Important Contact Information

Surgeon

Peter F. Lalor, MD Medical Director The Center for Weight Loss Surgery 970 West Wooster Street, Suite 222 Bowling Green, OH 43402 Phone: 419.373.7699

Hospital

Wood County Hospital 950 West Wooster Street Bowling Green, OH 43402 Phone: 419.354.8900

Meet Your CWLS Team

Medical Director & Surgeon

Peter F. Lalor, M.D.

Certified Nurse Practitioner

Laura Carder, C.N.P.

Office Manager

Kristina Elling, CPC

Bariatric Office Nurses

Kate Gillespie, RN, BSN

Meghan Keil, MA

Bariatric Dieticians

Ginger Caris, R.D., L.D.

Leah Herbert, R.D., L.D.

Office Receptionist

Molly Lashaway

Bariatric Surgery Coordinator (CWLS)

Paula Mowery

Psychologists

Abby Braden, Ph.D.

Licensed Social Worker

Lynette Crow, LISW

Preparing for Surgery

Personal Preparation

Now that you have decided to proceed with surgery, there are certain steps to take before your operation to ensure that you are as prepared as possible for the procedure. Start taking multivitamins once daily to improve your general health. Further, take 500 mg of Calcium Citrate three times daily. Vitamin and mineral intake is especially important after bariatric surgery in order to maintain good nutrition and health. We have found that if you start taking these supplements before surgery, it will be easier remembering them after surgery.

Another important way to prepare for surgery is exercise. The best time to begin your exercise program is before your surgery. We're not kidding. The sooner you start exercising the easier it will be after you have surgery.

Success in gastric surgery is all about choosing the right habits, with the support of the surgery to improve your success. We want you to start moving more, but we don't want you to injure yourself. Walking on a daily basis improves your circulation and makes breathing easier during recovery. You will also benefit from having a plan in place, so you don't have to figure out your walking route during the confused recovery phase. A pedometer is a recommended purchase to keep you informed of your walking progress. Should you be unable to walk daily due to joint pain, then you may want to look into an aquatics program. Every town has classes for arthritic or cardiac patients that are held in a safe and clinical environment. Water exercises still condition your breathing, but are not weight bearing and are therefore easier for people who have joint problems. You can also practice the exercises that speed up your recovery.

Good skin integrity is essential for the operative site. It is important to maintain good hygiene, by keeping skin clean and dry, especially in the days before surgery. Skin breakdown could possibly cause your surgery to be delayed.

Medicines

It is important to avoid aspirin and all aspirin-containing medicines for at least 7 days prior to surgery. Herbal medications such as St. John's Wort, Gingko Biloba, Garlic, etc, should be discontinued, as these have blood- thinning properties. Other herbal supplements such as Kava and Valerian Root are known to interact with anesthesia and should also be stopped at least 10 days before surgery. Again, remember to tell your surgeon all the medicines and herbal supplements you are taking. Do not forget to check the label of your multivitamin; many times, they can contain herbal supplements as well. Remember to check all labels of over-the-counter medicines, since certain over-the-counter medicines can contain aspirin, too. If in doubt, please check with your pharmacist or your surgeon.

Alcohol and Tobacco

Since smoking hinders proper lung function, it can increase the possibility of anesthetic complications. Smoking can increase your risk of complications such as deep vein thrombosis (blood clots in the legs). Smoking also reduces circulation to the skin and impedes healing. Patients are required to stop smoking eight weeks before surgery. Smokers who undergo anesthesia are at increased risk for developing cardiopulmonary complications (pulmonary embolism, pneumonia and the collapsing of the tiny air sacs in the lungs) and infection. Besides the well-known risks to the heart and lungs, smoking stimulates stomach acid production, leading to possible ulcer formation. Patients must agree to permanently refrain from smoking after surgery. Ask your Primary Care Physician to write you a prescription for a smoking cessation aide, or call the Wellness Office at Wood County Hospital for smoking cessation information and classes, if necessary. Smoking after surgery is almost suicide; it will guarantee that you develop pouch irritation or an ulcer in your pouch which will manifest as chronic pain, nausea, and food intolerance. If the ulcer perforates your pouch, you will require emergency surgery and you can die. Smoking cessation is crucial to your success.

Alcohol also causes gastric irritation and can cause liver damage. During periods of rapid weight loss the liver becomes especially vulnerable to toxins such as alcohol. You may find that only a couple of sips of wine can give you unusually quick and strong effects of alcohol intolerance. In addition, alcoholic beverages are high in empty calories and may cause "dumping syndrome (only for Roux-en-Y patients)." For these reasons, we recommend complete abstinence from alcohol for one year after surgery and avoiding frequent consumption thereafter.

Work and Disability

Expected return to work time is about two to four weeks. This may vary greatly. The time you take off from work depends on many things. These include the kind of work you do, your general state of health, how badly your work needs you, how badly you need your work (i.e. the money), your general state of motivation, the surgical approach (laparoscopic versus open) and your energy level. It is important to remember that one is not just recovering from surgery, but one is eating very little and losing weight rapidly. You may have heard that someone went back to work full-time in just two weeks. We would, however, caution you not to rush back to full time work too quickly. The first few weeks are a precious time to get to know your new digestive system, rest, exercise and meet with other post- operative patients in support group meetings. If financially feasible, take this time to focus on your recovery.

Dr. Lalor would like you to take at least 2 weeks off and will approve you for 4 weeks off if you can afford to miss work.

Some patients do not wish to tell the people with whom they work what kind of surgery they are having. It is perfectly appropriate to tell as much or as little to your employer as you would like. Although you do not need to tell your employer that you are having weight loss surgery, it is recommended to reveal that you are having major abdominal surgery. Explain that you will need two or more weeks to recover, especially if you would like to have some form of financial compensation during your absence. Your employer should have the relevant forms for you to complete. You may want to indicate that you will not be able to do any heavy lifting for several months after surgery.

Bowel Preparation Before Surgery

The day before surgery, you may drink only clear liquids. Clear liquids include water, coffee, tea, apple juice, grape juice, cranberry juice, bouillon, broth, clear popsicles, and gelatin. Pre-operative diet instructions will be given to you at your pre-operative appointment. It is important that you follow these instructions completely. After midnight, you must take nothing by mouth except medicines that have been approved by the anesthesiologist and/or surgeon. Your stomach must be empty at the start of the procedure to avoid the risk of aspiration.

If You Are Ill Before Surgery

Should you develop a cold, persistent cough, fever, skin breakdown or any changes in your condition during the days before your surgery, please notify the surgeon immediately. You will need to be re-evaluated for surgical readiness. You need to be in the best possible shape for anesthesia. Scheduling can be adjusted to your condition if necessary.

Hospital Pre-Admitting Procedure

Before you can have your surgery, you will follow Wood County Hospital's policy on pre-admission testing and registration. Specific instructions will be given to you by your hospital or surgeon's office.

What to Bring to the Hospital

It is recommended to bring only the bare necessities to the hospital. Do not bring any jewelry or more than \$20 cash. Please refer to the "meds-to-beds" pamphlet for information about receiving your prescriptions before you are discharged. You will need to bring cash or credit card to pay for them. You may want to bring a picture of a family member, friend, or pet to help you relax.

There are a few other things that may make your stay a little more comfortable:

- This guide
- Small overnight bag with toiletries such as toothbrush and toothpaste, soap, shampoo and lotion
- Bathrobe
- Address and phone book of loved ones
- Lip balm
- Comfortable, loose-fitting clothes to go home. Clothes that are easily removed and easy to slip on are best
- Your CPAP machine if you have sleep apnea.

Your Surgery Day

Personal Preparation

We recommend that you shower in the morning on the day of surgery, but do not use any moisturizers, creams, lotions, or make-up. Remove your jewelry and do not wear nail polish. You may wear dentures, but you will need to remove them just prior to surgery. Please bring your eye glasses and a case if possible.

General Surgical Risks

It is important for you to understand fully the risks involved with surgery so that you can make an informed decision. Although surgical complications are infrequent, all surgeries have some degree of risk. Your surgical team will use their expertise and knowledge to avoid complications. If a problem does occur, your surgical team will use those same skills in an attempt to solve the problem quickly. The importance of having a highly qualified medical team and the use of a certified facility cannot be overestimated.

In general, the least serious problems occur more often and the more serious problems occur rarely. If a complication does arise, you, Dr. Lalor, and the nursing staff will need to cooperate in order to resolve the problem. Some complications can involve an extended hospital stay, extended recovery period or even more surgery. The key to complications is recognizing them in a timely fashion so they can be treated accordingly.

<u>Anesthesia</u>

When general anesthesia is used, you will be sound asleep and under the care of your anesthesiologist throughout the operation. Once you are settled on the operating table, you will be connected to several monitors and an intravenous (IV) catheter. A quick acting sedative will be given through the IV tubing after you have breathed pure oxygen for a few minutes. Once you fall asleep, your anesthesiologist will slip an endotracheal tube through your mouth into your windpipe to guarantee that your breathing is unimpeded. An anesthetic gas and other medications will keep you asleep and pain free.

Many patients have an instinctive fear of anesthesia. Extremely sensitive monitors used during surgery have greatly reduced the risks of anesthesia. A minute change in the oxygen level in your blood, in the amount of

carbon dioxide you breathe out, in the percentage of anesthetic gas being administered, in your heart rate, or in your blood pressure would be reported immediately. Most complications of anesthesia in the past have occurred because of "simple" problems that were not recognized quickly enough. The sophisticated monitoring system now used makes recognition and treatment of problems with anesthesia almost immediate. Your anesthesiologist will discuss the specific risks of general anesthesia with you before your surgery.

Hospital Admitting Procedures

Enter through the main hospital entrance and check in at the Surgical Services reception window. You should arrive 2 hours before your scheduled surgery time. If you are late, your surgery could potentially be postponed later in the day or rescheduled. Once registered, you will be escorted to the pre-operative area and prepared for surgery. You will be asked to change your clothing and put on a hospital gown and slippers. If you wear dentures, corrective lenses, or hearing aids you will be asked to remove them for safety reasons. Please bring your own container.

You may be asked to sign an operative consent form, even though you may already have done so at Dr. Lalor's office. Your signature indicates that the procedure has been explained to you, that you understand it, and that you have no further questions. Dr. Lalor will see you the morning of surgery to answer any last minute questions.

Your blood pressure, pulse, respiration, oxygen saturation, temperature, height, and weight will be measured. An intravenous (IV) line will be placed in your forearm. This allows fluids and/or medications into your blood stream. You may also be given some medicine to help you relax.

The Operating Room

Going to the Operating Room (OR) is not a normal experience for most of us. Your surgical team recognizes the natural anxiety with which most patients approach this step in the process to achieving their goals. We believe that a description of the surgery experience will help you prepare for it.

Specialists using the most modern equipment and techniques will attend to you. The team includes a board certified anesthesiologist, a trained surgical assistant and nurses that will assist your surgeon. A registered nurse is in charge of the OR.

The Operation

Once you enter the OR, the staff will do everything they can to make you feel secure. You will be transported on a gurney (a bed or stretcher on wheels). There, the nurses who will be assisting your surgeon will review your chart. Medicines that will make you drowsy will flow through the tubing into a vein in your forearm. At the same time, to ensure your safety, the anesthesiologist will connect you to monitoring devices.

After you are asleep, a small plastic nasogastric (NG) tube is placed thru your nose into your stomach and another tube called a urinary catheter (Foley) into your bladder. The surgical procedure will last about two to three hours, but the length of the operation is dependent upon the number of extra procedures necessary, if any, and the difficulty of finding working space within a very large abdomen. Seldom is the length of operating time related to the patient's immediate condition in the operating room, and may go five hours without undue side-effects or risks. Your surgical team will take excellent care of you! We will also keep your waiting family members updated on your progress. When your surgery has been completed and your dressings are in place, you will be moved to the Recovery Room.

The Recovery Room

You will be closely monitored, during this period. Recovery Room nurses will remain with you at all times. When your initial recovery is completed and all your vital signs are stable, you will be transported to your room.

Most patients have very little memory about their stay in the Recovery Room. Yet, it is common for patients to be drowsy and sometimes confused when they first wake up. You will come out of the OR without the NG tube in your nose. You will, however, still have the urinary catheter (Foley) in place. The urinary catheter will usually be removed on the second post-operative day. There will also be 2 JP bulb drains coming out of your incisions on the right side of your abdomen. These are thin tubes that help drain any remaining bloody fluid from your abdomen. Do not be alarmed if they look bloody. The nurse will also empty them periodically. They are usually removed prior to going home.

Your Hospital Stay

<u>Recovery</u>

The hospital stay for Sleeve Gastrectomy averages two to three days, longer for those with complications. When you return to your room after surgery, you will continue to be closely monitored by your nurses. The first few days after the operation are a critical time for your stomach and intestines to heal.

Along with periodic monitoring of your vital signs (blood pressure, pulse, temperature, respirations), your nurses will encourage and assist you in performing deep breathing, coughing, leg movement exercises, and getting out of bed after surgery. These activities prevent complications. Be certain to report any symptoms of nausea, anxiety, muscle spasms, increased pain or shortness of breath to your nurse. To varying degrees, it is normal to experience fatigue, nausea and vomiting, sleeplessness, surgical pain, weakness and lightheadedness, loss of appetite, gas pain, flatus, loose stools, and emotional ups and downs in the early days and weeks after surgery. You may discuss specific medical concerns with your surgeon.

With the help of your nurse or Physical Therapist, you should sit up, dangle your feet the first night of surgery, and stand at your bedside. Yes, it will hurt, but each time you get out of bed it will get easier. Each day you will notice your strength returning, with less and less pain. You will be asked to get out of bed and walk the first post-operative day. After that, you will be required to walk at least three times per day and to do your leg and breathing exercises hourly. Changing positions in bed, walking and prescribed exercise promotes circulation. Good blood flow discourages the formation of blood clots and enhances healing. The floor nurses will remind you to do so.

You may not feel well enough to go for a walk, yet it is very important that you try your best and do as much as possible. Getting up, walking and doing your post-operative exercises will speed up your recovery and minimize complications.

On the first day after surgery, you will also be brought down to the radiology department for an Upper GI study with oral contrast. You will be asked to drink small amounts of white contrast as x-rays are taken of your new sleeve stomach. This is a test looking for leaks and strictures. Once the results are cleared by the doctor, you will be allowed sips of water later in the day.

Exercises that Speed up Your Recovery

To enhance your recovery your nurse will instruct you in coughing and deep breathing, turning in bed and exercising your feet and legs. You will be shown how to use the "incentive spirometer" to help you expand your lungs. Coughing and deep breathing is important so that you will loosen any secretions that may be in your throat or lungs and to help prevent pneumonia. Deep breathing also increases circulation and promotes elimination of anesthesia.

The proper way to deep breathe and cough is to follow these steps:

- 1. Inhale as deeply as you can
- 2. Hold breath for two seconds
- 3. Exhale completely
- 4. Repeat the above steps three times
- 5. Inhale deeply

6. Cough. The cough should come from the abdomen, not from your throat. Hold your pillow on your abdomen for support

Exercising your feet and legs is important for promoting good circulation. The proper way to exercise your feet and legs is to follow these steps:

- 1. Push your toes of both feet towards the end of the bed (as in pressing down on a gas pedal).
- 2. Pull your toes toward the head of your bed, then relax.
- 3. Circle each ankle to the right, then to the left.
- 4. Repeat three times.

These exercises should be repeated at least once every hour after surgery, but it is also a good idea to practice these exercises before surgery to increase lung function and agility.

Pain Control

You may feel pain where the incision was made or from the position the body was in during surgery. Some patients can experience neck and shoulder pain after laparoscopy. Your comfort is very important to your medical team.

Although there will always be some discomfort after an operation, keeping your pain under control is necessary for your recovery. When you are comfortable, you are better able to take part in activities such as walking, deep breathing, and coughing. These activities are imperative in order to recover more quickly.

If you are feeling pain after surgery, you will be able to push a button on a cord to administer pain medication to yourself. This method of administration is called "patient-controlled analgesia" (PCA). As soon as you are able to tolerate fluids, your medical team will add oral pain medication.

Please remember that you will not be bothering the staff if you are asking for pain medicine! Your nurses and doctors will ask you to pick a way that you can describe your pain. This is done to ensure uniform language. A helpful way to describe pain is the number scale (0 to 10 scale: 0= no pain, 10=the worst pain possible) or you can use words (none, mild, moderate, severe).

No matter which form of pain control you receive, PCA or pill, here are some pointers to help you be more comfortable:

1. Tell your nurses and physician if you are having pain, particularly if it keeps you from moving, taking deep breaths, and generally feeling comfortable.

2. Everyone is different, so keeping your nurses informed about how you feel will help them help you.

3. Plan ahead for pain; if you are comfortable lying down, you may still need pain medication to get up and walk around.

4. Keep ahead of the pain. Don't wait for the pain to be at its worst before you push the PCA button or ask for pain medicine. Pain medication works best when used to prevent pain.

5. The risk of becoming addicted to pain medicine is very low when it is used for a specific medical purpose, such as surgery.

Diet at the Hospital (Phase I Diet)

At the hospital and once you are allowed to drink, you will be served clear liquids (Phase I diet) for the first few days in the hospital. These gentle fluids allow your new stomach to heal. If you are served something other than Phase I diet, do not eat it. The kitchen may have made a mistake. Call your floor nurse to have your meal changed. It is a very unlikely occurrence to have the wrong meal served, however, in light of your post-op status we thought that it would be worth mentioning.

Most likely, you will not feel hungry or very thirsty the first week or so after surgery. This is normal, however, it is very important to keep drinking water and light fluids to prevent dehydration. You will be discharged on a liquid protein diet (Phase II) to start at home. Do your best with all liquids so you can keep your strength and hydration up to promote healing.

