advil, Motrin); Naproxen (Naprosyn, Aleve); Diclofenac (Voltaren, Cataflam); Meloxicam (Mobic) or any medication of the class Non-Steroidal Anti- inflammatory Drugs (NSAID's)

There are certain medications that will need to be discontinued prior to your surgery. Make sure your medication list is made available for Dr. Hargroder as early as possibly to determine which medication may need to be discontinued.

3 Days Before Surgery

You should eat lightly for the next couple of days. This can include clear liquids, light sandwiches, and small portion meals.

1 Day Before Surgery

Milk of Magnesia: 2 tablespoons followed by a full glass of water to be taken in the morning. Meet with hospital business office to submit payment and visit with nursing staff to obtain medical information for the hospital record.

Meet at Dr. Hargroder's office. Plan on spending at least 3 hours with Dr. Hargroder and his staff. Your support person must be with you.

Bring a copy of your arbitration papers with you to Dr. Hargroder's office. You will sign arbitration papers in the presence of Dr. Hargroder's Staff.

Evening meal: You have been eating lightly for the past couple of days. Tonight is your night to enjoy a nice meal out. Don't overindulge, but feel free to have a filling meal.

DO NOT EAT OR DRINK ANYTHING AFTER MIDNIGHT.

Morning Of Surgery

Men: Beard and mustache must be completely shaved. A clean shaven face is important to reduce anesthesia risks regarding airway management.

Women: Remove all fingernail polish. Do not apply lotion after your morning shower.

Sponge bathe with special antimicrobial towels.

Take medications that you have been instructed to by Dr. Hargroder or the Pre Op Nurses with a small sip of water (This is the only exception to nothing to eat or drink after midnight) Arrive at the hospital 2 hours prior to your scheduled surgery. Go to the registration desk or directly to outpatient surgery if directed to do so.

Sign consent with nurse as witness.

Afternoon Of Surgery

You are expected to be out of bed and walking the hallways by the afternoon of your surgery.

You will begin your Stage I diet immediately after surgery.

Make sure to arrive at the hospital 2 hours before your scheduled procedure.

You will have Leg Compression Devices on your legs to prevent blood clots from developing. You should have them on at all times while you are in bed.

You will have pain medication available to you with the push of a button. Most patients discontinue their pain medication by late night or early in the morning after surgery. (Note: Pain immediately after surgery in the recovery room is normal, but pain that develops later in the day should be reported to your nurse immediately)

Bloody fluid draining from your incisions is common. You should not be alarmed, even if large amounts of fluid drain from your incisions. Let your nurse know if you need assistance.

1st Week After Surgery

Medication:

- Prilosec 20 mg: take one tablet twice a day for 3 month
- Pepto-Bismol: 1 tablespoon every 6 hours daily for 3 months
- Tums: as needed for indigestion. 4 to 6 per day
- Citrucel 2 tsp (or 2 tablets) twice daily for lifetime.

Stage I diet

- Gatorade
  Approximately 60 oz per day
  May substitute V-8 juice

- Broth
  Not soup (you may strain soup)
  Bouillon or canned broth

- Yogurt
  Not frozen
  May be fruit flavored, but not solid fruit
  May be whipped

- Saltine Crackers
  May substitute goldfish crackers

Call Dr. Hargroder on his cell phone (417- 483-7090) every day between 12 noon and 1 pm during the first week after surgery.

Schedule appointment with Dr. Hargroder's office (417-206-2900) for your 1 week clinic follow-up visit. Please make this appointment at your earliest convenience if arrangements have not already been made by your hospital nurse at discharge.

If you have hypertension or diabetes, you will be instructed to discontinue your blood pressure and diabetes medication immediately after surgery. You will however be expected to monitor your blood pressure and blood sugars and report them to Dr. Hargroder each day for the first week.

No driving during the first week.

2nd Week After Surgery

Continue Stage I diet.

Continue Prilosec and Liquid Pepto-Bismol (for total of 3 months).

Report any abdominal pain, indigestion, nausea, or other concerns to Dr. Hargroder.

