

Congratulations on your decision to undergo Gastric Sleeve surgery!

You have made a very important, life changing decision and it is our job to provide you with the information and education that you need to make the most effective use of this very powerful tool.

This guide is designed to provide you with an understanding of Gastric Sleeve surgery and information on how to navigate through the process to achieve the health and weight loss you desire.

You must enter this process fully committed and with a solid understanding of the risks of surgery, the health and weight loss expectations and what we need of you as a patient in order to assist you in the most effective way possible. We are here to support you. The surgery is only the beginning and you must enter into it with the expectation that it's a life-commitment and a lifetime of follow-up and strict adherence to the program is essential.

Dr. Milton Owens

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Pre- Op Day

You will be expected to go through a pre-operative process, which will be scheduled for you before Sleeve surgery. It may be one day or as long as one week prior to surgery. You will talk about the procedure in detail with Dr. Owens. Dr. Owens may also want you to meet with other experts. They can help you understand what will happen during and after the operation. These experts might include a dietitian, physiotherapist, psychologist or other specialists. You will also need to have a number of tests before your surgery. These are to evaluate your health.

Pre Op Day events may include:

Exercise Education

You may meet with a physical therapist/personal trainer who will provide both a lecture and hands-on instruction in the hospital gym. You will be provided with the exercise and safety guidelines which will be important for your success.

Meeting with Dr. Owens

You will meet with Dr. Owens to go over all the details of your medical records one last time. This will also be your opportunity to ask any questions that you have regarding any aspect of your surgery or recovery. If you have lots of questions, you might find it helpful to make a list to bring with you. After your discussion you will undergo a full physical examination.

Meeting with an Internist

You may also have an appointment with an Internal Medicine doctor who may need to see you after surgery as well, to manage medical issues (diabetes, hypertension, etc) after surgery. He may also perform an EKG and brief physical exam.

Nursing education and registration

You will receive pre-operative education from our nursing staff on exactly what to do the day of surgery, where to go at what time, etc. You will receive very important instructions on how to deep breath after surgery, so you minimize your risk of complications. You will complete hospital registration information, which will also verify your insurance coverage. Please have all insurance cards with you.

X-Ray and Blood Draw

You will undergo a last set of lab testing on your blood, to ensure that you are not anemic and that you haven't caught an infection that would complicate your surgery.

Night Before Surgery

Do not eat or drink anything after midnight. Food in your stomach can be very dangerous if you throw up during surgery. So make sure your stomach is empty. That said, if Dr. Owens says it's ok to take a pill, just take it with a sip of water

Support

It's a good idea to ask a friend or family member to be at the hospital with you for comfort and support. This is an emotional time, and you'll want a friend or family, as well as support groups to help you through it. Be sure to arrange for someone to drive you home and stay with you. Don't even think about driving yourself. It's just not safe.

What to Expect the Day of Surgery

You must arrive a couple of hours before your scheduled operation in the hospital admitting area. If you would like to bring a family member with you to keep you company during this time, you may do so. During this time, you will be answering the same

questions from several different staff. Be patient, as this is for your safety- we check and double check all of our information with you so no mistakes are made. You will sign the operative consent, an IV will be started, antibiotics and blood thinners will be administered and you will put on your designer, one-of-a-kind, backless daywear. Actually it's a hospital gown.

You will then be transported to the Pre-Op Holding Area, right next to the Operating Room. You will meet your anesthesiologist and one of the nurses that will be in the room with you during your surgery. You may ask the anesthesiologist for a dose of anti-anxiety medication at this time if you like. We are very sensitive to the fact that this might be a scary time for many folks, so don't be shy about asking for this.

In the Operating Room

When the room is prepared for you, you will be taken, on a gurney, into the operating room. You might find that it is a little chilly, but we will bundle you up with blankets so you'll be quite warm. The nurse will place a safety belt across your body, and pads and pillows may be placed underneath your legs. Your arms will be extended out from your sides and softly padded.

The anesthesiologist will give you IV medications that will make you drowsy and you will inhale oxygen and anesthetic gases that will make you drift off to sleep. Once you are asleep, a tube will be placed through your mouth, into your trachea (windpipe) to deliver oxygen and anesthetic gases to your lungs. A combination of IV and inhaled gases will keep you safe and asleep for the surgery. The tube will be removed as soon as you awaken, so you will likely have no recollection of its having been there at all.