<u>Going Home</u>

Your date of discharge will be determined by Dr. Lalor based on your individual progress. Prior to your discharge, specific dietary and activity instructions will be reviewed with you, along with precautions and situations when your surgeon should be notified. Discuss your going home concerns with your nurse or discharge coordinator.

Please give some thought to your living environment. Are there many steps in your home? Is your bedroom upstairs? How accessible is your bathroom? Please tell the hospital staff about your living environment so they can prepare your going home with your specific needs in mind. Nonetheless, a rubber showerhead with a hose, long sponge stick (or kitchen tongs) and toilet lift are all useful items.

<u>Home Again</u>

<u>Checking In</u>

We care about your progress. Keep in touch with us and Dr. Lalor. We will do our best to make sure that you are well taken care of. Your first office visit should be scheduled 2 weeks from the day of surgery, usually about 10 days from when you are discharged. Your postop appointment will be scheduled for your at your pre-op appointment. A nurse from Dr. Lalor's office will call you a day or two after you are discharged from the hospital to check in and make sure you are doing ok. You will be seen by your surgeon on a periodic basis after that. Generally, your surgeon likes to see you 2 weeks, 2 months, 6 months, 12 months post-operative, then annually thereafter.

Please call Dr. Lalor's office with any surgical concerns or questions between scheduled visits. Dr. Lalor can be reached at any time by calling the hospital and having him paged. The hospital number is 419-354-8900. Don't leave your Primary Care Physician out of the loop either – don't hesitate to contact him or her with medical concerns.

Specific Recovery Instructions

There are many things you will experience once you are home recovering. When you get home, plan on taking things easy for a while. Your body is still recovering from the stresses of major surgery and weight loss occurring during the recovery period. Your activity will be restricted to no strenuous activity for three to six weeks after the operation. You may walk and perform light household duties as tolerated upon your return home. Usually, frequent walks of short duration are tolerated better than one or two long walks that go to or

past the point of fatigue. Increase the distance that you walk gradually. By the time of your two month office visit you should be walking regularly two miles a day or more unless you have specific problems with your weight bearing joints. In the later case, water exercises are recommended. You can start water activities about three weeks after surgery. Patients undergoing the laparoscopic method are more frequently able to return to all activities within a shorter time frame. You may be tired, weak, nauseated or have vomiting the first few weeks after surgery. Keep up your fluid intake with small, frequent sips as necessary. *You should carry a water bottle with you at all times.* One and a half to two liters a day is the recommended minimum intake. Refer to the Diet section for specific dietary instructions.

Resume traveling short distances as soon as you feel strong enough to make the trip. Do not drive a motor vehicle until you are off the prescription pain medicines, usually about one week after your surgery.

The first several weeks after your surgery you may feel weak and tire easily after activity. However, try to be as active as possible. Plan to walk as much as you can tolerate without becoming too tired. Start with short walks, increasing the distance each day. The more physically active you are, the more recovery is enhanced and the more energy you'll have. Continue walking at least four times daily, so that you are walking 30 to 45 minutes by the sixth week. Find out more about starting an exercise program by reading about first steps and continue to do the exercises that speed up your recovery.

Avoid sitting and standing without moving for long periods. Change positions frequently while sitting, and walk around in lieu of standing still. These strategies will help prevent blood clots from forming in your legs. Avoid lifting anything heavier than 5 to 10 pounds, or do push or pull motions (i.e. vacuuming) during the first six weeks. Do not do any heavy work for the first three months. Climbing stairs is encouraged.

Remember that most patients will feel tired, less energetic, and sore for several weeks following either operative method as these are major operative procedures and you will be losing weight as well as healing wounds. You will have good days and bad days, so it is important to have the right expectations.

Personal Hygiene

Most patients like to have someone home with them the first few days after surgery for moral and physical support. Due to the nature of abdominal surgery, you may need some help with toileting. Flushable baby wipes tend to be gentler for personal hygiene, as well as a peri-bottle. You can use a small sports-top water bottle. A long sponge stick can be very helpful.

Wound Care

Your wounds need minimal care. If sutures were used, they dissolve, so there is no need to remove any stitches. You will notice some small tape strips on your wounds. This tape is called "Steri-Strips[®]." They will fall off on their own, or if they begin to peel off you can remove them after one week from surgery. If surgical staples were used, they will have to be removed, usually at your first post-op visit. The removal of the surgical staples is almost painless. It feels like minor pinching which is over quickly. Leaving the wound open to air, whenever possible, also helps prevent suture infection. The incisions where drains were removed may leak and spot for a few days. Keep these areas covered with a dry dressing or band aid to protect your clothes until they seal up.

No matter how your wound was closed, it is important to keep the wound clean and dry to promote faster healing. You may shower, but pat dry the incision area. After about three weeks, the incision is usually ready for immersion. Ask your surgeon for the official "go ahead" before you take a bath or go in the pool or lake. As you feel stronger you may enjoy a swim or a soak in the tub.

Despite the greatest care, any wound can become infected. If your wound becomes reddened, swollen, leaks pus or has red streaks, has yellow/green, purulent and/or odorous drainage, feels increasingly sore or

you have a fever above 100.5°F, you must report to your surgeon right away. Please do not use any antibiotic ointment or other occlusive ointment on your incision. Learn more about medical care in the next chapter.

The bottom line – (unless otherwise prescribed) shower, wash with soap, rinse and dry thoroughly. If wound is oozing or catching on clothing you may cover with a very light dressing, otherwise leave open to air.

MEDICAL CONCERNS

Urgent Symptoms

Even though we do not expect you to have any serious problems, some symptoms that you may experience need to be addressed immediately. If you experience any of these symptoms, contact your surgeon right away:

- 1. Fever (100.5°F or above)
- 2. Redness, swelling, increased pain and/or pus-like drainage from your wound
- 3. Chest pain and/or shortness of breath
- 4. Nausea and/or vomiting that last more than 12 hours
- 5. Pain, redness, and/or swelling in your legs
- 6. Urine output less than four times and very dark in 24 hours
- 7. Pain that is unrelieved by pain medication

Normal Symptoms

- 1. Swelling and bruising moderate swelling and bruising are normal after any surgery.
- 2. Severe swelling and bruising may indicate bleeding or possible infection.

3. Discomfort and pain – mild to moderate discomfort or pain is normal after any surgery. If the pain becomes severe and is not relieved by pain medication, please contact your surgeon.

4. Numbness – small sensory nerves to the skin surface are occasionally cut when the incision is made or interrupted by undermining of the skin during surgery. The sensation in those areas gradually returns – usually within two to three months as the nerve endings heal spontaneously. Be especially careful not to burn yourself when applying heating pads to the area that may have some post-operative numbness.

5. Itching – itching and occasional small shooting electrical sensations within the skin frequently occur as the nerve endings heal. These symptoms are common during the recovery period. Ice, skin moisturizers, vitamin E oil and massage are often helpful.

6. Redness of scars – all new scars are red, dark pink or purple. The scars take about a year to fade. We recommend that you protect your scars from the sun for a year after your surgery. Even through a bathing suit, a good deal of sun light can reach the skin and cause damage. Wear a sunscreen with a skin-protection factor (SPF) of at least 30 when out in sunny weather.

Home Pharmacy Supplies

- Gauze pads
- Bandage tape
- Cotton balls
- Hydrogen Peroxide
- Thermometer
- Heating pad
- Acetaminophen

<u>Nausea</u>

Nausea may be related to insufficient chewing, fullness, sensitivity to odors, pain medication, not eating, post-nasal drip and/or dehydration. For nausea that occurs in the first days after surgery, this is normal. In unusual cases, the nausea can be so severe that it prevents patients from taking in adequate amounts of liquids. If this happens you need to come back to the hospital to receive intravenous fluids. Dr. Lalor may prescribe anti-emetic medicines if the nausea is severe. Persistent vomiting can lead to dehydration and electrolyte imbalance, and can cause vitamin deficiencies to occur.

Odors can sometimes be overwhelming after surgery. Many former patients found that putting a few drops of peppermint essential oil on a handkerchief can be very helpful if you are dry heaving. Avoid perfumes and scented lotions. If food odors bother you, try to have someone else prepare your meals or prepare bland foods. Learn to recognize when you are full. This will not happen immediately, but by eating very slowly, it will become easier.

Should you have difficulty drinking due to nausea, you may want to try peppermint tea, fennel tea, decaffeinated green tea or water with lemon (hot or cold). Sucking on a cinnamon stick can help alleviate nausea.

If you believe that your pain medication is the cause of your nausea, please call your surgeon's office to have the prescription changed.

Stay hydrated – fluids should be continuously sipped all day long to prevent dehydration. You need a minimum of 1½ to 2 Liters of fluids per day. Increase this amount by 20% if you are sweating.

Take your nausea medicine if prescribed by your surgeon.

Vomiting

Vomiting is often times associated with eating inappropriately. It's very difficult to gauge in the beginning how little food will satisfy your hunger. Chew your food well, keep it moist and eat only half of what you anticipate eating. If there is still space, and you still feel hungry, then you can always eat more. Chances are that you are going to feel full with very little. A couple of teaspoons may be all that you can take in at one time.

If you overeat after surgery, you may vomit. Sometimes fullness occurs quickly. Allow yourself time to recognize the feeling of fullness. Typically, with a Sleeve Gastrectomy a profound feeling of satisfaction follows the fullness within a few minutes, and makes further eating a matter of indifference.

These may cause vomiting:

- Eating too fast
- Not chewing food properly
- Eating food that is too dry
- Eating too much food at once

- Eating solid foods too soon after surgery
- Drinking liquids either with meals or right after meals
- Drinking with a straw
- Lying down after a meal
- Eating foods that do not agree with you

If you begin vomiting that continues throughout the day, stop eating solid foods and sip clear liquids (clear and very diluted juice, broth and herbal tea). Should you have difficulty swallowing foods or keeping foods down, please call your surgeon. Vomiting may indicate that the stomach pouch is blocked. **If vomiting continues for more that 24 hours, contact Dr. Lalor,** since vomiting can lead to severe dehydration, a situation that needs to be taken seriously.

Dehydration

Dehydration will occur if you do not drink enough fluids. Symptoms include fatigue, dark colored urine, dizziness, fainting, nausea, low back pain (a constant dull ache across the back), and a whitish coating on the tongue. Blood work should be done if these symptoms persist, in order to establish the severity of dehydration. Dehydration may lead to bladder and kidney infections. Contact your surgeon if you believe that you may be dehydrated. In some cases, you need to be admitted to the hospital so that fluids can be administered.

Note: If your urine is dark and your mouth is dry, you are not drinking enough.

This is what you can do in order to prevent dehydration:

- The Center for Weight Loss Surgery will provide a calibrated water bottle. Take it with you everywhere so you can sip water all day.
- Try to drink at least 1 ½ to 2 Liters of fluids per day. Increase this amount if you are sweating
- Avoid beverages containing caffeine they are diuretic and can dehydrate you. Unsweetened herbal iced tea is okay to use.
- If you have difficulties drinking due to nausea, suck on ice chips or sugar free popsicles.

Bowel Habits

It is normal for you to have one to three bowel movements of soft stool per day. It may be foul smelling and associated with flatulence. Most of these changes resolve as your body heals and you adapt to changes. Please call your surgeon, should you have persistent diarrhea.

After restrictive surgery, the amount of food consumed is greatly reduced, and the quantity of fiber or roughage consumed may be much smaller. Correspondingly, the amount of bowel movements will be diminished, causing less frequent bowel activity, and sometimes constipation. If this becomes a problem, a stool softener may be indicated to avoid rectal difficulties. As long as you are passing flatus, everything is usually OK.

Keeping your bowel movement regular:

- Remember that your stools will be soft until you eat more solid food.
- Lactose intolerance and high fat intake are generally the culprits of loose stool and diarrhea. Avoid all high fat foods and discontinue the use of all cow milk products. Yogurt is okay.
- Keep a Journal to help recognize problem foods.
- If cramping and loose stools (more than three per day) or constipation persist for more than two days, please call your surgeon's office.

<u>Flatulence</u>

Everyone has gas in the digestive tract. Bariatric patients have a shortened bowel, thus causing gas to be more odorous and expelled more forcefully. Gas comes from two main sources: swallowed air and normal breakdown of certain foods by harmless bacteria that is naturally present in the large intestines. Many carbohydrate foods cause gas; fat and protein very little. The foods that are known to cause more gas are beans, veggies, some fruits, soft drinks, whole grains/wheat and bran, cows' milk and cows' milk products, foods containing sorbitol and dietetic products.

Here are some helpful hints:

- Eat your meals more slowly, chewing food thoroughly.
- Lactose intolerance is generally the culprit of gas, too. Discontinue the use of all cow milk products.
- Yogurt is okay.
- Avoid eating chewing gum and hard candy.
- Avoid drinking with a straw.
- Eliminate carbonated beverages.
- Remedies include Lactobacillus acidophillus, natural chlorophyll, and simethicone.

<u>Hernia</u>

You may notice a bulge under the skin of your abdomen. What you are noticing are the bowels that are not being contained in the abdomen due to a weakness in the abdominal wall at the site of the incision. You may feel pain when you lift a heavy object, cough, or strain during urination or during bowel movements. The pain may be sharp and immediate. In some cases the pain may be a dull ache that gets worse toward the end of the day or after standing for a long period of time. Minimize the risk of developing a hernia by avoiding heavy lifting for three

months after surgery. If you notice that you may have a hernia, please call your surgeon for a consultation. Surgery is the only way to fix a hernia. If the hernia comes out and will not go back in when you lie down and is associated with severe pain and vomiting, it can result in an emergency. Call your surgeon's office or your primary care physician on an emergency basis.

Thrush/Yeast Infections

You may notice that after surgery you may have a white, cottage cheese-like coating on your tongue. The tongue could also be very red and inflamed. Most likely you have thrush – a yeast overgrowth in your mouth. Oftentimes this is due to large amounts of antibiotics peri-operatively. Call your primary care physician if you should have an oral infection or a rash on your skin. You can reduce this problem by taking Lactobacillus acidophilus in addition to the prescribed regimen post-operatively.

Vaginal yeast infections are caused by yeast called Candida albicans. Yeast are tiny organisms that normally live in small numbers on the skin and inside the vagina. The acidic environment of the vagina helps keep yeast from growing. If the vagina becomes less acidic, too many yeast can grow and cause a vaginal infection. Yeast infections can be very uncomfortable, but are usually not serious. Symptoms include itching and burning of the vagina and around the outside of the vagina (vulva), a white vaginal discharge that may look like cottage cheese, and swelling. Yeast infections are so common that most women will have one some time in their lives. Half of all women have more than one yeast infection in their lives. If you have symptoms of a yeast infection call your primary care physician or your gynecologist. You can help prevent yeast infections by not wearing tight-fitting or synthetic clothing, wearing cotton underwear, not wearing pantyhose every day and not douching or using feminine hygiene sprays. You can also take Lactobacillus acidophilus in addition to the prescribed regimen post-operatively.

<u>Anemia</u>

It is recommended that all gastric bypass patients take an iron supplement in order to prevent anemia. This is not necessary after the sleeve gastrectomy unless you have a previous deficiency. The nutritionist will recommend which iron supplement is best for you if needed. Signs of iron deficiency anemia include pallor, decreased work performance, weakness, difficulty maintaining body temperature, fatigue, dizziness, and shortness of breath. Iron deficiency may also be caused by low vitamin C. Vitamin C helps to mobilize iron from its storage sites, so a deficiency of vitamin C limits the body's ability to use stored iron. This results in an "apparent" iron deficiency because hemoglobin levels are low, even though the body can maintain an adequate amount of stored iron.

Transient Hair Loss/Skin Changes

Hair thinning or loss is expected after rapid weight loss. It is temporary. Unfortunately, that does not make it any less disheartening. During the phase of rapid weight loss, calorie intake is much less than the body needs, and protein intake is marginal. The body is in a state of starvation. One of the side-effects is hair thinning or hair loss. This is a transient effect and resolves when nutrition and weight stabilize. The hair loss usually occurs anywhere from 3 to 9 months after surgery. For the same reason, skin texture and appearance may change. It is not uncommon for patients to develop acne or dry skin after surgery. Protein, vitamins and water intake are also important for healthy skin. You can minimize the loss of hair by taking your multivitamins daily and making sure that you consume at least 75 grams of protein per day. Nioxin shampoo has been shown helpful for some patients, as well as biotin tablet or powder. We advise patients to avoid hair treatments and permanents – no need to stress your hair from the outside, too.

<u>Scars</u>

Scars are expected after any surgery. The size of the scars depend on the type of procedure (open versus laparoscopic), the sutures used and how your body heals. Scars are a fact of life. But there is a way to make them less visible, should this be a concern of yours. Once your incision is fully healed, you may start using silicone pads and scar minimizing creams to make the scars look softer, smoother, flatter, and closer to your skin's natural color. Keep your scars out of the sun light to help them heal properly.

Sexuality/Pregnancy

You may resume sexual activity when you feel physically and emotionally stable. Women need to use a mechanical form of birth control, as fertility may be increased with weight loss and oral contraceptive may not be fully absorbed. Many severely obese women are also infertile, because the fatty tissue soaks up the normal hormones and makes some of its own as well. This completely confuses the ovaries and uterus, and causes a lack of ovulation. However, as weight loss occurs, this situation may change quickly. This happens often enough for us to give special warning. You may start planning a pregnancy after weight loss stabilizes. It is imperative not to become pregnant during the first 18 months, since we want both you and the baby to be healthy and safe.

If you become pregnant, along with extra servings of protein, vitamins and blood tests, we ask that you arrange for your OB/GYN to contact Dr. Lalor's office. They will be able to discuss specific information about your surgery, so the specialists can combine their efforts.