Gradually increase your level of physical activity. Use common sense. If it hurts, don't do it!

Begin an exercise program. This might include walking, aerobics, light weight lifting, bicycling, or any program you feel comfortable with. Start off slowly and advance your speed and intensity over the next several weeks.

Begin driving short distances. Remember that restrictions on driving are as much for the other guy on the road as they are for you. Your reflexes may be delayed and you may experience some fatigue in the first couple of weeks after surgery so please use good judgment before getting behind the wheel.

3rd Week After Surgery

Start taking your multivitamin. You should take 1 bariatric vitamin a day and continue this for the rest of your life. Stopping your vitamin supplement can result in serious complications.

If you still have your gallbladder, begin Actigall 300 mg twice a day. A prescription will be given to you during your 1 week follow-up visit.

Begin Stage II diet

- Soft foods such as mashed potatoes, refried beans, cottage cheese, pureed meals
- Introduce new food items one at a time

1 Month After Surgery

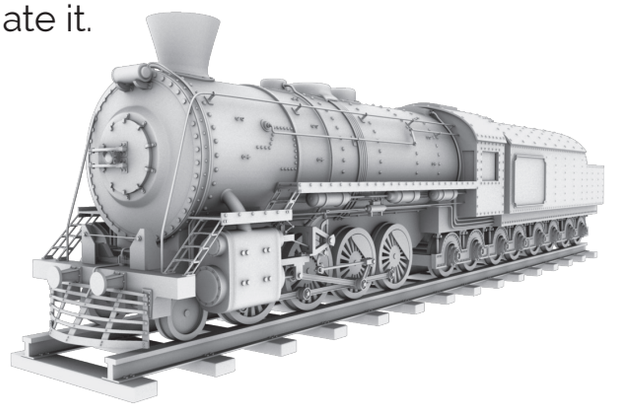
Follow-up appointment with Dr. Hargroder to discuss diet, medication, and quality of life issues.

Gradually enter into stage III diet.

- Introduce new food items one at a time
- Remember: If something you have eaten doesn't agree with you, it may not necessarily be the food you ate but the way you ate it.

  Take small bites
  Eat Slowly and . . .
  CHEW CHEW CHEW!!!

- It's not just what you eat - it's how you eat it!



3 Months After Surgery

Follow-up appointment with Dr. Hargroder to discuss diet, medication, health and quality of life issues.

Follow up appointments are important both for you and for Dr. Hargroder.

Continue to expand stage III diet.

By this time, you should already be exercising regularly. You may wish to take it up a notch and enter into a formal exercise program.

You may discontinue your Prilosec and Pepto-Bismol. (If you experience symptoms of indigestion, notify Dr. Hargroder).

Continue your Actigall as long as you are losing at least 10 pounds per month.

Expect to see some thinning of your hair. This should stop around the 6th – 8th month post-op. Make sure you are getting in adequate amounts of protein (at least 60 grams per day) and take a zinc supplement (200 mg of zinc sulfate 3 x a day) to help minimize the amount of hair loss.

As more time passes, you run the risk of falling into bad habits. Keeping your follow-up appointments will help to keep you on the right track.

Consider having your primary care physician order some basic lab tests. See appendix I for recommended periodic and yearly lab.

6 Months After Surgery

Follow up with Dr. Hargroder to discuss diet, medication, health and quality of life issues.

Periodic lab at the discretion of your primary care physician.

12 Months After Surgery And Every 6 Months Thereafter

Follow up with Dr. Hargroder to discuss diet, medication, and quality of life issues.

Data from your follow up appointments will allow Dr. Hargroder to report statistics on average weight loss and overall success in eliminating co-morbidities.

Patient Education Material

Approximately 127 million adults in the United States are overweight, 60 million obese, and nine million severely obese. Currently, 64.5 percent of U.S. adults, age 20 years and older, are overweight and 30.5% are obese. It is the second leading cause of preventable deaths in the United States.