Gastric Sleeve Surgery

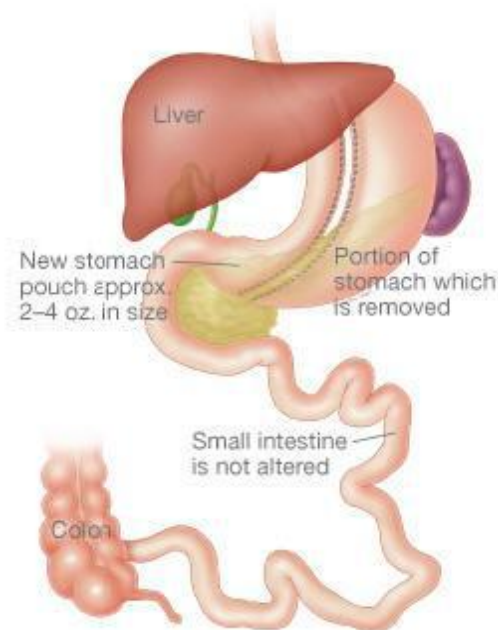
Approach

The abdomen is washed thoroughly with antiseptic solution and then sterile drapes are placed to cover the rest of the body. Cords, tubing, instrument stands and instruments are arranged for efficient use.

The operation may be performed by the laparoscopic technique (with tubes through 5 incisions, each $\frac{1}{4}$ to 1 inch long) or the open technique (one long vertical incision in the middle upper abdomen).

The Sleeve Surgery

The stomach is restricted by dividing it vertically, creating a small vertical stomach pouch shaped like a banana. The new stomach pouch measures 2-5 ounces. The remaining part of the stomach is removed. The stomach's main function is to act as a reservoir. By creating the small pouch, the reservoir capacity is greatly reduced



After Gastric Sleeve Surgery

Once the anesthesia has worn off, you may feel some pain. This pain can usually be relieved with ordinary painkillers. The hospital staff will help you get out of bed and start moving as soon as possible. This will help prevent blood clots, respiratory problems and bedsores.

In the Hospital

The First Day

You will spend approximately 1 ½ - 2 hours in the recovery room as you slowly wake up after surgery. You will be closely attended by your nurse, who will administer pain and nausea medicine as needed. Due to the amnestic nature of the medications that you get in the operating room, you will likely have little recollection of this period of time.

When you are fully awake, you will be taken to the regular nursing unit. You will still be quite groggy, so if family members wish to visit, it is advised that they wait another few hours. As soon as you are awake enough, the nurses will ensure that you use your incentive spirometer (the breathing machine to help you clear your lungs) and walk in the hall as soon as you are steady on your feet. **It is very important to follow the instructions of the nursing staff –walk and deep breathe as much and as often as you can –as this is an extremely critical time in your recovery!!** Keep the nurses apprised of your pain control so that they may alter medication dosages immediately if necessary. You will have an On-Q, which is a tiny pump that instills pain medication directly into the largest of the incisions, as well as a PCA, which is a button that you can push to give yourself a small dose of narcotic in the IV. You cannot overdose yourself as long as you are the only one pushing it. Do NOT allow family members to push the button for you while you sleep! You will remain without eating or drinking anything for the night. You

may, however, use wet swabs which are provided by the nurses, to refresh your mouth.

The Day after Surgery

If your kidneys have been working well throughout the night, the nurses will remove your urinary catheter and you will start taking ice chips by mouth, followed by sips of water, broth and sugar free jello. It is important to take small sips only, leaving plenty of time for the fluid to pass into your stomach before taking another sip. If you drink too much or too quickly, you may feel very nauseated and vomit. Just take a small sip every couple of minutes and you will get plenty of fluids in throughout the day. Once you are doing well with the drinking, we will unhook the IV and you will be able to take pain medicine by mouth. You may break the pills into small pieces and take them in fragments if you wish.

It is still imperative that you continue walking, coughing and deep breathing frequently and vigorously throughout the day. 10 breaths every 30 minutes, with the machine, is the rule for this day.

Second Day after Surgery

This is a marvelous day because you finally get to take a shower! The nurses will help you in the shower and afterward, they will remove the staples from your incisions. Steri-strips (butterfly bandages) will be applied to keep the skin closed together. Do not worry if the incisions tend to open slightly –they will heal well anyway, and will look just as nice in the end.

As long as you are walking, coughing, deep breathing and taking enough water, broth and jello by mouth, you will be discharged from the hospital –generally in the middle of the day. You will take your incentive spirometer home with you, as you must continue to use it every day. 10 breaths per hour is the rule, for the next week.

After Hospital Discharge

If you have not done so already, please take the time to carefully review all further information in this manual at the time of your discharge. It contains the information that will not only answer many of your questions, but it will guide you through the processes of initial healing, activity, eating patterns and general rules that you must follow to be successful with and recover safely from Gastric Sleeve Surgery . Remember that this section of the manual refers only to the period of time right after surgery.