Long-term Complications

Late complications with weight loss operations have been gratifyingly low. The most frequent late complication is weight gain largely due to patient non-compliance or failure to lose enough weight with a need for a second stage operation. These are inherit risks of sleeve gastrectomy. Because of its investigational nature, we do not know of patients regain weight in the long term. Up to 5 years at least, this

is not the case. Patients that are compliant with diet and exercise in the long term have been shown to keep the weight off.

The development of gallstones is related to the rapid and significant amount of weight loss and therefore is highest in the first six months after surgery. Gallstones are not a complication of surgery as such, but rather a complication of rapid weight loss. Obese people have a very high rate of gallstone formation compared to normal weight people, mainly because of the many diet/weight loss episodes that obese people undergo. By age 50, nearly 50% of morbidly obese women have developed gallstones.

Bowel obstruction due to a blockage from adhesions (scar tissue) can occur as it can after any abdominal operation, trauma, or intra-abdominal infection. Because the sleeve operation only involved your stomach, bowel obstruction and adhesions after sleeve gastrectomy are rare.

Gastric ulcer is an acid-peptic ulcer that occurs in the stomach. There is a higher risk of developing ulcers after bariatric surgery. Patients who use non-steroid anti-inflammatory drugs (NSAID) such as ibuprofen, Aleve®, etc. and smokers have an even higher incidence of ulcers. It usually can be treated with the same kind of drugs that are currently so popular for the treatment of duodenal and stomach ulcers. Only rarely is surgery required as treatment, but ulcers can be life threatening. Smoking after surgery will almost guarantee you will develop an ulcer or some sort of complication!

Stricture, or too tight narrowing of the sleeve stomach, is a complication that can occur in sleeve gastrectomy patients. This may require outpatient endoscopy to gently stretch or dilate the sleeve so food and liquids may pass easier.

Iron deficiency anemia is a complication of significance in the long-term. It usually occurs in menstruating women who do not take extra iron supplements. It is almost always preventable. It is not difficult to treat, but must be recognized in order for it to be treated. This is one of the important reasons for long-term follow-up. Read more about the needed supplements in the diet guidelines.

<u>Diet</u>

Nutritional Expectations

After weight loss surgery you will need to make changes to your eating patterns. The diet after surgery progresses from a liquid diet to a pureed diet or soft diet and then a modified regular diet. The diet progression is designed to allow your body to heal. Initially, it will help you meet your protein and liquid requirements, and later, to assist you in meeting your nutritional needs. It is imperative that you follow the diet's progression and adhere to this regimen to maximize healing and minimize the risk for unnecessary complications. The size of your new sleeve stomach is about two to three ounces or the size of 14 of a can of pop. At first, your capacity will be somewhat limited, so be patient. You may find that two to three teaspoons of food fill you up. This is expected. You may also find that you are able to eat more of one type of food than another. That is okay, too. Over time, your sleeve will stretch a little. By six months after surgery, it may stretch to eight ounces or one cup. Long-term, the size of your sleeve is likely to be eight to twelve ounces or one and a half cups. This will limit the amount of food you can eat at one time. Most importantly, eating the right foods will prevent weight regain in the long term. One of the changes that patients often comment about is the concept of "wasting food". After surgery your eyes and head still work the same way as they did before. However, because of the new stomach pouch, you will be satisfied with much less. It is critical that you listen to your body's signals of fullness and not to your eyes that see food left on your plate. Do not eat until you are full; stop eating just before you feel full.

You may also be surprised at how the surgery changes your wants and desires for certain foods. Foods you may have previously loved you may now find you are less interested in.

It is common to see some variation from program to program related to nutrition. Just as there are many food options, there are many options and preferences post-operatively. However, most programs agree that the primary source of nutrition should be protein. 70 to 75% of all calories consumed should be protein based (eggs, fish, meat, etc). Carbohydrates (bread, potatoes, etc.) should make up only 10 to 20%, and fats (butter, cheese, etc.) only 5 to 15% of the calories that you eat. A diet consisting of 600 to 800 calories and 75 grams of protein should be the goal for the first six months. Protein drinks can be helpful to fulfill your protein requirements. There are many to choose from. Look for protein drinks that are low calorie and low sugar and that have a good taste.

Avoid foods which contain sugar. Not only will they slow down your weight loss, but they can make you sick! Sugar may cause "dumping syndrome" in patients who have had the gastric bypass procedure, but sleeve patients do not get this side effect, and you will not either. Dumping, in short, is when sugars go directly from the gastric bypass pouch into the small intestine causing heart palpitations, nausea, abdominal pain, and diarrhea. Symptoms may very among patients. Dumping lasts about 30 minutes to an hour.

To maintain a healthy weight and to prevent weight gain, you must develop and keep healthy eating habits. You will need to be aware of the volume of food that you can tolerate at one time and make healthy food choices to ensure maximum nutrition in minimum volume. A remarkable effect of Bariatric surgery is the progressive change in attitudes towards eating. Patients begin to eat to live – they no longer live to eat. As well, exercise must be part of your daily routine.

Dumping Syndrome:

THIS SECTION ONLY APPLIES TO PATIENTS WHO HAVE THE GASTRIC BYPASS

Under normal physiologic conditions, the stomach and pylorus (the opening of the stomach into the small intestine) control the rate at which the gastric contents leave the stomach. That is, the stomach, pancreas, and liver work together to prepare nutrients (or sugar) before they reach the small intestine for absorption. The stomach serves as a reservoir that releases food downstream only at a controlled rate, avoiding sudden large influxes of sugar. The released food is also mixed with stomach acid, bile, and pancreatic juice to control the chemical makeup of the food that goes downstream and avoid the "dumping syndrome."

Dumping syndrome is usually divided into early and late phases. The two phases have separate physiologic causes and will be described separately. A patient may likely experience a combination of these events and there is no clear-cut division between them.

The Roux en-Y gastric bypass bypasses the stomach that is not being used (hence the name) and a new, small pouch that directly connects to the small intestine is created, Rapid gastric emptying, or early dumping syndrome, happens when the lower end of the small intestine (jejunum) fills too quickly with undigested food from the stomach. After the Roux en-Y gastric bypass, patients can develop abdominal bloating, pain, vomiting, and vasomotor symptoms (flushing, sweating, rapid heart rate, light headedness). Finally, some patients have diarrhea. Early dumping syndrome is due to the now rapid gastric emptying causing bowel distension plus movement of fluid from the blood to the intestine to dilute the intestinal contents. These symptoms usually occur 30 to 60 minutes after eating and are called the early dumping syndrome.

Late dumping has to do with the blood sugar level. The small bowel is very effective in absorbing sugar, so that the rapid absorption of a relatively small amount of sugar can cause the glucose level in the blood to rise rapidly. The pancreas responds to this glucose challenge by increasing the insulin output. Unfortunately, the sugar that started the whole cycle was such a small amount that it does not sustain the increase in blood glucose, which tends to fall back down at about the time the insulin surge really gets going. These factors combine to produce hypoglycemia (low blood sugar) which causes the individual to feel weak, sleepy and profoundly fatigued.

Obviously, surgeons consider dumping syndrome to be a beneficial effect of Roux en-Y gastric bypass surgery. It provides a quick and reliable negative feedback for intake in the "wrong" foods. In practice, most patients do not experience full-blown symptoms of dumping more than once or twice. Warning: Late dumping is the mechanism by which sugar intake can create low blood sugar, and it is also a way for patients to get into a vicious cycle of eating. If the patient consumes food with a high sugar content, they will experience some degree of hypoglycemia in the hour or two after eating. The hypoglycemia can stimulate the appetite thus causing a patient to eat again to try to raise their blood sugar.

Lactose Intolerance

Lactose intolerance is a set of symptoms resulting from the body's inability to digest the cow milk sugar called lactose. Bariatric Surgery can unmask lactose intolerance, but not cause it. Lactose is commonly found in dairy based foods and beverages, and is digested in the intestines by the enzyme lactase. Lactase breaks down lactose so it can be absorbed in the blood stream. When the body does not produce enough lactase, lactose cannot be digested which may result in lactose intolerance.

Between 30 and 50 million Americans suffer from Lactose intolerance. In fact, 75 percent of all adults worldwide do not produce adequate amounts of lactase enzyme, and therefore may experience some or all the symptoms of lactose intolerance. Depending on the individual, the symptoms may vary, including cramping, diarrhea, bloating, gas and nausea. If you experience these symptoms after eating dairy products, you may be lactose intolerant.

Products that contain large amounts of lactose are cow's milk and ice cream; smaller amounts of lactose are found in yogurt, cottage cheese and hard cheese. Prepared foods can also contain lactose, so look on food labels for whey, lactose, non-fat milk solids, buttermilk, malted milk, margarine and sweet or sour cream. Some breads, dry cereal and instant soups contain small amounts of lactose. Although there are supplements that you can take, elimination of dairy is the best approach to solving the problems associated with lactose intolerance. Another approach is to switch to soy or lactose-free milk products that many patients are able to tolerate.

Eating Techniques

Your new motto: "slow, small, moist and easy."

Especially in the first eight weeks after surgery, you need to change your eating habits to avoid pain and vomiting, rupture of staple lines and to aid in weight loss. At this time, the tissue around the staples and sutures in the stomach pouch is very swollen and needs to heal. You also want to prevent obstruction of the area where your stomach pouch connects to your intestines (stoma or hook up).

Swallowing food in chunks may block the stoma and prevent foods from passing into the intestine. It is CRITICAL that you eat slowly and chew your food well to lower the risk of getting anything caught in this area.

You may find the following tips helpful:

- Set aside 30 to 45 minutes to eat each meal. Aim to chew your food 30 times with each bite. Ground or soft foods may be necessary if you have dentures. Slow down we have a lifelong habit of eating too fast. Slow down, enjoy the food and relax.
- Explain to friends and family why you must eat slowly so they do not urge you to eat faster.
- Take small bites of food and, for a visual aid, you may want to use a saucer in place of a plate to help with portion control.
- Pay attention to taste; learn how to savor your food.

- Eat 5-6 protein feedings per day. Snacking or "grazing" on small amounts of other food throughout the day will sabotage your weight loss and result in the inability to lose an adequate amount of weight.
- Never drink liquids when eating solid foods. Liquids should be avoided for a period of 30 minutes before and 30 minutes after eating solid food or meals. Combining liquids and solids may cause nausea, as well as push foods through the stomach pouch faster, enabling you to eat more.
- Stop eating before you are full (over-eating even one ounce can make you vomit and can lead to stretching your pouch). Listen to your body's signals, not the food left on your plate.
- Only eat the best of foods after all, if you are going to eat so little, shouldn't you have the best?

Recognizing Fullness

It is often difficult to understand the meaning of new sensations. Indications of fullness may not feel the same as

before surgery. Here are some that are not as obvious, but a sure sign that your pouch is nearly full:

- A feeling of pressure or fullness in the center of your abdomen, just below your rib cage.
- A feeling of nausea, regurgitation or heartburn.

You may have a feeling of satiety several minutes after you are actually full. If your pouch is 30 cc (one ounce), you can put 30 cc in it, and you will not feel full for about 5 minutes.

Try this to help you find out the right portion size: Measure 30cc of water, drink it, and wait for a few minutes. If you feel full with this amount and are comfortable, measure this amount of food before you eat it. This will prevent stretching of the pouch and the misery caused from over-eating.

Foods That May Be Difficult to tolerate

- Bread products
- Cow milk products
- Pasta products
- Fatty foods and fried foods
- Candy, chocolate, any sugary foods and beverages
- Carbonated beverages
- Bran cereal and other bran products
- Corn, whole beans, and peas
- Dried fruits and skins of fresh fruit
- Coconut

Diet Progression for the First Few Days Post Surgery

Post op Day 1

An upper GI study will be done to rule out a leak and/or obstruction. Based on these results, the surgeon will then likely order NPO, sips of water only, 1 ounces every 30 minutes. The nursing staff will then provide 1ounce medicine cups along with the fluid tracking sheet for you to document your sips.

<u>Phase I Diet</u>

This diet consists of clear, sugar-free fluids that can usually be started the second day after surgery, as ordered by the surgeon. The purpose of this diet is to allow your new stomach pouch time to heal properly and begin hydrating your body. Drink 1 ounce of fluid every 15 minutes (while awake) to ensure hydration. You will be provided 1oz medicine cups along with the tracking sheet by the hospital as a guide to meeting your needs. After being discharged from the hospital, continue to track your fluid intake.

Note: Adhere to recommended behavior guidelines; call the nurse at the surgeon's office if behavior modifications fail and if experiencing ongoing nausea, vomiting or abdominal pain.

Phase I Diet(First Few Post-op Days)- Clear liquids that are well tolerated are:

- Sugar free, con-carbonated beverages
- Clear beef, chicken, or turkey broth
- Sugar free popsicles
- Sugar free Jell-O
- Decaffeinated beverages
- Water

AVOID: Caffeinated, carbonated, and alcoholic beverages

Diet Progression for the first 2 weeks post surgery

Phase II Diet – Full Liquids

At this point, your dietary choices start to expand somewhat. It is still very important to adhere to the guidelines, as your new stomach is still healing and you are adjusting to a new way of eating. This diet consists of low-sugar foods that are liquid or semi-liquid at body temperature such as hot cereals and low-lactose products. You should limit your intake to liquids, and very soft foods. This diet permits a gradual transition to more solid foods. Again, only eat until you start feeling full. Remain on this diet until your surgeon allows you to advance to the Phase III Diet.

Guidelines:

- Remember to drink and eat VERY SLOWLY and STOP when you are full.
- Put your utensils down after each bite.
- Use a recommended protein supplement to ensure adequate protein intake. Aim for one protein supplement daily.
- Consume a Bariatric Phase I/II diet item every 2 to 3 hours while awake. Aim for 5 to 6 small feedings daily.
- Drink a minimum of 4 cups (32oz) of fluids per day. Keep a bottle of clear liquid fluids with you wherever you go.
- Separate liquid and solid food by 30 to 45 minutes.
- Spend up to 20-30 minutes with your feedings and stop when full. Do not eat when feeling rushed or stressed as this may cause gastric upset. Do not take more than 30 minutes to eat, as you may be developing grazing habits.

• Introduce one food at a time in order to rule out food intolerance. If you feel nausea or experience bloating, wait a few days before trying the food again. Keep in mind that one day, foods may be tolerated smoothly, while the next time you may have some fullness or discomfort.

Note: Try adding unflavored protein powder to soups and cereal to increase the nutritional value.

| In that have high fructose corn syrup listed in fit three ingredientsProteinUnflavored protein powder or flavored low carbohydrate, high protein shakesAll othersSoupStrained cream soup, broth, bouillon, consommé, pureed soupsAll othersNote: Add unflavored protein powder to add extra nutrition. Protein powder usually mixes best into foods that are cold. Mix it into foods before heatingSugar, honey, corn syrup, molasses maple syrup; | Phase II Diet (Full Liqu | lids) | |
|--|--------------------------|--|--|
| beverages beverages, caffeinated and decaffeinated coffee, tea Cereals Cream of wheat or cream of rice, pureed oatmeal thinned with skimmed milk, grits thinned with skim milk All others, especially bran cereals Dairy Non-fat buttermilk or milk, smooth sugar free yogurt, thinned, pureed cottage cheese and thinned ricotta Cow milk products Desserts All sugar-free: plain puddings, sorbet, Any with nuts, coconut, whole fruit applesauce, gelatin, popsicles, custard Fruits and Juices Fruits and Juices Vegetable juice, diet V8Splash Fruit drinks and fruit cocktails and other added sugar juices. Avoid dri that have high fructose corn syrup listed in fit three ingredients Soup Strained cream soup, broth, bouillon, All others Soup Strained cream soup, broth, bouillon, All others Soup Strained cream soup, broth, bouillon, All others Sugar and Sweets Sugar substitute Sugar, honey, corn syrup, molasser maple syrup: "Sugar alcohols may cause excess gas and nausea for some patients | Food Group | Foods Allowed | Foods That May Cause Distress |
| pureed oatmeal thinned with skimmed milk, grits thinned with skim milk Note: Add unflavored protein powder Dairy Non-fat buttermilk or milk, smooth sugar free yogurt, thinned, pureed cottage cheese and thinned ricotta Cow milk products Desserts All sugar-free: plain puddings, sorbet, applesauce, gelatin, popsicles, custard Any with nuts, coconut, whole fruit seeds Fruits and Juices Vegetable juice, diet V8Splash Fruit drinks and fruit cocktails and other added sugar juices. Avoid dri that have high fructose corn syrup listed in fit three ingredients Protein Unflavored protein powder or flavored low carbohydrate, high protein shakes All others Soup Strained cream soup, broth, bouillon, consommé, pureed soups All others Note: Add unflavored protein powder usually mixes best into foods that are cold. Mix it into foods before heating Sugar, honey, corn syrup, molasses maple syrup; "Sugar alcohols may cause excess gas and nausea for some patients | <u>Beverages</u> | _ | beverages, caffeinated and |
| Dairy Non-fat buttermilk or milk, smooth sugar free yogurt, thinned, pureed cottage cheese and thinned ricotta Cow milk products Desserts All sugar-free: plain puddings, sorbet, applesauce, gelatin, popsicles, custard Any with nuts, coconut, whole fruit seeds Fruits and Juices Vegetable juice, diet V8Splash Fruit drinks and fruit cocktails and other added sugar juices. Avoid dri that have high fructose corn syrup listed in fit three ingredients Protein Unflavored protein powder or flavored low carbohydrate, high protein shakes All others Soup Strained cream soup, broth, bouillon, consommé, pureed soups All others Note: Add unflavored protein powder to add extra nutrition. Protein powder usually mixes best into foods that are cold. Mix it into foods before heating Sugar, honey, corn syrup, molasses maple syrup; *Sugar alcohols may cause excess gas and nausea for some patients | <u>Cereals</u> | pureed oatmeal thinned with skimmed milk, grits thinned with skim milk | |
| applesauce, gelatin, popsicles, custardseedsFruits and JuicesVegetable juice, diet V8SplashFruit drinks and fruit cocktails and other added sugar juices. Avoid dri that have high fructose corn syrup listed in fit three ingredientsProteinUnflavored protein powder or flavored low carbohydrate, high protein shakesAll othersSoupStrained cream soup, broth, bouillon, consommé, pureed soupsAll othersNote: Add unflavored protein powder to add extra nutrition. Protein powder usually mixes best into foods that are cold. Mix it into foods before heatingSugar, honey, corn syrup, molasses maple syrup; *Sugar alcohols may cause excess gas and nausea for some patients | <u>Dairy</u> | Non-fat buttermilk or milk, smooth sugar free yogurt, thinned, pureed | |
| other added sugar juices. Avoid dri that have high fructose corn syrup listed in fit three ingredientsProteinUnflavored protein powder or flavored low carbohydrate, high protein shakesAll othersSoupStrained cream soup, broth, bouillon, consommé, pureed soupsAll othersNote: Add unflavored protein powder to add extra nutrition. Protein powder usually mixes best into foods that are cold. Mix it into foods before heatingSugar, honey, corn syrup, molasses maple syrup; *Sugar alcohols may cause excess gas and nausea for some patients | <u>Desserts</u> | applesauce, gelatin, popsicles, | |
| flavored low carbohydrate, high protein shakesflavored low carbohydrate, high protein shakesSoupStrained cream soup, broth, bouillon, consommé, pureed soupsAll othersNote: Add unflavored protein powder to add extra nutrition. Protein powder usually mixes best into foods that are cold. Mix it into foods before heatingSugar, honey, corn syrup, molasses maple syrup; *Sugar alcohols may cause excess gas and nausea for some patients | Fruits and Juices | Vegetable juice, diet V8Splash | other added sugar juices. Avoid drinks that have high fructose corn syrup |
| consommé, pureed soupsNote: Add unflavored protein powder to add extra nutrition. Protein powder usually mixes best into foods that are cold. Mix it into foods before heatingSugar and SweetsSugar substituteSugar and SweetsSugar substit | <u>Protein</u> | flavored low carbohydrate, high | <u>All others</u> |
| maple syrup; *Sugar alcohols may cause excess gas and nausea for some patients | Soup | consommé, pureed soups Note: Add unflavored protein powder to add extra nutrition. Protein powder usually mixes best into foods that are | |
| Miscellaneous Salt, flavorings, mild herbs All others | Sugar and Sweets | Sugar substitute | *Sugar alcohols may cause excess |
| | <u>Miscellaneous</u> | Salt, flavorings, mild herbs | <u>All others</u> |