Obesity is associated with a number of co-morbidities including hypertension, diabetes, sleep apnea, elevated cholesterol levels, arthritis, cardiac dysfunction, increased risk of certain types of cancer, and certain endocrine abnormalities. Besides the health risks that obesity brings, the social stigma can also be a serious problem to deal with. Obesity seems to be the last socially acceptable prejudice.

THE DECISION TO UNDERGO GASTRIC BYPASS SURGERY IS NOT ONE TO BE TAKEN LIGHTLY.

Besides the numerous diet and exercise programs available to help you lose weight, there are a number of surgical therapies. Gastric bypass surgery does require a significant adjustment in your lifestyle. The better educated you are about these lifestyle changes, the easier they will be to manage. You should have a clear understanding of the operation you are about to undergo.

You should also make sure that alternative therapies have been thoroughly investigated and considered. Once you weigh the risks and benefits of each alternative therapy, you will be ready to make an informed decision.

It is important that you understand that the MGB is not cosmetic surgery. There is no fat removed or suctioned away. As a matter of fact there is nothing removed. The MGB is not performed to make you "look better". It is performed to improve your health and prolong your life. If, along the way, your appearance improves – that's an added bonus!

Co-Morbidities and other health issues associated with Obesity

Hypertension

Diabetes Sleep Anea

Arthritis Elevated

Cholesterol Gastro esophageal reflux (GERD)

Urinary Stress Incontinence

Congestive Heart Failure

Infertility

Asthma

Depression

Social Discrimination

Premature Death

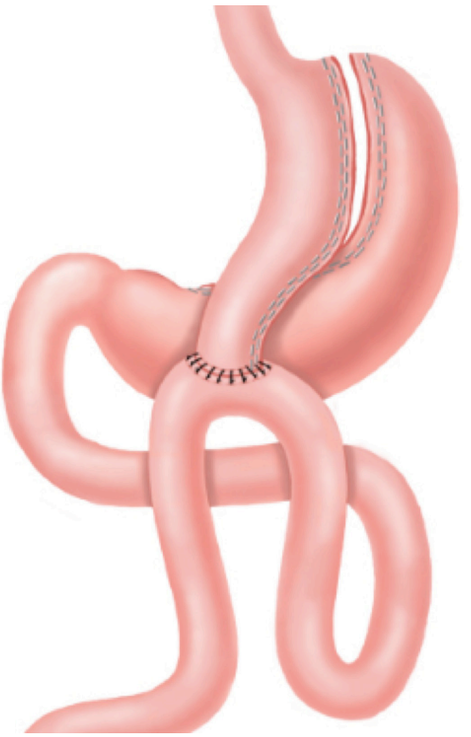
Types Of Weight Loss Surgery

Surgery for weight loss can be divided into various categories. The surgery can be carried out laparoscopically (with several small 1/2 - 1 inch incisions), or it can be done as an open procedure (through either a vertical or transverse incision several inches long). It can be a purely restrictive procedure, purely malabsorptive, or more commonly, a combination of the two.

Components of the MGB

1. Restrictive

2. Malabsorptive



A partial list of surgical procedures that you should investigate includes:

Restrictive

Vertical Banded Gastroplasty

Gastric Sleeve

Lap-Band

Malabsorptive

Jejunoileal bypass (historical)

Restrictive & Malabsorptive

Mason Procedure (historical)

Short limb Roux-ex-Y

Long limb Roux-en-Y

Uncut Roux-en-Y

Biliopancreatic diversion

BPD with duodenal switch

Mini-Gastric Bypass

Definitions

Anastomosis: The connection between 2 hollow organs. In the case of the Mini-Gastric Bypass, it is the connection between the stomach and the small intestine

Bariatric: From the Greek root baros - meaning weight. Bariatric Surgery refers to weight loss surgery.

Body Mass Index: The body mass index is derived from a formula that compares a person's weight to their height. This index allows us to standardize references to an individual's risk of obesity related illnesses. For example a 5 foot tall 210 pound individual will have the same body mass index as an individual who is 6 feet tall and weighs 300 pounds. Both of them have a BMI of 41 which makes them both morbidly obese.