Care of Your Incisions

Whether you had laparoscopic or open surgery, your incision care is the same. Simple cleansing in the shower, (do not soak in a tub) letting the soapy water run across the incisions is the best method. Simply pat them dry with a towel, without rubbing across the incisions. You may follow then apply dry gauze and tape (silk tape is the most adherent, paper tape is the least aggravating to skin) if any of the incisions are still draining clear yellow or clear pink fluid. You may also find that a gauze dressing will protect your lower incisions from getting irritated from the waistband on your pants. If your incisions are dry and healing nicely, there is no need for any dressing at all. Do not apply any ointments of any kind unless instructed to do so by your doctor. If you wish to apply ointments or cream, you must wait until the incision has completely healed and the scab has fallen off, in approximately 3-4 weeks.

Pain in the Incisions

It is common to have discomfort in your fresh incisions, particularly with activity, so you might find that the discomfort increases temporarily as you increase your activity level each day. After the laparoscopic surgery, the left lower incision will typically be the most troublesome, as it is the largest and it is the only one with large internal stitches in the muscle. Many people find that a heating pad works well for relieving the muscle

discomfort after a big day of walking. Many women have reported that wearing supportive undergarments provides ongoing relief as well.

Drains and Drainage

If you have a drain in place when you leave the hospital, you may shower as described above. Just be sure to secure the drain with strong tape before your shower so it doesn't get accidentally dislodged during showering.

"Normal" drainage is clear pink or clear yellow fluid. This may trickle out throughout the day or it may come out all at once, in a "gush", typically when you are getting up from a chair or bed, or out of a car, etc. This is normal and not to be worried about. If your drainage turns green, brown, murky or has a foul odor, contact your physician immediately. Note that the drainage coming from around JP or G-tubes frequently turns thick and yellow. This is normal and will cease after the tube is removed.

Infections

If your incisions develop redness that spreads out from the incision, or develop abnormal drainage (described above), you may have an infection and you should contact your physician immediately.

Swimming, Soaking and Submerging

You must wait until your scabs have all fallen off and all drainage is entirely gone before submerging your incisions in water. This will be approximately 4-6 weeks.

Scarring

All incisions will leave a scar. People all heal differently and cosmetic results vary tremendously. The most important consideration in obtaining best cosmetic result from a given scar

is to avoid exposing your scars to sun for at least 2 years. The best way is to place a band-aid over the area, but at the very least, use SPF 50 sunscreen. Your scars will mature over a period of 2 years and they will typically soften and fade over this period of time.

Diarrhea

It is normal to experience watery diarrhea for about a week after surgery. This should clear up within a day or two after starting solid food. If you experience cramping, bloody stools or diarrhea that lasts beyond a week contact the office immediately.

Eating and drinking after the operation

After your surgery you will start with a liquid diet and move slowly toward eating solid food again. Your stomach needs time to heal and you have to go easy on it. It is very important to follow the eating and drinking instructions right from the start after the operation. That's because you must allow the new stomach structure to heal completely. It may take a month or more for this to happen.

The first few days after the operation

Right after the operation you can take a little fluid. But you should take only a small amount at a time. The idea is not to become nauseated and vomit, since there is a high risk of stomach slippage right after surgery when vomiting occurs.

The first four weeks

Your first meals after surgery will consist mostly of liquid protein drinks carefully balanced to provide adequate vitamins and nutrients for proper surgical healing, while still permitting weight loss. It is unlikely that you will feel hungry; most patients must make an effort to drink the proper volume of liquid diet. In addition to the protein drinks, you may have diet drinks that have

gone flat, coffee or tea, V8 or tomato juice, diet Jello, bouillon cube soup and water. You need to be getting 500-700 calories per day so the protein drinks which provide calories are the most important.

Four-six weeks

Transitional Soft-Food Meals

Good foods to eat during this period include scrambled egg whites, oatmeal with nonfat milk, cream of wheat with nonfat milk, broth soups, tomato soup, split pea soup, baby food meats like chicken or turkey, pureed vegetables, nonfat cottage cheese, bananas, mashed potato (made with broth or nonfat milk), and unsweetened applesauce. The recommended daily intake of protein from your soft meals is 60-70 grams.

When not eating, drink plenty of water. As noted above, do not drink during a meal or within one hour after. The reason for this is that fluids taken during the meal will flush more food through, and keep you from feeling full and satisfied.