Diet Progression Starting at 2 weeks to 2 months post surgery

Phase III Diet – Mechanical/Soft pureed

This diet includes semi-solid, soft and pureed foods that are easily digested. During the first 6-8 weeks after surgery, the stomach and small intestine are still healing. Limiting a diet to the foods listed in Phase III is necessary to avoid a blockage or other complications. Introduce foods slowly and try only a very small amount at first. Remember to always chew your food very well, and don't drink fluids with meals. Sip water and other beverages throughout the day, except at mealtimes. Often, foods that are not tolerated well at this stage can be added at a later time without any problem. You may experience occasional vomiting after eating, diarrhea, or cramping during the recovery period. If problems persist, then return to last tolerated diet phase and advance slowly back to the Bariatric Phase III diet.

There may be some foods that your digestive system cannot handle well such as gooey, gummy, chewy, sticky, dry or stringy textures. These food textures tend to create the most tolerance problems in Bariatric patients. This is purely a mechanical effect. Some foods are much harder to break down and will not be able to fit through the small stomach outlet. If the outlet gets plugged, possible symptoms may be abdominal pain, nausea and/or vomiting. Do not avoid a food just because you vomit once after eating it. You may wish to wait a few days, but you should try that food again. Tolerance to food may improve over time.

Guidelines:

Foods to Avoid:

Avoid foods that are gooey, gummy, chewy, sticky, dry or stringy. These food textures tend to create the most tolerance problems in Bariatric patients. In order to swallow these textures, one has to drink while they are eating.

Avoid bread, rice, and pasta as these foods tend to swell when they are consumed.

Avoid sugar free products (ice cream, cookies, candy) containing sugar alcohols (Sorbitol, Maltitol, Isomalt, etc.) if you do not know how you tolerate them. Sugar alcohols can cause problems with stomach aches, stomach cramps and diarrhea for some individuals with or without the surgery. The grams of sugar alcohol in a food product are listed below sugar on the Nutrition Facts Food Label

Remember:

Do NOT use a straw. Straws can cause air to enter into the digestive system and create pressure along with a feeling of fullness.

Avoid caffeine. Caffeine is an irritant and your stomach is extra sensitive after surgery. Additionally, caffeinated beverages also tend to be high in sugar and calories.

Avoid carbonated beverages. Just like with a straw, the carbonation will introduce air into the intestinal track causing discomfort.

Nausea or vomiting can occur after surgery. If experiencing persistent symptoms or symptoms not related to food eaten, contact your surgeon. Remember drinking and eating very slowly can help prevent complications.

| Phase III Diet (Mechanical/Soft pureed) | | |
|---|---------------|---|
| Food Group | Foods Allowed | Foods That May Cause Distress |
| Beverages | beverages | All carbonated or high sugar beverages, caffeinated and decaffeinated coffee, tea |

| Cereals | Cream of wheat or cream of rice, | All others, especially bran cereals |
|--------------------------|---|--|
| | pureed oatmeal, grits | |
| | Note: Add unflavored protein powde | r |
| | for extra nutrition. | |
| Dairy | Non-fat buttermilk or milk, smooth | Cow milk products |
| (Protain Source) | sugar free yogurt, thinned, cottage | |
| (Protein Source) | cheese, fat free ricotta cheese | |
| Desserts | All sugar-free: plain puddings, gelatir | n, Any with nuts, coconut, whole fruit |
| | popsicles, custard | or seeds. Avoid sugary or high fat |
| | | desserts |
| Eggs | Scrambled, soft cooked, poached or | Fried eggs |
| (Protein Source) | as egg drop soup, egg substitute | |
| Fats (use sparingly) | Low-fat mayonnaise, low cal butter- | Nuts, olives, all others |
| | flavored | |
| Fruits and canned fruits | Applesauce, mashed banana, | Whole raw fruits, fruits with coarse |
| | cooked or pureed fruit without skin, | skins and fibers such as oranges. |
| | canned peaches, canned pears, | Limit intake as they provide only |
| | canned fruit cocktail | limited nutritional value. |
| | | |
| /egetables | Canned/cooked until very soft/mushy | All other raw or whole vegetables |
| Baked meat/poultry fish | Poached fish, canned chicken or | Beef, pork, whole chicken breast |
| Protein Source) | | meat, all others |
| , | thinly sliced turkey breast or chicken | |
| | breast, low fat cottage cheese,, any | |
| | boiled lean meat chopped & mixed | **Fibrous, dry meats |
| | with broth, fat free ricotta cheese, | |
| | lean/ground pureed meats, meat | |
| | salads (chicken, egg, ham, turkey, | |
| Startabaa | | Pread posto producto rico, all |
| Startches | • | Bread, pasta products, rice – all |
| | instant mashed potatoes, plain | tend to swell in the stomach once |
| | crackers | eaten – may cause |
| Soup | Creamed soup made with pureed | All others |
| | vegetables chicken soup, broth, | |
| | bouillon, consommé | |
| | | |
| Sugar and Sweets | Sugar substitute. Sugar as sweet-n- | Sugar, honey, corn syrup, molasses, |
| | low, Aspartaine, sweeteners such as | maple syrup, alcohols; |
| | Equal®, Splenda/ sucralose, Asulfaine | +0 |
| | Potassium, Neotaine. | *Sugar may cause excess gas and |
| | | nausea for some patients |
| Miscellaenous | Salt, flavoring extracts, mild herbs, | Chili pepper, curry powder, cloves, |
| | seasonings | seed spices, coconut, horseradish, |
| | | popcorn, mustard, pickles |
| | | |

Diet Progression Starting at 2 Months Post Surgery and Lifetime Success Tips

Phase IV- Maintenance Diet

This diet is designed to provide adequate nutrients along with the use of a recommended supplemental vitamin and mineral regimen to promote a healthy weight for a life time. While you may be able to eat any foods that you desire at this stage, in order to maximize your weight loss, we recommend that you focus on eating lean meats/protein sources, fruits and vegetables as they provide more nutritional value for fewer calories. Avoid sweets and higher fat foods as they provide far less nutritional value and increased caloric intake. When you can only eat a limited amount of food, it becomes much more crucial to consume calories that offer you the most nutritional value.

Guidelines:

- Continue vitamin and mineral supplement regimen.
- Remember to drink and eat VERY SLOWLY and STOP when you are full.
- Put your utensils down after each bite.
- CHEW foods thoroughly to avoid blockage or nausea (25-30 chews per bite).
- Eat your protein source first. Refer to your dietitian regarding your protein goal for the day.
- Use a recommended protein supplement to ensure adequate protein intake.
- Eat 5 to 6 small feedings, or 3 small meals and 2 snacks throughout the day.
- Drink 6-8 cups of fluids per day. Keep a bottle of clear liquid fluids with you wherever you go.
- Separate liquid and solid food by 30 to 45 minutes. This may also provoke dumping syndrome.
- Spend up to 20-30 minutes with a meal and stop when full. Take your time to enjoy the food. Do not eat when feeling rushed or stressed as this may cause gastric upset. Do not take more than 30 minutes to eat, as you may be developing grazing habits.

• Introduce one food at a time in order to rule out food intolerance. If you feel nausea or experience bloating wait a few days before trying the food again. Keep in mind that one day, foods may be tolerated smoothly, while the next time you may have some fullness or discomfort.

- Exercise as recommended by your doctor.
- Minimize restaurant food intake to 1 time per week or less.

• Initially avoid dry meat, chicken, or fish (these foods should be moistened with a light sauce or broth.) Eventually, you may grill or broil meats.

• Remember that it is okay to get pleasure out of food. Since you are restricted to small portions, we encourage you to eat flavorful, but, healthy food choices!

As you are transitioning with the Maintenance Phase Diet, be careful. Some foods may still cause intolerance issues. Foods That May Be Difficult to tolerate after surgery

- Bread products
- Pasta products
- Bran cereal and other bran products
- Corn, whole beans, and peas
- Dried fruits and skins of fresh fruit
- Coconut
- Nuts and seeds

Avoid these foods due to either being unhealthy with added calories or causing intolerance issues

- Fatty foods and fried foods
- Candy, chocolate, any sugary foods and beverages
- Carbonated beverages
- Caffeinated beverages
- Alcoholic beverages

Fluids

Drink 48 to 64 ounces of water per day, between meals. Drink an additional 8-12oz if you are sweating. Recommended beverages should be unsweetened, non-alcoholic, low calorie, and non-carbonated.

Remember:

• Do NOT use a straw. Straws can cause air to enter into the digestive system and create pressure along with a feeling of fullness.

• Avoid caffeine. Caffeine is an irritant and your stomach is extra sensitive after surgery. Additionally, caffeinated beverages also tend to be high in sugar and calories.

• Avoid carbonated beverages. Just like with a straw, the carbonation will introduce air into the intestinal track causing discomfort.

• High calorie beverages tend to be low in nutritional value and contain simple sugars. Not only do they add additional calories with low nutritional value, they are quickly absorbed into the blood stream, causing a rapid rise in blood sugar levels, and increase hunger. Weight loss can be slowed down dramatically and even be stopped

• Refrain from alcohol post-surgery. Discuss with Dr. Lalor's medical staff if you have questions.

Note: if your urine is dark or your mouth is dry, you are not drinking enough!

Lifetime Success: To maintain a healthy weight and to prevent weight gain, you must develop and keep healthy eating habits. Be aware of the volume that you can tolerate and do not try to go beyond that. Make healthy food choices to ensure maximum nutrition and minimum volume. Stay away from empty calories such as starches and sugars. And of course, exercise must be part of your routine.

<u>Fluids</u>

Drink 1 ½ to 2 liters (40 to 64 ounces) of water per day, between meals (increase this amount by 20% if you are sweating). Recommended beverages are water, or if desired, unsweetened, low calorie, and non-carbonated drinks. Juices are high in calories, could make you dump and prevent you from losing weight.

Here are some tips:

- Avoid carbonated beverages. When the cold, carbonated beverage is consumed, it warms and releases gases, distending the stomach pouch and stretching the stomach. It then creates undue stress and subsequently causes stretching of the anastomosis.
- Do not drink 30 to 45 minutes before or after meals

Prevents pouch/sleeve stretching and vomiting:

- Sip slowly and carefully
- Eliminate caffeine. Many beverages contain caffeine, an appetite stimulant, which is detrimental to initial weight loss and long-term weight control. It may also cause stomach distress (heart burn) and promote dehydration.
- Sip fluids continually all day long to prevent dehydration (Carry a water bottle at all times!)
- Eliminate high calorie drinks such as milk-shakes, soda, alcoholic beverages and juices. High calorie beverages tend to be low in nutritional value and contain simple sugars. Not only do they add additional calories with low nutritional value, they are quickly absorbed into the blood stream, causing a rapid rise in blood sugar levels, and increase hunger. Weight loss can be slowed down dramatically and even be stopped. High calorie liquids are the enemy!

What we have learned from Experience

Frequent snacks slow down the weight loss. However, you should not go long periods without any food. You will be more prone to overeat later and not meet your protein requirements. Try to eat five to six, high protein, nutrient dense feedings – every day. It is not uncommon to feel full after just a couple of teaspoons of food initially after surgery. Between protein feedings, snacking or "grazing" on small amounts of other foods throughout the day will sabotage your weight loss and result in the inability to lose an adequate amount of weight.

Your body needs a minimum of 75 grams of protein each day. You need the protein to preserve your lean muscle mass, which in turn is going to help you continue to lose weight. You also need lots of protein for your body to heal properly. The primary source of nutrition should be protein. 70 to 75% of all calories consumed should be protein based (eggs, fish, meat, dairy products, etc.). Carbohydrates (bread, potatoes, etc.) should make up only 10 to 20%, and fats (butter, oils, etc.) only 5 to 15% of the calories that you eat. A diet consisting of 600 to 800 calories and 75 grams of protein should be the goal for the first six months. In the beginning, this may force you to eat mostly protein in order to reach the minimum requirement of protein. Stop eating when feeling full or if feeling any discomfort.

Eat slowly. Chew slowly and thoroughly – at least 25 times! Put your utensils down on the table after every bite. Remember that the pouch can only hold a small amount of food and it is best not to stretch the pouch by forcing food. Do not overeat. Listen to your body's signals – do not look at the food left on your plate.

Set aside 30 minutes for each meal. Take your time to enjoy the food. Do not eat when feeling rushed or stressed as this may cause gastric upset. Do not take more than 30 minutes to eat, as you may be developing grazing habits.

Always cut food into small pieces and chew food very well to prevent vomiting, cramping or blockage. If food should stick, try a teaspoon of meat tenderizer in a glass of water, sipped slowly.

Over the long-term, good, well-balanced nutrition is important: Protein first (Beans, tofu, tempeh, eggs, fish, seafood, dairy products, poultry, and meats), then vegetables, or fruits and then complex carbohydrates.

Do not overcook your meat as this makes it difficult to digest. Initially bake, boil roast or steam meats. Do not deep-fry your food. Once you reach the maintenance phase of the diet, you may grill or broil meats as well. You will notice that it is easier to eat protein rich foods if they are moist and juicy.

Even though you may not always experience "dumping syndrome," too much fruit juice, sugars and soft drinks will slow down your weight loss. It is best to restrict them all to allow your surgery to work for you. Fruit is allowed, but should be eaten after your protein food. Too much or large portions of fruit can sometimes cause dumping as well. Moderation is best.

Introduce one food at a time in order to rule out food intolerance. Don't be afraid to try new foods, but in small amounts to start. Many foods are going to be trial and error. What does not agree with you now may be acceptable in a few more weeks. Keep in mind that one day, foods may be tolerated smoothly, while the next you may have some fullness or discomfort. These problems eventually disappear, so don't be discouraged if they happen occasionally.

Labels are a great source of information. They give you in-depth information about the product you are purchasing with regards to the amount of fat, protein, carbohydrates, sugar, and fiber it contains. Become a label reader and become more aware of what you put into your body.

Remember that it is okay to get pleasure out of food. Since you are restricted to small portions, we encourage you to become a gourmet and only have the best! Make your dish visually appealing with beautiful tableware and enjoy your meal.

Foods to Avoid

Here is a list of popular foods that are filled with empty calories and that can provoke "dumping syndrome." The products provide mainly calories with limited nutritional value (protein, fiber, minerals and vitamins). Every bite counts after surgery. Avoid foods which contain sugar. Not only will they slow down your weight loss, but they can make you sick! Sugar may cause "dumping syndrome" in patients who have had the gastric bypass procedure. Dumping, in short, is when sugars go directly from your stomach pouch into the small intestine causing heart palpitations, nausea, abdominal pain, and diarrhea. Filling up on concentrated sweets and other simple carbohydrates can prevent weight loss and good nutrition.