Many insurance companies use the Body Mass Index when considering reimbursement for weight loss surgery. The National Institute of Health has issued guidelines which state that patients with a BMI of 35 or greater with co -morbidities, or a BMI of 40 or greater even without co-morbidities should be considered surgical candidates.

Gastritis: Inflammation of the stomach lining. It can be cause by a number of factors including coffee, sodas, aspirin and other NSAID's, alcohol, and bile.

Marginal Ulcer: An ulcer that occurs at the anastomosis between the stomach and small intestine (jejunum)

Morbid Obesity: A person is considered morbidly obese if their BMI is over 40 or if they weigh 100 pounds or more (for men) or 80 pounds or more (for women) than the recommended weight for their height.

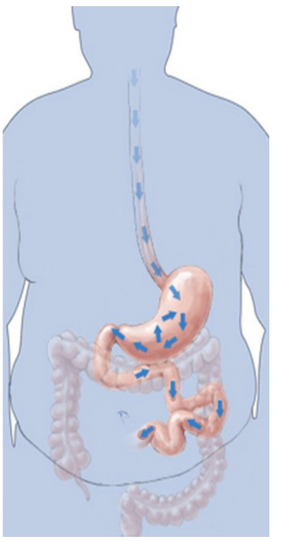
Overweight: A person is considered overweight if their BMI is between 25 and 29.99 or if they weigh 25 – 30 pounds more than the recommended weight for their height.

Obese: A person is considered obese if their BMI is between 30 and 40 or if they weigh at least 30 pounds more than the recommended weight for their height.

Understanding Mini-Gastric Bypass

To understand how the Mini-Gastric Bypass helps you to lose weight, you first have to understand how the normal gastrointestinal tract works.

Understanding Your GI Tract



Food enters the mouth where digestive enzymes in the saliva immediately begin the digestive process.

The food then flows down the esophagus into the stomach where stomach acids and the muscular motion of the stomach further digest the food.

The partially digested food then passes into the small intestine, entering first into the duodenum (the first portion of the small intestine) then into the jejunum (the second portion of the small intestine) and finally into the ileum (the third portion of the small intestine) before entering into the colon.

It is through the wall of the small intestine that the food we eat is absorbed. The duodenum is primarily responsible for our calcium and iron absorption as well as a number of other vitamins and minerals.

As the food passes through the small intestine, any nutrients not absorbed move into the colon (which acts primarily to reabsorb water) and eventually exits the body in the form of a bowel movement, thus completing normal bowel function.

The Mini-Gastric Bypass

You will lose weight after the Mini- Gastric bypass because of 3 important components.

First, the stomach is partitioned into a small pouch along the lesser curve of the stomach. This is called **the restrictive component** of the Mini-Gastric bypass procedure. Because the stomach is now physically much smaller, the volume of food one can consume is greatly reduced.