Your new Nutrition Plan

Dietary habits are hard to change, but the effects of surgery and the post-operative liquid diet make it easier to begin new habits. You will be scheduled to attend a nutrition class at the fourth post-operative week to help teach you the best nutrition following surgery.

When you can eat solid foods without problems, you will need to pay close attention to your diet. Liquids will pass through the reduced stomach pouch quickly and will not make you feel full. You should avoid high calorie drinks from this point on. Drink water, broth, tea and coffee (without sugar.)

Too much food or big chunks of food can block the stomach pouch outlet. You can avoid this problem by chewing food well and eating small bits at a time. You may eat three to five small

meals a day. Make sure that these meals contain adequate nutrients. Do not get into the habit of nibbling food between meals.

Regular Meals

Lean meats, vegetables, and fruits should become your dietary mainstays. Fats, concentrated sugars, and snacking are to be avoided. Meals are necessarily small and food should be well chewed.

Here are some additional food tips.

- Bake, broil, or BBQ meats - do not fry foods!!! Avoid foods that are greasy or fried.
- Read labels. Some foods are surprisingly high in sugar and fat; for example, baked beans, BBQ sauce, salad dressings, mayonnaise, butter and spaghetti sauce.
- Spice to taste. Salsa is a great taste to add to eggs, potatoes, salad, and chicken.
- Use nonfat dressings and spreads. Use Equal or Sweet & Low. Avoid sugar.

Lean Protein Sources

Remember to eat enough protein. Our bodies need the amino acids and other building nutrients found in protein foods. Protein builds and repairs muscle, and is an energy fuel. Patients should attempt to get at least 60 grams of protein a day.

- Turkey, chicken, or beef - purchase 97% lean meat
- Baked, broiled, or BBQd skinless chicken, white turkey meat, fish
- Ground Chopped chicken or turkey (white meat) for salads (use nonfat dressing)
- Lean deli meats (turkey, chicken)
- Water packed tuna (1/4 cup = 1 oz meat)

- Egg whites or egg substitute. (Yolk has all the cholesterol and fat, whites are pure protein)
- Nonfat yogurt
- Cereals: oatmeal or cream of wheat with nonfat milk
- Kidney beans, navy beans, lima beans, pinto beans
- Baked potato. (Top with salsa)
- Nonfat cottage cheese (great on a baked potato)
- Cereals (read labels for those high in protein and fat free or low fat).
- Brown rice
- Fish baked or broiled

Foods to AVOID

- Nuts of any kind
- Sunflower seeds
- Whole or lowfat milk, cream
- Butter, mayonnaise (substitute with nonfat)
- Potato chips
- All cheese
- Peanut butter
- Cream soups
- Trail mix
- Ice cream (Sorbet is okay)
- Sherbert
- Cookies, cakes, popcorn, pies
- Crackers
- Breads
- BBQ beans and sauce
- Granola
- Creamy sauces(Alfredo)
- Muffins, coffee cakes, donuts

Important Rules

1. Eat only three to five small meals a day. Do not eat between meals.
2. Always eat your protein first! Each meal should be at least 50% protein!
3. Eat slowly and chew thoroughly (approximately 15-20 times per bite)
4. Stop eating as soon as you feel full
5. Do not drink while you are eating
6. Avoid fibrous food
7. Exercise at least 30 minutes a day

Why the rules are important and how to make them work

Rule#1. Eat only 3 small meals a day. Your surgery created a stomach sleeve that can hold only about half a cup (3-4 ounces) of food. If you try to eat more than this at one time you may become nauseated. You may also vomit. If you routinely eat too much, the small stomach sleeve may stretch. That will cancel the effect of the operation. Frequent vomiting can also cause certain complications. You need to learn how much your stomach sleeve can hold comfortably and then not exceed this amount.

Rule#2. Always eat your protein first. Each meal should contain at least 50% protein. This is the most important part of your meal and since you don't have much room in your stomach, you must be sure to get enough in each meal. Additionally, protein is what gives us a sense of fullness and satisfaction, so it's important to put that into the system first.

Rule#3. Eat slowly and chew thoroughly. Food can pass through the new stoma only if it has been "chopped" into very small pieces. Always remember to take more time for your meals and chew your food very well.

Rule#4. Stop eating as soon as you are full. Once your stomach is full, your body receives a signal that you have eaten enough. It takes time though, for you to become aware of this signal. If you hurry your meal, you may eat more than you need. This can lead to nausea and vomiting. Take time over your meal. Try to recognize the feeling of fullness. Then stop eating at once.

Rule#5. Do not drink while you are eating. This operation can work only if you eat solid food. If you drink at mealtimes, the food you have eaten becomes liquid. Then the effectiveness of the surgery is greatly reduced. You should not drink anything for one to two hours after a meal.