Ice cream Pudding Sweetened, fruited or frozen yogurt Dried fruits Candied fruit Canned or frozen fruit in heavy syrup Fruit juice Sugar coated or sweetened cereal Sweet rolls and doughnuts Sports drinks Popsicles Cakes Pies **Cookies Jellies** Regular soft drinks/Lemonade Carbonated fruit drinks Sugared ice tea Table sugar Honey Candy and chocolate Milkshakes and chocolate milk High fructose corn syrup sweetened beverages Regular chewing gum Sweetened gelatin desserts Molasses Syrups Sherbet/sorbet Jams Pancakes and waffles with syrup Soup (taken with food) Sweet pickles or relish

Protein Power

Protein is the essential stuff of which our muscles, organs, heart and brain are all constructed. Our bodies require a constant supply of protein building materials, to repair and replace tissues that become worn out or damaged. Because the small stomach pouch reduces the capacity of the stomach to a very small volume, protein containing foods should be carefully eaten with each meal. This is crucial to be sure that the body gets enough protein to maintain itself. If the focus of each feeding is protein-rich foods, deficiency is very unlikely to occur. The primary source of nutrition should be protein. Seventy to 75% of all calories consumed should be protein based (eggs, fish, meat, etc), carbohydrates (bread, potatoes, etc.) should make up only 10 to 20 %, and fats (butter, oils, etc.) only 5 to 15% of the calories that you eat. A diet consisting of 600 to 800 calories and 75 to 90 grams of protein should be the goal for the first six months. Should you want to supplement with protein shakes, drinks or bars, be careful as they tend to be high in sugar and calories and quite poor tasting.

It is important to get at least 75 grams of protein each day. Remember that if you have not taken in adequate amounts of protein after three weeks, your body will start to break down its own source of protein – muscle. This will cause you to feel nauseated and weak. It is important to prevent this from happening. Protein also helps with cell tissue repair and helps fight infection. Early on, when you are taking in protein drinks, it is easy to keep track of how much protein you are consuming, but later, when you are eating regular food, it may be a little more difficult. Use the nutrition labels as your guide.

Please note-most patients can only handle 1 – 2 ounces (maximum ½ cup of meat per feeding.

| Food Name | Portion | Protein Amount |
|-----------------------|---------|----------------|
| Beans, kidney, canned | 1/2 cup | 8 grams |
| Cheese, cottage | 1/2 cup | 14 grams |
| Cheese, Mozzarella | 1 oz | 8 grams |
| Cheese, Ricotta | 1/4 cup | 8 grams |
| Chicken, thigh | 3 oz | 21 grams |
| Cod | 3 oz | 21 grams |
| Crab, steamed | 3 oz | 17 grams |
| Egg | 1 | 8 grams |
| Flounder | 3 oz | 21 grams |

Here is a list of the most popular protein rich foods and their nutritional value in regards to protein:

| Halibut | 3 oz | 21 grams |
|------------------------|---------|----------|
| Ham | 3 oz | 21 grams |
| Hamburger | 3 oz | 21 grams |
| Lobster, steamed | 3 oz | 16 grams |
| Peas, chick, canned | 1/2 cup | 7 grams |
| Salmon | 3 oz | 21 grams |
| Shrimp | 3 oz | 18 grams |
| Soybeans, Edamame | 1/2 cup | 14 grams |
| Soy flour | 1/4 cup | 13 grams |
| Soymilk | 1 cup | 7 grams |
| Soy nuts | 1/4 cup | 15 grams |
| Swordfish | 3 oz | 21 grams |
| Tempeh | 1/2 cup | 16 grams |
| Texturized Soy Protein | 1/2 cup | 11 grams |
| Tofu | 1/2 cup | 10 grams |
| Tuna, canned | 3 oz | 25 grams |
| Turkey | 3 oz | 21 grams |
| Veal | 3 oz | 21 grams |
| Yogurt, plain | 1 cup | 11 grams |
| | | |

Vitamins and Minerals

• TAKE YOUR VITAMINS AND MINERALS DAILY FOR A LIFETIME. GET YOUR BLOODWORK DONE AS ORDERED BY YOUR PROVIDER.

• After bariatric surgery, the small stomach pouch does not allow you to eat enough to get the proper nutrition as well as the malabsorptive part of the surgery decreases the body's ability to process vitamins and minerals.

• Vitamin/mineral deficiencies can occur after weight loss surgery. Among the highest nutrients at risk are Iron, Calcium, Vitamin D, Vitamin B12, Folate and Thiamin/Vitamin B1. Adhering to your post op vitamin/mineral regimen will reduce the risk of these deficiencies.

• The specific vitamin/mineral regimen is individualized based on a number of factors such as a person's lab values, gender, age and type of bariatric surgery.

• Chewable or liquid multivitamin and mineral supplements are required until 12 weeks after surgery. After this, you may switch to capsules/tablets as recommended by your weight loss surgery dietitian and/or medical staff. It is required to take a complete multivitamin/mineral supplement and calcium citrate supplements daily. Depending on your needs as well as product selected, you may need additional individual supplements (Iron, Vitamin D3 etc.) as advised by your dietitian and/or medical staff.

• Do not use vitamin gummies or gumballs. They are missing key vitamins and minerals for after surgery. Vitamin patches are not recommended due to questionable effectiveness on preventing vitamin/mineral deficiencies. Prior to purchasing any vitamin/mineral supplement, please review acceptable options with the Center for Weight Loss Surgery dietitian/medical team.

Exercise

First Steps

Your activity will be restricted to no strenuous activity for two weeks after the operation. You may walk and perform light household duties as tolerated upon your return home. Usually, frequent walks of short duration are tolerated better than one or two long walks that go to or past the point of fatigue. Increase the distance that you walk gradually. By the time you are six weeks post-op, you should be walking regularly unless you have specific problems with your weight bearing joints. In the latter case, water exercises are recommended. Please contact the weight loss center to find out when you can start water exercises as these are based on an individual case by case basis. Once cleared for exercise, you may qualify for a physical therapy evaluation and program if you already have considerable arthritic and joint damage. This referral can be arranged at your first post-operative visit. Avoid lifting in excess of 10-15 pounds for the first month after surgery. It is also suggested to avoid balance exercises (lunges, squats, advanced yoga poses) in first 6 months post op as your center of gravity continues to change as you lose weight.

Starting an Exercise Program

You are already aware that Bariatric surgery is merely a tool to weight loss. Of course, this means that in order to receive the maximum benefits from your surgery, you must incorporate exercise into your daily routine. Merely eating a low fat, high protein diet isn't enough. You must maintain both. Patients report exercise as a key factor in their ability to maintain their weight. If you want to feel good and maintain or build muscle mass, you must exercise. Exercise helps you lose weight and stimulates the production of "the good feeling" hormones called endorphins. Exercise also helps to keep your bone tissue dense and strong, increases strength and balance, boosts energy and improves quality of life. The mistake that many patients make is that they do not exercise until they feel "all recovered" or try to start exercising when they realize they are not on course to reach their goal weight. Patients who work hard on exercise early after surgery find it very rewarding. As the weight falls off, the capacity for exercise improves dramatically, with significant improvements on a week-by-week basis. Do not cheat your body of this important aspect of weight loss. Make a long-term commitment to exercising!

Yes, exercise is hard. It is difficult to stay motivated. It is not easy to find an exercise that you may like. Try to look into forms of exercise that you may have never tried before. Explore yoga, dancing, roller skating, etc... Exercise does not mean that you have to be in a gym for hours a day. Move more and sit less. If it has been some time since you have exercised regularly, then it is best to start slowly. Begin with as little as five minutes a day and add five more minutes a week until you can stay active for 45 minutes per day. We recommend that you make exercise part of your daily routine. Just being an active person is not enough exercise to be able to lose the weight and keep it off.

There are three forms of exercise: cardiovascular, strength-building, and flexibility. A well-balanced exercise program should include some type of each exercise from each category.

Cardiovascular exercise is also known as aerobic exercise. Aerobic exercise uses your large muscles and can be continued for long periods. For example, walking, jogging, swimming, and cycling are aerobic activities. These types of exercises drive your body to use oxygen more efficiently and deliver maximum benefits to your heart, lungs, and circulatory system. A simple definition of cardiovascular exercise is any exercise that raises your heart rate. At least 20 minutes of cardiovascular exercise three or four days a week should be enough to maintain a good fitness level. Any movement is good, even house or yard work. But if your goal is to lose weight, you will need to do some form of cardiovascular exercise for five or more days a week for 30 to 45 minutes or longer. The intensity level at which the exercise is done will also make a difference. The American Heart Association recommends 2.5 hours of moderate level

intensity per week or 1.25 hours of vigorous level intensity per week. Moderate level intensity could be described as the ability to talk during exercise but not being able to sing. Vigorous level is the inability to talk nor sing during exercise. See the heart rate zone chart below to help find your target rate.

Heart Rate Zones

| Age | Target HR Zone 50-85% | Average Maximum Heart Rate, 100% |
|----------|--------------------------------|----------------------------------|
| 20 years | 100-170 beats per minute (bpm) | 200 bpm |
| 30 years | 95-162 bpm | 190 bpm |
| 35 years | 93-157 bpm | 185 bpm |
| 40 years | 90-153 bpm | 180 bpm |
| 45 years | 88-149 bpm | 175 bpm |
| 50 years | 85-145 bpm | 170 bpm |
| 55 years | 83-140 bpm | 165 bpm |
| 60 years | 80-136 bpm | 160 bpm |
| 65 years | 78-132 bpm | 155 bpm |
| 70 years | 75-128 bpm | 150 bpm |

Important Note: Some drugs and medications affect heart rate, meaning you may have a lower maximum heart rate and target zone. If you have a heart condition or take medication, ask your healthcare provider what your heart rate should be. American Heart Association.

Strength-building exercises are known as **anaerobic exercise**. Anaerobic exercise makes your muscles and bones stronger. Strength-building exercises require short, intense effort. Using weights, resistance bands, or any other type of equipment that requires weights is a strength-building exercise. Even using your own body weight against gravity will build muscle. Strength-building exercise makes your muscles and bones stronger and increases your metabolism. Your muscles use calories for energy even when your body is at rest. So, by increasing your muscle mass, you are burning more calories all of the time. Strength building exercises should be performed two to three times a week for best results. Always warm up and cool down your muscles for 5 to 10 minutes before and after you lift any type of weight or before performing any resistance exercises.

Flexibility exercises, which are also anaerobic, tone your muscles through stretching and can prevent muscle and joint problems later in life. There are two types of flexibility stretches; dynamic and static. Dynamic stretching combines stretching with movement whereas static stretching involves stretching a muscle without moving. Examples of dynamic stretches are lunging forward or bringing a knee to the chest. If you bend over and touch your toes, you would be doing a static stretch. It is best to perform dynamic stretches to warm up before exercising and then static stretches after to help cool down and aid in muscle recovery.

Here are a few recommended sites that compromise different levels of effort from low impact to high intensity:

| Leslie Sansone | HyperStrike28 | Bariatric Trainer on Instagram |
|-------------------|-----------------------|--------------------------------|
| Paul Eugene | Fitness Blender | Phone apps: MyFitnessPal |
| Get Fit with Rick | Donavon Green Fitness | Baritastic |

Scan any of the below QR codes to be directed to various exercises and/or exercise sites.



Common Workout Mistakes

Not Stretching. Stretch before and after aerobic activity. Prior to stretching, warm up cold muscles that can cause

injury. Flexible muscles are far less likely to be pulled than tight ones.

Skipping warm-up. Like stretching, muscles need time to adjust to the demands placed on them. Rather than

hitting the treadmill running, for example, take a few minutes to walk, build up stamina and then hit your stride.

Skipping cool down. Due to time constraints, many people head straight to the shower after the last repetition. Instead, take a few minutes to lower your heart rate and stretch your muscles again to improve flexibility and help prepare the body for your next workout.

Loss of Bone and Muscle Mass

When the body is in a state of stress, and trying to combat starvation and malnutrition, it hoards its precious fat until any other usable fuel has been burned. Practically, the body will prefer to burn muscle mass, before consuming its precious fat. If muscle is not regularly used for exercise, it will be consumed to meet the energy needs. This concept is similar with calcium stores. Calcium is stored in the bones. Strong bones require calcium, phosphorous and other nutrients in addition to weight bearing exercise. People with obesity tend to have strong bones because of their obesity. When major, rapid weight loss occurs and adequate mineral supplementation is lacking, osteoporosis is more likely.

Loss of muscle mass and osteoporosis are preventable. Follow the nutritional guidelines in the Diet section to maintain optimal nutritional status. Cardiovascular and weight-bearing exercise can help prevent muscle and bone loss. Devote attention to the upper body strength as well. Many people find, after a few weeks or months of regular exercise that they actually begin to enjoy it, and start to work out even more! Fairly vigorous exercise, for more than half an hour can greatly enhance fat-burning, and hasten weight loss.

Pretending you are Superman. Yes, we know, you suddenly have this amazing amount of energy and think you can do anything. Great, but take it slowly in the beginning. Lifting too much weight is the best way to injure yourself. Increasing the weight slowly and steadily over time is a far more effective and safe way to increase muscle strength.

Being a Weekend Warrior. The mistake of the person who tries to fit a week's worth of exercise into a Saturday afternoon. For weight loss, it is more effective to sustain a moderate workout over several periods of time than to exercise intensely for only a few minutes.

Acting like you are a camel. Only camels can go for extended periods of time without water. To the rest of us it

is a necessity. Drink plenty of it before, during, and after your workout.

Climbing K2 while on the treadmill. What's the point of cranking up the machine to level 10, if you're just going to support your weight on the side rails? It is much more effective – not to mention easier on your wrists and elbows – to lower the intensity to the point at which you can maintain good posture while lightly resting your hands on the rails for balance.

Posing, instead of training. Yes, we have all seen them. They look great on the bicycle, since they are not sweating and are able to entertain a crowd with their stories. They are however, not exercising. Don't become one of them! While it's true that you don't want to overdo it, sitting on a bicycle without pedaling won't burn many calories. You should exercise intensely enough to sweat.

Believing more is better. The most effective way to strength train is to control the weight – the weight should not control you. When you have to jerk the weight, you are likely to jerk on the muscles, too. This again can lead to strain and injuries, with the muscles of the back being particularly at risk.

Eating for a marathon. If you are trying to watch your liquid calorie intake watch out for most drinks that advertise high energy. High energy often means high calorie. Drink your water and eat high protein foods at your regular meals and snacks.

Ten Tricks for Sticking with the Program

- 1. Look at exercise like a prescription medication. You do not have to like exercise, but you need to do it in order to stay healthy. You also have to do it in order to lose weight. No miracles here. If you have a condition that requires a medication every day, you are going to take this medicine every day. Your body needs exercise every day, so you have to give it what it needs.
- 2. **Do research.** Find out what types of classes your local gym/community/senior centers are offering. You are going to have a greater likelihood to stick to an exercise that is tailored to your needs and that you enjoy. Explore new types of exercise.
- **3.** Change your routine. So you love to walk, but you are bored with it? Sometimes, just changing the direction of your route can make all the difference. Find new places to go walking, change the time of day, or offer to walk your neighbor's dog.
- 4. Find a buddy. Let's face it, without a coach; most athletes would not be where they are now. Why should you be any different? We all need someone to budge us and make us go the extra

mile, especially when it comes to exercise. Find a friend, a neighbor or personal trainer to meet you at the gym or in the park.

- 5. Bundle favorites with activity. Do you have a favorite TV show or podcast? Do you like to listen to music, audio books or meditate while you exercise? Fifteen minutes on the bike can seem like an eternity without music, ear phones or a screen but with the right medium to occupy your brain, it will not seem so long. This could be a way to hold yourself accountable for exercising. Make a pact with yourself that if you exercise, you can reward/treat yourself by doing your favorite activity at the same time.
- 6. Participate in group sports. You don't need to join the soccer team, but participating in a group activity increases the chances that you will stick to it. Choose water exercise, yoga, or stretching classes. Choose places and times where there are other people who are actively involved in exercise.
- 7. Know what makes you give up the program. If going on vacation throws you off your fitness plan, try incorporating exercise into your vacation. If boredom makes you give up, stay interested by changing types of exercise and times.
- 8. Make a schedule. If you don't put exercise into your daily schedule, you will most likely do everything but exercise. Plan in babysitters. Schedule specific activities on specific days, like walking 20 minutes on Monday, yoga class on Tuesday, etc.
- 9. Use a workout log/wearable technology. Write down the exercise you do or check into your app and see how you have improved. Just like weight loss, sometimes one does not see the scale drop, but the inches seem to melt away. It is difficult to keep up with exercise when you do not see the results. Write down the number of repetitions, the weight used, the length of walk, the time, etc. Connect with other people that use the same app as you do. Seeing their progress or knowing they will see yours can motivate you and/or hold each other accountable to exercise.
- **10. Stay active between workouts**. Walk as much as possible between workouts. Park farther away. Get off the bus a couple of stops early. Always keep a good pair of walking shoes in your car, should you have unexpected time to take a walk.

Overcoming Excuses to not Exercise

- I don't have time.
 - Set a time and stick to it.
 - Exercise while you are watching TV or using the laptop/tablet (bundle). Tell yourself it's a reward for working out.
 - \circ $\;$ Remember that exercise is a stimulant and leads to more productive use of time.
- Exercise is work.
 - \circ $\;$ Work is work, and most people do it 40 hours a week.
 - In order to lose the weight and get the most out of your surgery, you only need 4 hours of exercise
 - per week. That's only 2.3% of your week. Think

about it!

- I'm too tired.
 - \circ Exercise improves energy levels throughout the day.
 - Exercise improves the quality of your sleep.
- I might fail.
 - Exercise is not a contest!
 - \circ $\;$ If you stick with the program, you will succeed no matter what.
 - o Remember to start slowly and gradually increase your intensity and duration,
- I hate exercise.
 - Everyone likes some exercise, you just have not found something you like yet keep searching!
 - Try exercising with a friend.
 - \circ Listen to music or an audio book. At least this way, your focus will not be on the exercise.

The Walking Workout

Recent research indicates that walking is one of the best ways to be in charge of your life. Besides the well documented health benefits, the beauty of walking is you can do it at your own pace. Walking is the first type of exercise that we recommend both before and after surgery. If you are new to exercise and you are also recovering from surgery, you can walk 10 to 20 minutes 4 or 5 days a week. As you get stronger, you can increase the distance and the speed to your comfort level.