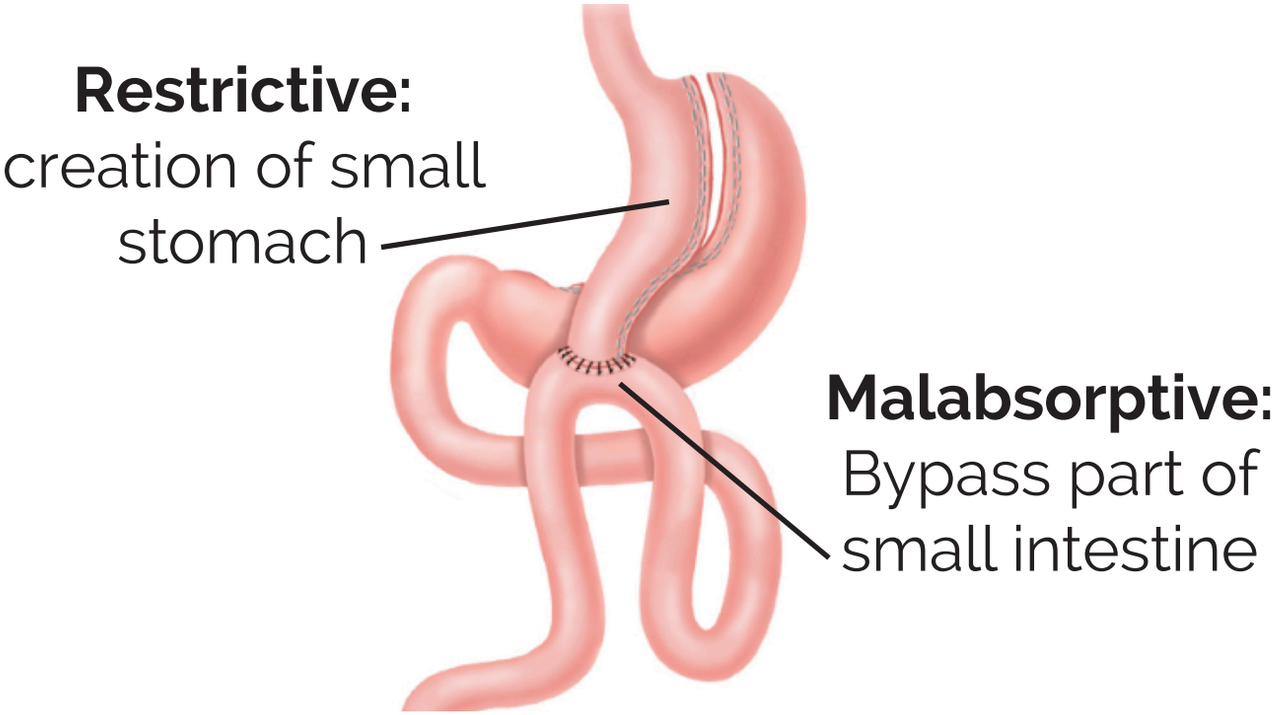
Secondly, there is the **malabsorptive component**. This involves bypassing a portion of the small intestine which thus reduces the amount of total calories and nutrients absorbed through the small intestine. Since you now absorb fewer calories, you will lose weight. Unfortunately, bypassing this first portion of the small intestine can also cause significant vitamin and mineral deficiencies which must be counteracted by taking a multivitamin with extra iron and calcium everyday for the rest of your life.

Besides the Restrictive and the Malabsorptive component of the Mini-Gastric bypass procedure, there is a third component involved with the mechanism of weight loss. This third component has to do with changes in hormone levels. One of the major hormones related to hunger and weight loss is a hormone known as ghrelin.

Ghrelin - The Hunger Hormone

Ghrelin is a hormone that is produced in the stomach and has an intense effect on the appetite center of the brain. Ghrelin stimulates the appetite center of your brain. Before weight loss surgery, levels of ghrelin rise as you lose weight. The more weight you lose, the higher your ghrelin levels climb. Eventually, your ghrelin levels reach a level that is too high for your willpower to resist. As a result of the high ghrelin levels you feel ravenously hungry. You give up on your diet and begin to gain weight again. As you gain more weight, your ghrelin levels drop back down to their baseline levels. This leads to the yoyo affect of dieting.

After surgery, ghrelin levels will drop significantly. Shortly after surgery you will find that not only are you unable to eat as much as you used to, you simply won't want to eat as much as you used to since you are no longer hungry!



Risks & Complications

Although Laparoscopic Gastric Bypass is relatively safe, it is a major operation and there are important and potentially lethal complications known to be associated with this as well as other types of weight loss surgery. Make sure to ask your surgeon for more detailed explanations if you have any questions about any of the risks listed here.

Short Term Complications (in the first 1 to 7 days)

The most common complications are usually minor and resolve within days or weeks.