Rule#6. Avoid Fibrous Food. Food such as asparagus that contains many fibers can block the stoma. That's because you can't chew this food well enough to break it down. If you'd like to eat asparagus or other fibrous foods once in a while, you must be sure to cook them well, cut them into very small pieces first and then chew thoroughly.

Rule#7. Exercise at least 30 minutes a day. This rule is very important! Since physical exercise consumes energy and burns calories, it is important to successful weight loss. Exercise helps improve your general health. Your size may make it hard for you to exercise as much as you should. But get started, even if it is a little at first. The more weight you lose, the easier it should get. Start with simple exercise such as walking. Gradually expand your program to include more vigorous forms of exercise such as cycling and strength training. Increase your activity level in the course of daily living. Stand rather than sit, walk rather than stand, walk rather than drive, climb the stairs rather than use the elevator.

Exercise

Establishing a routine for exercise is sometimes the most daunting element for our patients. Many people who have weight loss surgery have never felt comfortable exercising, due to pain, fatigue, self-consciousness, lack of positive results...but the fact is that now that you have had surgery, exercise is not only essential to protect your muscles from getting broken down, but it becomes a lot more fun! The pain in the joints disintegrates, energy skyrockets, the scale shows progress every week (our patients are the ones who see results faster than everyone else in the gym!) so self-confidence gets a real boost and suddenly people feel down and fatigued if they DON'T exercise.

It is important to combine aerobic type exercise (that is anything that gets your heart rate up to about 20 beats in 10 seconds) with resistance training (lifting weights)

Aerobic exercise burns more fat while you're doing the exercise, but resistance training increases your metabolism more overall, both while you are doing the aerobic part and for hours after you have stopped exercising. **In plain terms, lifting light weights in addition to your aerobic workout makes you burn more calories during your aerobic workout and it keeps your body burning calories long after you have stopped exercising.**

Those who have a balanced exercise routine tend to do better in the long run than those who do just aerobic workouts.

The patients who do the best and are happiest with their health and their bodies are those who get the help of a personal trainer. Getting a personal trainer, even on a temporary basis while you are losing weight, will provide an environment in which you can be safe and productive. Try it for just a few months and then see what you think!

Trainers who are physical therapists as well have an understanding of how to exercise around prior injuries and painful joints, while at the same time strengthening weak areas. They also have a keen ability to find the little muscles that we often neglect if left to our own devices, like the back (which sometimes starts to hurt after weight loss if it hasn't stayed in shape during weight loss) and the triceps (the area between the shoulder and elbow that sags down when you raise your arm).

Many patients have said that second to the surgery itself getting a personal trainer was the best thing they could have done with their money. Trainers make exercise safe, more effective and more fun, and they keep us accountable! Many trainers will even come to your home if you don't have a gym near your house. If cost is an issue, many at-home trainers will design a home program for you, check in with you by email, and visit you only once per month, adapting your programs for your needs and desired results as time goes by. This is much less expensive and is a better option for most people than going it alone. Exercise increases overall energy, reduces stress, improves sleep, fights hunger, and elevates mood.

Medications

The general rule is that you are cleared to take virtually all medications, but you must be careful of the size of the medication. Medications should be ground into a powder or small pieces.

Vitamin and Mineral Supplements

No specific deficiencies are attributable to the Sleeve. However, as a precaution, a Multivitamin should be taken daily.

Support Group Meetings

Information obtained through regular attendance at support group meetings will help you with post-operative adjustments. Patients who attend support group meetings on a regular basis seem to lose weight more successfully than those who do not. No better opportunity exists to discuss the surgical experience with other patients than at the support group meetings, and the multi-disciplinary educational format offers a variety of topics to guide you toward healthy lifestyle. Check our schedule with the hospital staff.

Keeping in Touch

Even years after surgery we would like to encourage you to schedule follow up visits every 6 months to 1 year. Patients who see their doctor regularly do better over time than those who do not. By maintaining contact we expect to be able to offer you the latest information in the treatment of obesity as well as counsel you in using your surgery to the greatest benefit. Information on how you are doing also helps us in the management of other patients.

When to call the office: 310-833-4448 or Dr. Owens: 310-279-6458

- Fever above 101.5 or shaking chill
- Swelling, redness or pain in one or both of your legs
- Sudden shortness of breath or chest pain
- Nausea or vomiting
- Severe pain in your belly
- Pain, swelling or fluid leaking from your cuts
- We are always available to answer questions, address your concerns, and provide additional information.