As with any type of exercise, it is still important to warm up, then stretch. Start by walking for just five minutes and then do a few gentle stretches. Your muscles will stretch better if you walk a little first. Ask a fitness professional which stretches are best for you.

Consistency is probably the most important part of your walking routine. The more time you can devote to walking each day, the healthier you'll be. Remember that short walks are better than none at all. Health, like life, is a journey. What you need to do is take the first step.

Water Fitness

Many of our clients like water programs. Contact our office to ask when you can start water activities. Water programs are great, since they are non-weight bearing and therefore are gentle to painful joints. Water fitness can improve strength, flexibility, cardiovascular health, decrease body fat, facilitate rehabilitation after surgery, improve functional living and even enhance other sports skills. Water classes today offer more versatility than ever, but how do you find the right class for your goal, interests, needs and skills?

Find the facility first. Look at your local YMCA, community center, health club and hospital. Look for a well-maintained pool, adequate locker rooms and life guard on duty. Hospitals usually offer arthritis or heart-disease related classes through their physical therapy program and will let you join the class with a prescription from your Primary Care Physician. These classes are great for beginners, because of being in a healthcare environment and the cost is often covered through the health insurance. Health clubs and the YMCA also offer more specialized classes with different fitness levels. Whichever class you decide to try, start with the lowest level and use the smallest water weight at first. Many people make the assumption that because the exercise is in the water, they cannot injure themselves.

Most importantly, you should feel comfortable in the environment. If the water is too cold, find the staff to be lacking empathy or do not feel at ease in your class, then this is not the right class for you. Water exercise, like any other type of exercise, should be done in a relaxing environment. If this is not the case, it is a sign to look for something else.

Choosing a Personal Trainer

There is a reason movie stars and athletes use personal trainers: working with a personal trainer is one of the fastest, easiest, most successful ways to improve your health. In fact, personal training has proved so effective that it has spread well beyond the world of the rich and famous. Today, personal trainers are used by people of all fitness, social, and economic levels to help make lifestyle changes that they could not achieve by themselves.

Consider the following things a personal trainer can do:

Improve your overall fitness. A trainer will monitor and fine tune your program as you go, helping you work your

way off plateaus.

Reach a healthy weight. Remember that the surgery is only one of the tools to weight loss. Body fat reduction, weight reduction and management, body shaping and toning can all be achieved with the aid of a qualified personal trainer who can help you set realistic goals and determine strategies, all while providing the encouragement you need.

Learn to stick to it. Sticking with well-intentioned plans is one of the biggest challenges that exercisers face. Qualified personal trainers can provide motivation for developing a plan that places a high priority on health and activity. A trainer can help you brainstorm an agenda to overcome your biggest obstacles to exercise.

Focus on your unique health concerns. Most personal trainers are familiar with the special needs of morbid obesity, arthritis, and diabetes. Your trainer can work with your physician, physical therapist and with Bariatric Program Services to plan a safe, efficient program that will enable you to reach your health goals.

Find the right way to work out. You will learn the correct way to use equipment with the appropriate form and technique to reduce your risk of injury.

Stop wasting time. Get maximum results in minimum time with a program that is specifically designed for you. Workouts that use your strengths and improve on weak points in a matter that is efficient and effective.

Learn new skills. Want to learn to skate, golf like a pro or get ready for an adventure vacation? An individualized program can improve your overall condition and develop the specific skills you need.

Enhance your mind, body and spirit. A personal trainer can act as a door to personal growth experiences. Many personal trainers provide mind-body activities, such as Tai Chi sessions.

Benefit from the buddy system. What could be better than making a commitment to regularly meet with someone who will provide you with individualized attention?

Make sure that your trainer has a college degree in the field of fitness. Ask if the trainer belongs to professional fitness and exercise associations and regularly attends workshops or conventions. You can find a personal trainer through your local health club or Community Center.

Exercise Websites to check out:

www.verywellfit.com

www.nih.gov/health-information

www.heart.org/en/healthy-living/fitness

Long-term Success

Follow-up

Follow-up is extremely important with bariatric surgery. Read this surgery guide carefully before going to office visits, so that you can have some questions ready for the staff. Life-long follow-up appointments are expected and need to be scheduled with the office staff. Of course, visits with other specialists are encouraged, should you have any problems. Long-term, the surgeon expects to see you once a year. It is probably a good idea to have your annual physical exam scheduled with your primary care physician before your annual surgical appointment. The primary care physician can have testing done which can then be reviewed with you by your surgeon. Your surgeon may also want to test for vitamin and nutrient deficiencies.

Expected Weight Loss

Most patients experience a fairly rapid weight loss in the first three to six months following surgery. The greatest weight loss will occur in the first three months after the sleeve gastrectomy procedure. Most studies suggest that patients lose an average of 55 to 80% of excess weight the first 12 to 18 months. After 18 months, the stomach has stretched to hold more food. This stabilizes the weight loss. At this time, it is critical to adhere to the low fat, low sugar diet and exercise recommendations outlined in this guide to maintain your weight loss.

After 24 months post-op, studies have shown that most patients keep off at least half of the excess weight over 5 years. Evidence past 5 years is limited but we suspect weight loss can be well maintained with a good diet and exercise program. There may be some weight regain, however, patients are much less obese even long after surgery than before the surgery. A strict exercise and diet regimen will combat any weight regain.

Research has shown that weight loss surgery patients who exercise three or more times per week for a minimum of 30 minutes lose an additional 12% of their excess weight in six months compared to their cohorts who do not exercise as strenuously.

Lifestyle Changes

You cannot lose weight without having a healthy lifestyle. Do you have an unhealthy lifestyle? Here are some simple things you can do right now to keep yourself and your friends and family on track:

- Get rid of all the junk food in your house. (No, the kids don't need junk food). Restock your cupboards with healthy snacks your whole family can enjoy.
- Have allotted time for fun and outside play.
- Have a daily schedule to ease the chaos and decrease some of the stress in your life. This may mean taking some activities out of your schedule or your kids' activities. Often, we plan to do more than we have time for.
- Cut the time you and your family spend each day watching TV or using the computer. Spend more time doing more active things such as playing outside with the kids or going for a walk.
- Plan your social life with activities that do not include food, such as going out dancing rather than going out to dinner.

Maintaining the Weight

We have been referring to the sleeve gastrectomy surgery as a tool to help you lose weight. The goal of the surgery is not to allow you to eat more, but to allow you to lose weight with the fewest possible restrictions to your diet. It is not automatic, and your behavior after surgery plays a very large part in your outcome. How you use the tool will affect your weight loss. Please follow the recommended guidelines in this workbook. Your window of weight loss is anywhere from 12 to 18 months. With exercise you can control the weight loss and may see weight loss for up to 24 months.

Sleeve gastrectomy works in part by making the stomach much smaller so that one feels full sooner. It also works to curb the appetite because the cells that stimulate the appetite are almost entirely removed (Ghrelin cells). The surgery will give you a full feeling on a much smaller meal, and improve the sense of self-control as you see results quickly.

By eating only at mealtime and only until you feel full, your daily food intake will be decreased enough to provide weight loss. The weight loss will vary from week to week and may plateau for days and up to two weeks at a time. If you are at a plateau during the first six months post-op that lasts longer than two weeks, please call the office. Use your Journal to help the staff identify your needs. Gradually, the rate of weight loss will decrease and your weight will stabilize. Your responsibility is to avoid snacking, grazing (continuous nibbling), choosing healthy foods, be active and exercise daily, and nurture the process of recovery from obesity. Participate in group meetings and continue to use this guide to help you through the surgery process. Be sure to keep your regular office appointments so that your weight loss can be maximized and your health monitored.

Again, surgery is a tool, something to help you accomplish your health goals. There will be adjustments that you will need to make. Our staff will be glad to guide, support and motivate you. We know that you can do it!

The 8 Rules of Weight Loss

There are eight rules that we have found helpful for weight loss success. All successful patients who have had bariatric surgery have these things in common.

1. Consumption of an adequate amount of liquid, preferably water, is crucial. You should consume a minimum of 1 ½ to 2 liters of liquid each day. This can only be done slowly, sipping fluids throughout the day.

Never drink more than two ounces of liquid over a 10 to 15 minute period. On very hot or humid days, or when exercising, you should drink additional glasses of water. This is necessary in order to prevent dehydration.

2. Only eat at mealtimes. Between meals, snacking or "grazing" on small amounts of food throughout the day will sabotage your weight loss and result in the inability to lose an adequate amount of weight.

3. The primary source of nutrition should be protein. 70 to 75% of all calories consumed should be protein based (eggs, fish, meat, etc). Carbohydrates (bread, potatoes, etc.) should make up only 10 to 20%, and fats (butter, cheese, etc.) only 5 to 15 % of the calories that you eat. A diet consisting of 600 to 800 calories and 75 grams of protein should be the goal for the first six months.

4. Never drink liquids when eating solid foods. Liquids should be avoided for a period of 30 minutes before and 30 minutes after eating meals.

5. Avoid foods and liquids that contain sugar or high fructose corn syrup. Not only will they slow down your weight loss, but they may make you sick! Sugar may cause "dumping syndrome" in patients who have had the gastric bypass procedure. Dumping, in short, is when sugars go directly from your stomach pouch into the small intestine causing heart palpitations, nausea, abdominal pain, and diarrhea.

6. Stop eating and drinking when you begin to feel full. Listen to your body's signals. Do not look at the food that is left on your plate. Overfilling your stomach pouch will cause your pouch to stretch and may prevent weight loss success – or worse – causing long-term problems and complications.

7. It is essential that, within the first six weeks after surgery, you begin a regular exercise program. Our research indicates that this will increase your overall weight loss by 12% in six months.

8. Attend support group meeting and workshops. They will help you stay focused and motivated and help you work through the changes that weight loss brings. Plus, you might just make a few new friends.

<u>Changes</u>

As you lose weight, you may notice other changes in your body. You may experience increased energy levels and you should be able to sleep better at night. You can anticipate resuming a more normal life soon after recovery. As your weight decreases, more physical activity will be possible. Ongoing exercise will be important for calorie burning, muscle tone, and a sense of well-being.

Long-term, you can anticipate doing things you were not able to do before. Traveling, eating in restaurants and other pastimes will be more enjoyable. There may be new career and social opportunities, and a more positive self-image.

You may notice excess skin folds and wrinkles where the greatest weight loss has occurred. Reconstructive surgery to improve your appearance should be delayed until your weight loss has been stable for at least one year. We will be glad to recommend an experienced reconstructive surgeon.

Reconstructive/Plastic Surgery

Patients who lose more than 100 pounds also face another challenge – excess skin. This is especially noticeable on the face, upper arms, breast and abdomen. Skin folds under the arms, breasts, abdomen and legs can cause chaffing, and cutaneous bacterial and yeast infections. Reconstructive surgery is indicated for these patients.

Reconstructive surgery can help give patients more self-confidence and a better body image. It is not unusual that patients that have reconstructive surgery will also lose several pounds of excess skin. This results in better fitting clothing. Reconstructive surgery to improve your appearance should be delayed until your weight loss has stabilized for at least one year. We will be glad to recommend an experienced surgeon.

Emotional Issues

Emotional Considerations

Bariatric surgery has both physical and psychological effects. Please do not take these changes lightly. All patients need to consider this before and after surgery. Some of the feelings that you may experience include depression, frustration, anxiety, anger, disappointment, loss, helplessness, euphoria, excitement, joy and others. Many of these feelings have their foundation in physiological changes. Short-term, the immediate sense of loss of food is often a cause for distress. Along with the rapid reduction in estrogen levels you may experience symptoms of depression, not unlike the "baby blues." Long-term, you may be experiencing changes in body image and further awareness of the social implications of obesity.

Bariatric surgery is not a fix for your everyday problems with your spouse, friends, or family members, employment, or social life. This surgery will allow you to begin to gain control over one aspect in your life: your weight.

Although you have elected to have weight loss surgery to resolve your obesity, weight loss also changes the life style you knew so well. Even with its problems and tensions, obesity was comfortable, simply because it was known.

Now, that life is gone. When the reality of the new situation confronts you, it is natural to begin a longing for your old way of life.

This expresses itself in several stages. These stages include denial, anger, bargaining, depression, and finally, acceptance. Different people go through these stages differently. It is natural for some patients to experience denial before they have surgery, because they focus on the positive. They seem to understand the risks and complications, but often do not recall hearing about the emotional and physical stress that follows. After surgery is performed, some patients try to bargain for extra space in their stomach pouches. They overeat, experience the painful consequences, and may become angry for getting into this situation. This anger may also surface when other discomforts or complications develop throughout the recovery period. These feelings are difficult to accept or express openly, and depression may follow. Feelings of sadness and crying episodes can be common occurrences. These emotional responses to surgery are completely understandable. They cannot be eliminated, but must be experienced and worked through. Adapting to the changes taking place in your body and your relationship to food can take many months.

The final stage of acceptance will occur when you feel at peace with the changes brought about by surgery.

In the past, one of the best methods for you to cope with life stress may have been for you to eat. This method will no longer be useful, especially while your new stomach pouch is at its smallest. One of the keys to success of this surgery is to learn to replace those comforts with healthy activities. Replacement methods for coping will need to be learned, but this will take time. Try not to sabotage yourself. The experience of such rapid bodily change will likely be accompanied by many emotional ups and downs, depending on your age and sex.

There are many things that you can do to help yourself through the recovery and adjustment period. One of the most important aspects is the recognition and understanding of the experience of loss. Expect to have ups and downs as the weeks go by. If you are feeling teary and depressed, have a good cry. Do not suppress your emotions. They will surface again anyway. Use the journal in this guide to get you started. Going for a walk or adding other physical activities will help you manage this changing phase of your life.

Your adjustment and acceptance will also be eased by the realization that bariatric surgery, with resultant weight loss, will not solve your personal or relationship problems by itself. You cannot expect a perfect body or a perfect life after the weight loss. In fact, many new problems will develop because of the many new

opportunities. These will need to be recognized and attended to. Try to be as positive as possible. As new challenges pop up, recognize them and develop a problem solving approach.

Adjust your expectations. Set realistic goals and stay occupied with work, hobbies and exercise. You will also feel more positive if you look your best. Pay attention to hygiene, hairstyle, clothes – women may want to experiment with make-up. Take a walk, listen to music, meditate or pray. Do things you always wanted to do. Enjoy the process of rediscovery. Talk to your spouse, family doctor, friends, and other patients for support.

We are here to support you through the changes with personal consultations, support groups and workshops. Use your Journal and the Journal section in this guide to help you express your experience. If, at any time, you feel overwhelmed or otherwise need more assistance, please contact us. We will be glad to take the necessary steps to refer you to the best possible resolution.

<u>Counseling</u>

Occasionally, personal adjustment or relationship problems will persist after surgery. These should be addressed in professional counseling. Emotional counseling may be needed during the phase of adjusting to the new physique and the many changes that follow the surgery for clinically severe obesity. We can help recommend counselors who are qualified and experienced in working with people who have had weight reduction surgery. Do not hesitate to request this. Major changes can cause new problems to emerge or old ones to intensify. Our experience has shown us that in the period of stress, starvation and weight loss that occurs following surgery, mild to severe depression is common. You and your support person should look for the signs of depression: persistent sad, anxious or empty mood, loss of interest or pleasure in activities (including sex), restlessness, irritability or excessive crying, feelings of guilt, worthlessness, helplessness, hopelessness, changes in sleep patterns, decreased energy, fatigue, "feeling slowed down," thoughts of death and suicide, difficulty concentrating, remembering or making decisions, persistent physical symptoms that do not respond to usual treatment. Effective drug and psychological treatments are available. With treatment, patients can improve and return to normal quickly. Unfortunately, most depressed people do not recognize their depression. You and your support person need to be aware of the risks of depression in the recovery period and if present, we need to discuss possible treatment. Professional counseling can be a positive step toward a healthier adjustment.

Family and Friends

Bariatric surgery is not a fix for your everyday problems with your spouse, friends, or family members, employment, or social life. This surgery will allow you to begin to gain control over one aspect in your life: your weight.

You can expect your family and friends to have varying reactions to your surgical experience and to the weight loss that follows. Although you hope your loved ones will be supportive and helpful during your ups and downs, this may not always be the case. First of all, your partner or spouse has become adjusted to you and your obesity. This may result in a resistance to the change, taking the form of disagreement, mood swings, or refusal to support your dietary or exercise regimen. Keep communication channels open, recognize signs of distress in your partner, adjusting to the changes in your body and behavior. These changes will require your partner to relate in new ways to you. This takes time, effort and patience. If you are experiencing serious ongoing problems in your relationships, some short-term professional counseling may be helpful.

Friends and extended family members also must adjust. Many of them will be positive and genuinely delighted for you. They will stick with you through highs and lows, and relate to you as the lovable, unique person they have grown to appreciate. Others have become secure in your obesity and will have difficulty adjusting to the new body you are developing. If they are also obese, they will be constantly reminded of

their continuing problem as you lose weight. They may be quick to point out sagging skin, wrinkles and other disadvantages. They may envy your courage or physical health. Be open about your appreciation of them and their concerns for you. Recognize their ambivalence and talk with them about their own feelings. And finally, let people pull away if they need to for a while. Some time may need to pass before they sort it out for themselves. Your main responsibility is to care for yourself. Others are responsible for their own feelings and actions. Hopefully, most close family members and friends will eventually adjust.

Body Image

Keep in mind that as your body undergoes changes in weight and size, it is likely 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 similar to the phantom limb phenomenon, where a person who has lost a limb continues to experience pain or feeling from the missing part, and in fact, feels they still have a limb. As you lose weight, you may actually be surprised when you see your reflection in a store window or mirror. You may not feel like this person is you! It is normal to feel like you are still the same size as you were before, but there are some definite ways to help you work at this.