- Bleeding from skin incisions - usually resolves in 1 to 3 days. Don't be alarmed if you have excessive blood tinged fluid draining from your wounds. If this should occur, simply inform your nurse and she/he will reinforce or change the dressing over the draining wound.
- Nausea and vomiting
- Diarrhea
- Wound hematoma or abscess

More serious complications, although rare, are also possible. These include:

- Leak
- Hemorrhage
- Deep Vein Thrombosis (Blood clots involving the lower extremities)
- Pneumonia
- Pulmonary embolus
- Heart Attack
- Death

Long Term Complications

- Vitamin and mineral deficiencies.
- Peripheral neuropathy (disorders resulting from injury to the peripheral nerves) has been reported after operation.
- Osteoporosis and bone loss.
- Abdominal wall hernia.
- Excessive weight loss and malnutrition
- Inadequate weight loss

Other Risks Include:

- Narrowing or stricture of the connection between the stomach and the small bowel resulting in gastric outlet obstruction.
- Ulceration at the connection between the stomach and the small intestine
- Bile Reflux Gastritis (occurs when bile flows back into the stomach.)
- Fistula formation, abscess formation, and infection have been seen in gastric bypass operations.
- Injury to the spleen at the time of surgery.
- Dumping Syndrome - (vasomotor and cardiovascular problems resulting in weakness, sweating, nausea, diarrhea and dizziness) occurs in some patients with bypass.
- Gallstones requiring postoperative laparoscopic cholecystectomy. To decrease this risk we prescribe Actigall for as long as you are losing 10 pounds a month or more.
- Adhesions, scar tissue caused by healing after surgery, are much less common after laparoscopy.
- Persistent diarrhea
- Thinning Hair - This is actually a fairly common problem after gastric bypass surgery. It usually occurs between the 3rd and 8th month after surgery. Adequate protein intake and zinc supplements can reduce the chance of excessive hair loss. This is usually a self limiting process.
- Pregnancy - Many studies show that obesity increases the risk for both mother and child. There are also potential complications of pregnancy after gastric bypass. Careful monitoring by your OB doctor is required during pregnancy after

Advantages Of The Mini-Gastric Bypass

Reversible And Revisable

A major advantage the MGB has over other types of weight loss surgery is the fact that it can be easily reversed or revised should the need ever arise. Revision surgery is done through the same 5 incisions using the laparoscopic approach, it is performed in about the same amount of time as the original surgery (sometimes less than an hour), and it usually involves only an overnight stay in the hospital.

Short Operating Time

Less time on the operating room table means less risk of complications such as blood clots in your legs and lungs and less risk of pneumonia. Short operating time allows you to be up out of bed and walking the hallways after surgery much sooner than after lengthy operations.

Overnight Hospital Stay

Short Recovery Time

Usually back to work within few days to 2 weeks.

Effective Weight Loss

Average weight loss of 65% Excess Body Weight in first year and sustained weight loss of 75% Excess Body Weight 4 years post-op.

No Foreign Material Left Inside

Foreign bodies like the Lap-Band can become dislodged or slip out of place. Some have even been reported to erode through the stomach lining. Unlike the LapBand, the MGB involves no foreign material in the body. (Except for the staples which are similar or identical to those used in all types of major abdominal surgery).

Appendix I

Periodic Lab

Recommended at 3 months and 6 months after your MGB Surgery.

- Comprehensive Metabolic Panel
- Complete Blood Count
- Iron
- Folate
- Vitamin B-12
- Lipid Panel
- HgA1c (Hemoglobin A1c) - if history of diabetes

Yearly Lab

- Comprehensive Metabolic Panel
- Complete Blood Count
- Iron
- Folate
- Vitamin B-12
- Lipid Panel
- HgA1c (Hemoglobin A1c) -if history of diabetes
- Vitamin A
- Vitamin D
- Vitamin E
- Vitamin B6
- PTH
- DHEA

It is recommended that your primary care physician order your lab tests rather than your weight loss surgeon to reduce your chances of having a significant out of pocket expense.

If you will be paying for the tests out of pocket, I recommend ordering your lab from MYMEDLAB.COM since they have given me a significant discount. You can log on to their website at www.mymedlab.com and search for BARIATRIC YEARLY or BARIATRIC PERIODIC lab. You will be directed to a collection site in your city and results can be faxed directly to my office and to your primary care physician.

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