Here are some examples:

- Take a picture of yourself every few weeks during your weight loss and compare the changes
- Try on clothes in a smaller size. You'll be surprised how quickly you will be changing sizes
- Have someone point out a person in a public place who is about the same size as you. This helps you have a new frame for reference.
- Take measurements of yourself every few weeks and record the results
- Save an outfit from your pre-op size and try it on every few weeks or whenever you need a lift.
- Accept compliments graciously. Don't minimize or qualify your weight loss. You have worked hard for the outcome you have been complimented for. Simply say, "thank you."

The Internet

We greatly encourage support, both before and especially after surgery. Group support and being connected to other patients is vital to a successful surgical result. The internet is a way to help fill the void between group meetings. For this and many other reasons, we encourage utilization of the internet.

Beware that typing is not considered exercise. We also want to stress the need to maintain a cautious, objective approach to what you read, especially when it does not agree with your own intuition. Try to stay on chat groups recommended by our staff. We urge you to ask us directly if you have any questions about the surgical process. Please feel free to contact our staff with any concerns or questions – we'll either have the answer or do our best to find it for you.

Resources:

www.woodcountyhospital.org - Wood County Hospital/CWLS website

www.obesityhelp.com - a national website for connecting with other bariatric patients

www.bariatricedge.com - industry sponsored information on procedures and concerns

www.asmbs.org - the American Society for Metabolic and Bariatric Surgery

www.lapband.com - comprehensive information about the adjustable gastric band

www.yourplasticsurgeryguide.com/bariatric - information on plastic surgery

www.chefdave.org - suggestions for post surgery recipes

Group Meetings

We consider group meetings to be essentially mandatory. We know realistically we cannot make you attend these meetings, but they are for you: for education, support, nutritional and medical advice. Group meetings provide peer support, allow you to learn about the surgery first hand from others who have had gastric bypass, let you share your experiences and provide periodic guest speakers to expand your knowledge on obesity surgery related topics. They are great for problem solving. These support groups are a wonderful opportunity to make new friends and be with people who share what you are experiencing. It can be reassuring to hear other's viewpoints on common concerns and to get additional information from the group leader or guest speaker. Research has shown that patients who attend support groups regularly are more successful with their weight loss and mental adjustment than people who do not, especially long-term. You will find these meetings helpful in many ways. Family and friends are always welcome to attend. These groups are led by our behavioral therapist, Lynette Crow.

Stress Eliminators

- Love yourself. Add yourself to your list of "loved ones." Make taking care of your physical, emotional, social and physical needs a priority.
- Listen to music. Let the rhythms drain away your stress.
- Breathe deeply. Inhale through your nose and exhale through your mouth slowly and imagine that you are inhaling calmness and exhaling stress.
- Laugh often. Have a giggle. Watch a comedy on video, listen to a tape or read the Sunday funnies. Laughter is the best medicine.
- Speak up for yourself. People who feel they have some control over some aspects are less subject to stress. If you don't like the way something is going, say so politely. In order for change to occur, you must take action.
- Let go. Learn the difference between what you can control and what you cannot. Stop worrying about things that are beyond your control. Use that energy to make changes you can. Focus on your own happiness.
- Manage your time. To avoid feeling rushed, plan out how much time you will need to accomplish tasks, to get ready to go places, to travel, to eat, etc...
- Get a hug. Humans are social beings and we require some safe, nurturing physical contact.
- Practice meditation. Spend at least 15 minutes a day relaxing your mind. Sit comfortably, breathe calmly, perhaps listen to some soft music, and just clear your mind.
- Treat yourself with compassion. Give yourself permission to make mistakes, to play without feeling guilty, to change your mind, and to set aside time only for you.

Notes:

Things to Remember

We strongly recommend that you record the important information regarding your surgery. These things include information that may be necessary in the future if you experience medical problems that a physician may need to have comprehensive medical history. After hours, Dr. Lalor can be reached 24 hrs, 7 days a week through the hospital and nursing supervisor.

Surgeon:

Peter F. Lalor, MD Medical Director The Center for Weight Loss Surgery 970 West Wooster Street, Suite 222 Bowling Green, OH 43402 Phone:419.373.7699

Hospital

Wood County Hospital 950 West Wooster Street Bowling Green, OH 43402 Phone: 419.354.8900

| Date of Surgery:_ | | |
|-------------------|--|--|
| 0,- | | |

| Beginning Weight:_ | |
|--------------------|--|
| 0 0 0 - | |

BMI:_____

Procedure:

Special Instructions:

<u>Journal</u>

We strongly recommend that you start a journal to accompany you through your journey. Along with pictures, measurements and milestones, the journal will help you put into words the changes that you are going through. You will treasure this work and will be glad to flip back the pages to see your transformation. To get you started, we have given you a few exercises for you to complete. This is your journal; nobody is going to ask you to share it with anyone, unless you want to do so. Be truthful and honest with yourself and have fun writing down on paper the struggles, the surprises and the accomplishments (and don't forget to date it).

How does it feel to make a commitment to living a healthier, happier life?

What will you do to guarantee you will stick with it?

What I like most about myself is:

What I do to enhance all the good qualities in me is:

When I look in the mirror I am a different person and what I like about this person is:

What I don't like about that person is:

What do you plan to do to improve your self-esteem and self-image?

The most difficult situation I had to deal with since surgery is:

When dealing with my significant other I have had to help him/her adjust by...

Would I pick me as a best friend?

How do I feel about my body now?

When I look in the mirror and see myself as "fat," what do I do to help me overcome that feeling...

My significant other tries to help me adjust by...

Other thoughts, concerns, etc.

Sample Bariatric Menus

Bariatric Post-Op Day 1-2: Bariatric Phase I: Clear Liquids

- Sip clear liquids throughout the day.
- Try to get in 4 ounces per hour (~ 1 ounce every 15 minutes) for a total of 32 ounces throughout the day.

Bariatric Post op Day 2-14: Bariatric Phase II: Full Liquids

- The main focus during the first two weeks after surgery is consuming adequate fluids.
- If able, work towards a total of 20-30 grams of protein per day for the first week and 30-50 grams of protein per day in the second week after surgery.
- May drink one to two high protein drinks during the day. Look for high protein (15-25 grams/serving) AND low surgery (less than 10 grams/serving)
- May add unflavored protein powder (i.e. Beneprotein, Unjury, or nonfat dry milk powder to food and beverages to help increase protein intake.
- Sip slowly and stop when you fee full, your stomach may hold only a few tablespoons after surgery. After time your stomach may be able to hold ½ to 1 cup (4-8 ounces), but everybody is different. You need to listen to your new stomach to determine your level of fullness.

Bariatric Post-Op Day 2-14: Bariatric Phase II: Full Liquids (Example #1)

| Time | Quantity | Foods | KCals/Protein |
|----------|-------------|--|--------------------------|
| 7:00 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 8:00 AM | 2-4Tbsp | Cream of wheat/rice cereal with skim milk | 75 kcal / 6.3 pro |
| 9:00 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 10:00 AM | 4-8oz. | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200 kcal / 12-15 pro |
| 11:30 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 12:00 PM | 1/4-1/2 Cup | Cream of potato soup, made with milk - strained + scoop of Beneprotein (add 25 calories, 6 grams of protein) | 38-75 kcal / 1.5-3 pro |
| | 1 | Sugar-freeicepop | |
| 2:30 PM | 1/4-1/2 Cup | Vanilla sugar-free instant pudding made with skim milk + scoop of Beneprotein (add 25 calories, 6 grams of protein) | 40 kcal / 2 pro |
| 3:00 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 5:30 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 6:00PM | 1/4-1/2 Cup | Lowfat cream of tomato soup – strained, made with skim milk + scoop of Beneprotein (add 25 calories, 6 grams of protein) | 40-80 kcal / 1.5-3 pro |
| 6:30 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 9:00 PM | 4-8oz. | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200 kcal / 12-15 pro |

• TOTALS: Fluid: 42 ounces; Protein: 35-60 grams; Calories: 430-650

| Bariatric Post-Op Days 2-14: Bariatric Phase II: Full Liquids (Exam | ple #2) |
|---|---------|
|---|---------|

| Time | Quantity | Foods | KCals/Protein |
|----------|-------------|---|--------------------------|
| 7:00 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 8:00 AM | 2-4Tbsp | Cream of wheat/rice cereal with 2/3 cups skim milk | 75 kcal / 6.3 pro |
| 9:00 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 10:00AM | 4-8oz. | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200 kcal / 12-15 pro |
| 11:30 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 12:00 PM | 1/4-1/2 Cup | Sugar-free vanilla or lemon yogurt (no fruit) + scoop of Beneprotein (add 25 calories, 6 grams of protein) | 26-52 kcal / 2-4 pro |
| | 1 | Sugar-freeicepop | |
| 2:30 PM | 1/4-1/2 Cup | Sugar-free coffee or banana yogurt (no fruit) + scoop of Beneprotein (add 25 calories, 6 grams of protein) | 26-52 kcal / 2-4 pro |
| 3:00 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 5:30 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 6:00 PM | 1/4-1/2 Cup | Lowfat cream of chicken soup – strained + scoop of Beneprotein (add 25 calories, 6 grams of protein) | 48-96 kcal / 2-3.5 pro |
| 6:30 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| 9:00 PM | 4-8oz. | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200 kcal / 12-15 pro |

TOTALS: Fluid: 42 ounces; Protein: 36-66 grams; Calories: 400-750

Bariatric Post-Op Days 14-60: Bariatric Phase III: Soft/Pureed Foods

- Add 1 new food item at a time. Start slow 1-2 Tbsp. at first and advance as tolerated. You need to listen to your new stomach to determine your level of fullness.
- Spend no more than 20-30 minutes when consuming meals.
- Focus on protein first at meals. Do not add other foods from the menu if your new stomach feels full.

Bariatric Post-Op Days 14-60: Bariatric Phase III: Soft/Pureed Foods (Example #1)

| Time | Quantity | Foods | KCals/Protein |
|----------|-------------|--|---------------------------|
| 7:00 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 (500 mg) | Chewable calcium | U |
| 8:00 AM | 1/4-1/2 Cup | Cooked cereal (oatmeal) mixed with equal part skim milk | |
| | 1/4-1/2 Cup | Skim, Fortified, or fat free Lactaid milk | 56-110kcal / 3.25-6.5 pro |
| 9:00 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 | Chewable multivitamin | Ū |
| 10:00 AM | 4-8 oz. | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200 kcal / 12-15 pro |

(Continued on next page)

| Time | Quantity | Foods | KCals/Protein |
|----------|-----------------------------|--|-------------------------|
| 11:30 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 | Chewable multivitamin | 0 |
| 12:00 PM | 1/4-1/2Cup | Blended pea soup + scoop of Beneprotein (add 25 calories, 6 grams of protein) | 20.90/col / 2.4 pro |
| | 1 large egg + Iowfatmayo | Egg salad with 1 tbsp low-fat mayo | 20-80 kcal / 2-4 pro |
| 2:30 PM | 1/4-1/2Cup | Lowfatricotta cheese with 1 tsp cinnamon | 0 |
| 3:00 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 | Chewable multivitamin | 0 |
| 5:30 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 (500 mg) | Chewable multivitamin | 0 |
| 6:00 PM | 1-3 oz. | Soft well-mashed fish with lowfat mayo | 90-175 kcal / 7-14 pro |
| | 1/4 Cup | Pureed/soft vegetables - green beans | 90°175 Kcal/ 7°14 più |
| 6:30 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 | Chewable multivitamin | 0 |
| 9:00 PM | 4-8oz. | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200kcal / 12-15 pro |
| 9:30 PM | 4-8oz | Non-carbonated, decaf, sugar-free drink | 0 |

Bariatric Post-Op Days 14-60: Bariatric Phase III: Soft/Pureed Foods (Example #1 continued)

TOTALS: Fluid: 42 ounces; Protein: 50-80 grams; Calories: 560-960

| Time | Quantity | Foods | KCals/Protein |
|----------|-------------|--|--------------------------|
| 7:00 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 (500 mg) | Chewable calcium | 0 |
| 8:00 AM | 1/4 Cup | Unsweetened applesauce | 56-110kcal/3.25-6.5 pro |
| | 1/4-1/2 Cup | Non-fat cottage cheese | 40-80 kcal / 7-14 pro |
| 9:00 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 | Chewable multivitamin | 0 |
| 10:00AM | 4-8oz. | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200 kcal / 12-15 pro |
| 11:30 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 | Chewable multivitamin | Ū |
| 12:00 PM | 1/4-1/2 Cup | Blended black bean soup + scoop of Beneprotein (add 25 calories, 6 grams of protein) | 60-120kcal/3-6 pro |
| | 1/4 Cup | Tunafish with lowfat mayo | 55-100 kcal / 10-20 pro |
| 2:30 PM | 1/4-1/2 Cup | Blended black bean soup + scoop of Beneprotein (add 25 calories, 6 grams of protein) | 40-80 kcal / 7-14 pro |
| | 1 | Sugar-free popsicle | |
| 3:00 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | |
| | 1 | Chewable multivitamin | 0 |
| 5:30 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 (500 mg) | Chewable Calcium | |
| 6:00 PM | 1-2 oz. | Crockpot lemon pepper chicken | 50-100 kcal / 8-16 pro |
| | 1 | Mashed potatoes with skim milk | 90 kcal / 5 pro |
| 6:30 PM | 4-8oz. | Non-carbonated, decaf, sugar-free drink | |
| | 1 | Chewable multivitamin | 0 |
| 9:00 PM | 4-8oz | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200kcal / 12-15 pro |
| 9:30 PM | 4-8oz | Non-carbonated, decaf, sugar-free drink | 0 |

Bariatric Post-Op Days 14-60: Bariatric Phase III: Soft/Pureed Foods (Example #2)

TOTALS: Fluid: 42 ounces; Protein: 65-105 grams; Calories: 570-1090

Bariatric Post op Day 60+: Bariatric Phase IV: Maintenance Diet (Regluar Textured Foods)

- Add 1 new food item at a time. Start slow 1-2 Tbsp. at first and advance as tolerated. You need to listen to your new stomach to determine your level of fullness.
- Spend no more than 20-30 minutes when consuming meals.
- Focus on protein first at meals. Do not add other foods from the menu if your new stomach feels full.

Bariatric Post-Op Days 60+: Bariatric Phase IV: Maintenance Diet (Example #1)

| Time | Quantity | Foods | KCals/Protein |
|----------|------------|--|--------------------------|
| 7:00 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 (500 mg) | Chewable calcium | 0 |
| 8:00 AM | 1/4 Cup | Hard boiled egg (or scrambled) | 80 kcal / 6 pro |
| | 1/2Piece | Wholewheat to ast with 1/2 tbsp margarine | 50 kcal / 2 pro |
| 9:00 AM | 4-8oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 | Chewable multivitamin | 0 |
| 10:00AM | 4-8oz. | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200 kcal / 12-15 pro |
| 11:30 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 | Chewable multivitamin | 0 |
| 12:00 PM | 2 oz. | Tuna, canned in water | 65 kcal / 14 pro |
| | 1/2 tbsp | Light mayonnaise | 25 kcal /0 pro |
| | 3 | Fat-free saltines | 60 kcal / 2 pro |
| | 1 medium | Tomato, sliced thin | 22 kcal / 0 pro |
| 2:30 PM | 1/4-1/2Cup | Lowfat cottage cheese | 40-80 kcal / 7-14 pro |
| | 2 pieces | Canned pears (No sugar added, in natural juice) | 30 kcal / 0 pro |
| 3:00 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | |
| | 1 | Chewable multivitamin | 0 |
| 5:30 PM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 (500 mg) | Chewable Calcium | 0 |
| 6:00 PM | 1-2 oz. | Chicken thigh, roasted, cut into small pieces | 120 kcal / 14 pro |
| | 1/4 Cup | Green peas and carrots, steamed and cut up | 40 kcal / 2 pro |
| 6:30 PM | 6 oz. | Non-carbonated, decaf, sugar-free drink | <u>^</u> |
| | 1 | Chewable multivitamin | 0 |

| 9:00 PM | 4-8oz | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200kcal / 12-15 pro |
|---------|-------|--|-------------------------|
| 9:30 PM | 4-8oz | Non-carbonated, decaf, sugar-free drink | 0 |

TOTALS: Fluid: 58-72 ounces; Protein: 70-85 grams; Calories: 760-970

BariatricPost-OpDays60+:BariatricPhaseIV:MaintenanceDiet(<u>Example#2</u>)

| Time | Quantity | Foods | KCals/Protein |
|----------|-----------------|--|-------------------------------------|
| 7:00 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 (500 mg) | Chewable calcium | 0 |
| 8:00 AM | 1/4 Cup | Scrambled egg | 80 kcal / 6 pro |
| | 1 Slice (1 oz.) | Lowfat mozzarella cheese (part skim milk) | 35 kcal / 3.5 pro |
| | 1 tbsp. | Salsa | 5 kcal / 0 pro |
| 9:00 AM | 4-8oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 | Chewable multivitamin | 0 |
| 10:00AM | 4-8oz. | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200 kcal / 12-15 pro |
| 11:30 AM | 4 oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 | Chewable multivitamin | 0 |
| 12:00 PM | 1/2 Cup | Lentil Bean Soup | 65 kcal / 4 pro |
| | 1/2 tbsp | Light mayonnaise or mustard | 25 kcal /0 pro |
| | 1-2 Slices | Deli turkey or ham | 55 kcal / 10 pro |
| | 1-2 | Romaine lettuce leaves | 2 kcal / 0 pro |
| 2:30 PM | 1/4-1/2Cup | Lowfat yogurt | 35-70 kcal / 3.5-7 pro |
| | 1/2 medium | Banana | 50 kcal / .5 pro |
| 3:00 PM | 4-8oz. | Non-carbonated, decaf, sugar-free drink | |
| | 1 | Chewable multivitamin | 0 |
| 5:30 PM | 4-8oz. | Non-carbonated, decaf, sugar-free drink | 0 |
| | 1 (500 mg) | Chewable Calcium | 0 |
| 6:00 PM | 2 oz. | Tilapia (fish), baked with 2 tbsp. mango or regular salsa | 70kcal/14pro |
| | 1/4 Cup | Baked potato, mashed with part skim shredded cheddar cheese (1 oz.) | 30 kcal / .5 pro 50 kcal / 7 pro |
| | 2-4 tbsp. | Green beans, soft | 10 kcal / 0 pro |
| 6:30 PM | 6 oz. | Non-carbonated, decaf, sugar-free drink | |

| | 1 | Chewable multivitamin | 0 |
|---------|-------|--|-------------------------|
| 9:00 PM | 4-8oz | Protein shake OR Lactaid/Skim milk + 1 scoop Beneprotein /2 tbsp nonfat dry milk powder | 115-200kcal / 12-15 pro |
| 9:30 PM | 4-8oz | Non-carbonated, decaf, sugar-free drink | 0 |

TOTALS: Fluid: 58-72 ounces; Protein: 750-85 grams; Calories: 750-950

• Vitamin and mineral supplement schedule will vary based on individual plan set with dietitian

Concentrated Sweets: Limit or Avoid

Ice cream Regular soft drinks Chocolate milk Lemonade Pudding Kool Aid Sweetened, fruited or frozen yogurt Sugared ice tea **Dried fruits** Snapple or fruit drinks Canned or frozen fruits in syrup Table sugar Fruit juice Honey Sugar coated cereal Candy Doughnuts **Regular Jell-O** Popsicles Sugar gum Cakes Molasses Pies Syrups Cookies Sherbet / Sorbet Jellies Jam

Recipes

https://www.bariatriceating.com/bariatric-recipes.html

http://www.wlsdailyplate.com/

https://www.unjury.com/blog/recipes/

https://karenmangum.com/category/bariatric-friendly/ (select recipes under bariatric friendly section of the website)

https://www.bariatricfoodie.com/recipe-index/

Phase II: Full Liquid Diet Recipes

Jell-O[®] (UNJURY)

Ingredients

- 2 packets or 2 scoops UNJURY® Unflavored
- 1 Box (Small) Jell-O Original Gelatin (any flavor, sugar free)
- 2 Cups Water (divided into 2 parts)

Instructions

- 1. Boil 1 cup of water in pot.
- 2. Add in contents of Jell-O[®] packet and stir until dissolved.
- 3. Set aside to cool.

4. In a bowl, combine 1 cup of cold water and UNJURY[®] (1 packet or scoop at a time), stirring until well mixed.

5. Once Jell-O[®] has cooled to 140 F or below, add it to the bowl with the UNJURY[®] mixture. Stir until well combined.

6. Place bowl in refrigerator to chill for 2 hours.

*For added flavor, try using UNJURY® Strawberry Sorbet with Lemon JELL-O®.

Strawberry Applesauce (UNJURY)

1/3 packet or 1/3 scoop UNJURY® Strawberry Sorbet

1/2 cup Unsweetened Applesauce

Measure unsweetened applesauce into a bowl. Add UNJURY® and mix until well combined

*For plain applesauce, try it with UNJURY® Unflavored.

Chocolate PB2 Shake (UNJURY)

- 1 Packet or 1 scoop UNJURY® Chocolate Classic or Chocolate Splendor
- 1 cup skim milk
- 1 Tablespoon Bell Plantation PB2® Powder
- 1/2 Cup Ice

Place all ingredients into a blender. Blend until all ice is crushed and the consistency is smooth.

Vanilla Greek Yogurt (UNJURY)

1 packet or 1 scoop UNJURY® Vanilla

34 cup Plain Fat-Free Greek Yogurt

Add UNJURY® to Greek yogurt. Mix until well incorporated.

- For added flavor, try it with UNJURY® Chocolate or UNJURY® Strawberry Sorbet.
- For a longer lasting sweet treat, try freezing it!

Berry Full of Protein Pops (UNJURY)

2 Packets or 2 scoops UNJURY® Unflavored

1 Box (small) Jell-O[®] Lemon Gelatin (sugar-free)

1 Cup Boiling Water

1 Cup V-8 V-Fusion Light Acai Mixed Berry Juice

Boil water in pot.

Add in contents of Jell-O[®] packets and stir until dissolved. Set aside to cool.

In a bowl, combine V-8 juice and UNJURY® (1 packet or scoop at a time), stirring until well mixed.

Once the Jell-O[®] has cooled to 140 F or below, add the juice-and-Unjury mix to the pot. Mix all together until well combined.

Place six 3-ounce paper cups (or popsicle molds) onto a plate.

Ladle final mixture evenly into the paper cups or molds.

Place Popsicle sticks in center of each cup or mold.

Put plate of popsicles into the freezer. Let freeze for 4 hours.

Once popsicles have frozen, peel away the paper cup and enjoy.

Phase III: Soft/Pureed Diet Recipes

- Ideas: Pouch or canned tuna finely mashed with a small amount of 'light' mayonnaise and/or low-fat/low-sugar salad dressing; add a few drops of water so that mixture is fairly loose and not gummy.
- Pureed pinto beans stirred with one Tbsp. of shredded cheese, warmed in microwave.
- Part skim ricotta cheese, with a spoonful of a very low sugar spaghetti sauce and shredded mozzarella, warmed in microwave (Read labels; Classico[®], Barilla[®], & Gia Russo[®] all do not have sugar or high fructose corn syrup in their ingredient list). Choose flavors with the least sugar grams per 2 tablespoon serving.
- A good quality canned soup such as Progresso® Black Bean or Lentil pulsed in the blender or food processor (don't choose a high carb flavor containing pasta or rice).
- Tilapia fish filet, poached in tomato juice or chicken broth; finely mashed with a little of the inside of a baked potato.
- An egg poached or simmered in very low sugar spaghetti sauce.
- Light plain yogurt blended with mashed banana and sweetened with Splenda. Light plain

Make-Ahead High Protein Oatmeal (Pasdera)

Servings: 4

Prep time: 10 min

Cook Time: Varies

Ingredients

1 c steel-cut oats

1 c. unsweetened applesauce

11/2 tsp ground cinnamon

1/2 cup milk

4 scoops unflavored whey protein powder*

Instructions

1. Cook 1 cup of steel cut oats per the package instructions

2. After the oats are full cooked, allow to cool in the pot for 30 minutes, stirring occasionally. Then mix in applesauce, cinnamon, milk and whey protein powder

3. Divide into four portions and refrigerate. The oatmeal may look a little thin, but, will thicken overnight. Eat cold or reheat in the microwave.

CWLS dietitians recommend for ideas on additional flavor in each serving add a tablespoon of pumpkin puree, bananas, or powdered peanut butter.

*4 scoops of protein powder = approximately 6 tablespoons. Flavored protein powder may also be used

Easy Egg Salad (Finn)

Ingredients

2 hard-boiled eggs, chopped or mashed

2 tsp. plain Greek yogurt

1 tsp. low fat mayonnaise

1 tsp. pickle juice

1/4 tsp. prepared yellow mustard

Instructions

Stir together all ingredients except eggs. Fold eggs into yogurt mixture and add salt and pepper to taste.

Tangy Lemon Cod (Knopp)

Ingredients

2 fresh cod fillets (or other flaky white fish)

1 fresh lemon (will use both the juice and the zest)

1 tbsp. minced herbs of choice or other dried herbs

1 garlic clove, minced (optional)

Freshly ground black pepper and salt to taste

Instructions:

1. Preheat oven to 350°F. Spray the bottom of a glass baking pan or cookie sheet that has sides with non-stick spray. Arrange the cod pieces so they are side by side but not overlapping. Sprinkle with salt and pepper.

2. Using a zester or fine grater, zest the entire surface of the lemon. Set aside in a small bowl.

3. Squeeze the fresh juice from the lemon, remove seeds, and pour over the fish pieces.

4. Add pepper, lemon zest, and seasonings of choice to fish

5. Bake 20-30 minutes, until the flesh turns from a pink to white color, and the flesh flakes easily.

Spaghetti Squash Au Gratin (Watson)

Servings: 8

Prep Time: 20

Cook Time: 25

Ingredients

1 medium spaghetti squash

3 tbsp. butter

1 small onion, thinly sliced

¼ tsp. garlic powder

³/₄ c. light Greek yogurt

1 c. low fat shredded cheese

Salt and pepper to taste

Instructions:

1. Preheat oven to 375° F.

2. Cut the spaghetti squash in half and remove the seeds (tip: microwave spaghetti squash for 3-4 minutes to help soften it to cut).

3. Place spaghetti squash in a dish with $\frac{1}{2}$ inch of water and microwave for 10-14 minutes, until fork tender.

4. In a medium skillet over medium heat, add butter, onion, red pepper flakes, garlic powder, salt and pepper and cook until the onions are brown in color.

5. Using a fork, scrape out the inside of the spaghetti squash and transfer to a mixing bowl.

6. Add sautéed onions, Greek yogurt and half the cheese to the squash. Mix well.

7. Transfer mixture to a baking dish sprayed with cooking spray and top with remaining cheese.

- 8. Bake at 375° for 20-25 minutes.
- 9. Broil for the last 2-3 minutes until golden brown on top.

Broccoli Egg and Cheese Bake ("Broccoli")

- SERVINGS: 8
- Ingredients
- 6 large eggs
- 4 ounces light margarine
- 1/2 pound low-fat cheddar cheese
- 6 tablespoons flour
- 2 pounds nonfat cottage cheese
- 10 ounces frozen, chopped broccoli (thawed)
- 1 teaspoon salt
- 1 dash black pepper
- 1dash paprika (optional)
- 1 4-ounce jar chopped pimento (optional)
- 1/2 cup sliced mushrooms, fresh or canned (optional)

Instructions:

- 1. Preheat oven to 350 degrees.
- 2. Combine all ingredients.
- 3. Spray 2-quart casserole dish with cooking spray.
- 4. Place combined ingredients in prepared pan and bake for 90 minutes.
- 5. Serve hot

CWLS dietitians recommend trying this recipe at around 1 month post surgery.

Bariatric Phase III Lemon Pepper Chicken

Recipe developed by Ginger Caris RD, LD, Martha Gonzalez RD, LD, and Leah Herbert RD, LD

Serving size 2TBSP to ¼ cup Prep Time: Less than 5 minutes

Cook Time: 5 minutes

Ingredients

1 (4.5oz) canned chicken ¼ cup- ½ cup broth ¼ tsp lemon pepper seasoning Dash of garlic powder Dash of onion powder Add more seasonings to desired taste

Instructions:

- 1. Empty contents of canned chicken into sauce pan
- 2. Mash chicken with a fork to separate chunks.
- 3. Cook on low to medium heat until desire temperature. Stir chicken well.

Phase IV: Maintenance Diet Recipes

Fiesta Mini Meatloaves (Rezentes)

Servings: 6

Prep Time: 45

Cook Time: 25

Ingredients

- 1lb. 93% lean ground beef
- 1 can low-sodium black beans, rinsed and strained
- 1 can diced tomatoes and green chilies, drained
- 1 red bell pepper, chopped
- 1 green bell pepper, chopped
- 1 onion, chopped
- 3 tbsp. fiesta lime seasoning (ok to use more for bolder flavor)
- Non-stick cooking spray
- Optional: 2% milk cheese, plain Greek yogurt, salsa, avocado slices

Instructions:

- 1. Spray a muffin tin with non-stick cooking spray.
- 2. Preheat oven to 350°F.
- 3. In a large bowl, mix ground beef, bell peppers, onions, can of diced tomatoes and green chilies, and fiesta lime seasoning.
- 4. Gently fold in black beans (to avoid smashing beans).
- 5. Scoop mixture into muffin tin sections.
- 6. Bake for 20-30 minutes, or until your meat thermometer reaches the safe minimum cooking temperature of 160 F for beef.
- 7. Top with choice of optional ingredients and enjoy!

Taco Casserole (Keeth)

Servings: 9

Prep Time:30

Cook Time: 35

Ingredients

1 lb. ground turkey
1 small zucchini, diced
1 small yellow onion, diced
1 pkg. taco seasoning
1 10oz. can black beans, drained and rinsed
1 8oz can tomatoes & chilies
2 cups Mexican blend cheese

Instructions:

1. Preheat the oven to 350°F

2. Spray a pan with non-stick cooking spray, set it over medium heat and allow it to get hot. Sautee zucchini, onion with garlic until they are soft. Drain any excess liquid and transfer to a bowl.

3. Brown ground turkey meat, drain and then transfer mixture to a 13 x 9 casserole dish.

4. Mix in taco seasoning thoroughly and then transfer mixture to a 13x 9 casserole dish.

5. Evenly spready out fat free refried beans on top (this may be easier if you heat them in a microwave safe bowl for a minute or so).

6. Top with cheese and then bake for about 30 minutes or until the cheese is melted and slightly browned.

7. Cool 10-15 minutes before slicing and serving.

CWLS dietitian tip with this recipe: to make this recipe vegetarian, use meatless veggie crumbles. Add/substitute vegetables based upon your preference.

Easy Low Carb Lasagna (Tai)

Servings: 12

Prep Time: 20

Cook Time: 65

Ingredients

32oz. low fat ricotta or cottage cheese

1 tsp. garlic powder

1tsp. dried oregano leaves

4-5 low carb tortillas

2-24oz jars marinara sauce

1c. lite mozzarella cheese, shredded

Instructions:

1. Preheat oven to 350°F

2. Mix ricotta and seasonings in bowl.

3. Layer lasagna in this order in a 9 x12 pan: sauce, tortillas, ricotta filling. Repeat. End with sauce on top, then sprinkle with mozzarella cheese.

4. Cover the lasagna with foil and bake for one hour in the oven or until heated through. Allow lasagna to stand for 5 minutes, then cut into 12 squares and serve hot.

CWLS dietitians recommend for a nutrition boost to add more non-starchy vegetables of your choice to this dish!

Slow-cooker Provencal Chicken ("Slow-cooker")

Servings: 4

Ingredients:

2 boneless, skinless chicken breast halves, cut in half lengthwise (about 1 1/2 pounds)

2 teaspoons dried basil

1/4 teaspoon salt

1/4 teaspoon black pepper

1 cup diced yellow bell pepper

- 1 16-ounce can navy beans, rinsed and drained
- 1 14 1/2-ounce can diced tomatoes, undrained

Fresh or dried basil leaves (optional)

Directions:

1. Place chicken in an electric slow cooker or crockpot.

2. In a large bowl, combine salt, black pepper, bell pepper, beans, tomatoes and dried basil (if using fresh basil, add at the end); stir well.

- 3. Spoon mixture over chicken.
- 4. Cook on low setting for 4-6 hours, or until chicken reaches 165 degrees.
- 5. Serve each chicken breast half with bean and tomato mixture spooned over the top.
- 6. Garnish with fresh or dried basil leaves, if desired.

Crunchy Tuna Patty ("Crunchy")

Servings: 8

(Mayo Clinic) Dietitians tip: These crispy tuna patties are great served with a squeeze of lemon and a dollop of fat-free Greek yogurt.

Ingredients:

4 3-ounce cans tuna in water

- 4 egg whites
- 16 Wheat Thins crackers, crushed
- 1/4 cup grated carrot
- 1/4 cup chopped water chestnuts, capers or diced red pepper
- 1 tablespoon minced onion, if tolerated
- Pepper, dill and dried mustard, to taste

Directions:

- 1. Mix all ingredients together.
- 2. Form mixture into eight patties with hands.
- 3. Spray medium skillet with nonstick cooking spray and place over medium heat.
- 4. Cook patties until golden brown on both sides, 2 to 3 minutes per side.

Works Cited

Deliciously Healthy! Recipes from Around the Country. Gainesville, FL: ASMBS Foundation, 2017. Print.

Finn, MS, RD, LDN, Tesa. "Easy Egg Salad." Recipe. Deliciously 107.

Keeth MSN, ACNP-BC, CNS, CCRN, CBN, Stephanie. "Taco Casserole." Recipe. Deliciously 20

Knopp, RD, Kim. "Tangy Lemon Cod." Recipe. Deliciously 35.

Pasedera RDN, Lindsay. "Make-Ahead High Protein Oatmeal." Recipe. Deliciously 121.

Rezentes, MS, RD, LD, Allison, "Fiesta Mini Meatloaves." Recipe. Deliciously 59.

Tai, Florence. "Easy Low Carb Lasagna." Recipe. Deliciously 65

Watson, RD, LD, Lauri "Spaghetti Squash Au Gratin." Recipe. Deliciously 63.

"Broccoli Cheddar Bake." Recipe. Bariatric Surgery Recipes. © [2014] Mayo Foundation for Medical Education and Research. All Rights Reserved. 2014. Web. 18 April 2022. <mayoclinichealthsystem.org>

"Crunchy Tuna Patty" Recipe. Bariatric Surgery Recipes. © [2014] Mayo Foundation for Medical Education and Research. All Rights Reserved. 2014. Web. 18 April 2022. <mayoclinichealthsystem.org>

"Slow-cooker Provencal Chicken." Recipe. Bariatric Surgery Recipes. © [2014] Mayo Foundation for Medical Education and Research. All Rights Reserved. 2014. Web. 18 April 2022. <mayoclinichealthsystem.org> Unjury® Recipes For Success. Sterling, VA: ProSynthesis Laboratories, Inc. ® Print

"Berry Full of Protein Pops." Recipe. Unjury® 55.

"Chocolate PB2 Shake." Recipe. Unjury® 14.

"Jell-O[®]" Recipe. Unjury[®] 56.

"Strawberry Applesauce." Recipe. Unjury[®] 42.

"Vanilla Greek Yogurt." Recipe. Unjury® 41.