WEIGHT LOSS SURGERY PREPARATORY GUIDE

A comprehensive preparatory guide for patients undergoing weight loss surgery





The Institute for Advance Bariatric Surgery @ MISH MBSAQIP Accredited Center 10951 Lakeview Avenue Lenexa, Kansas 66219 (913) 322-7401 www.MISHhospital.com It is crucial that patients considering or pursuing weight loss surgery are well informed about the care they receive and the role they play in reaching and maintaining optimal surgical outcomes. This guide contains resources for educating the metabolic and bariatric surgical patient about various aspects of the preoperative, perioperative and postoperative process.

Important Contact Information

Surgeons:	
Dr. Wanda Kaniewski	913-322-7401
Dr. Paramjeet Sabharwal	913-322-7401
Hospital:	(after hours leave a message for the doctor on call, and don't forget to leave your telephone number. If we do not respond within 20 minutes call back or call the hospital).
Minimally Invasive Surgery Hospital	913-322-7408

If you believe you are experiencing any problems or difficulties related to your operation please call us immediately regardless of where you are or how long ago you had your operation.



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Preparing for Surgery

Patient Education

The most important part of the process to successful weight loss surgery is EDUCATION.

Reducing surgical risk and getting into the best possible health prior to surgery can significantly improve safety and complications. Understanding what weight loss surgery can offer and how to use the "TOOL" after surgery significantly improves weight loss success.

A very good first step to education is to watch our weight loss surgery information seminar on line - "SEMINAR REGISTRATION".

The next step would be to attend the Rules Class Support Group on site or you can listen in. The class support group is also offered as a webinar. Please access our website for the schedule and link to join the webinar.

Many patients repeatedly found the seminar and rules class support group very helpful in deciding if weight loss surgery was the right decision for them. The resources available on the website under the "WEIGHT LOSS SURGERY" tab offers a lot more additional information. Every patient should learn about obesity and weight loss surgery, to include. :

- \Rightarrow Health Risks associated with obesity
- \Rightarrow Types of weight loss surgery
- \Rightarrow Risks and benefits of each type of operation
- \Rightarrow Impact of weight loss surgery on your emotional health and family
- \Rightarrow Potential complications in the post-op period and beyond
- \Rightarrow Strategies to reduce your risk for surgery such as:
 - Weight loss
 - o Exercise
 - Treatment of sleep apnea
 - Cessation of smoking
 - Cessation of birth control / hormones
 - Deep vein thrombosis prevention
 - Cardiac and Pulmonary function screening/tunning
 - o Medication review
 - Involvement of behavioral health support

Surgeon Consult

Once you have decided to pursue surgery as an option to lose weight you must make an appointment to meet with the surgeon. To make the appointment productive:

- \Rightarrow Pre-pare a list of questions
- \Rightarrow Bring someone with you (a second set of ears)
- \Rightarrow Bring medical records that you think may be helpful
- \Rightarrow Bring a list of all of your medications

Once you have completed the consultation several things will go into motion:

- $\Rightarrow\,$ A medical work-up list will be generated. The work-up will need to be completed before a final determination can be made
- $\Rightarrow~$ Your insurance will determine what other work-up will be required to obtain pre-authorization for surgery
- ⇒ Once the required information for your insurance pre-authorization is complete we will obtain the insurance pre-authorization

⇒ Once your medical work-up is complete your second office visit will be scheduled to prepare you for your day of surgery

Medical Work-Up

Your medical work-up will be determined at the time of your initial consultation with the surgeon. The intensity of the work-up will depend on your health. The reason for the work-up is to make surgery as safe as possible and reduce any potential complications peri-operatively. During the work-up new medical problems or concerns may arise that will also need to be addressed before you are cleared for surgery. You may also need to see other doctors in different specialties to help clear you for surgery.

Vitamins

Vitamins can be an important step of preparing for surgery. We would like you to start taking vitamins before surgery. Also refer to your diet guide for detailed information about which vitamins we would like you to be taking.

- \Rightarrow Start taking multivitamins once daily to improve your general health and restore any vitamin deficiencies.
- \Rightarrow Take 500 mg of Calcium two 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, compliance is better after surgery.

Exercise

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 with weight loss 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. JUST 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 or pedometer walking App is a recommended purchase to keep you informed and motivated with 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 condition your breathing, but are not weight bearing and are therefore easier for people who have joint problems.

Skin Care

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. An antibiotic soap is recommended (example: Dial soap or Hibiclense). If you have any open lesions, ulcers or non-healing wounds please inform your surgeon so they can be addressed before surgery.

Medicines

Aspirin/NSAIDS

Prior to surgery it is important to avoid aspirin and all aspirin-containing medicines, as well as NSAID's (Non-Steroidal Anti-Inflammatory Drugs) for at least 10 days prior to surgery (*Examples: Aspirin, Excedrin, Ecotrin, Bayer, Motrin, Ibuprofen, Aleve, Naprosyn, Advil, Nuprin, Rufen, Indomethicin, Relafen, Anaprox, Celebrex, Voltaren, Arthrotec, Dolobid, Lodine, Mobic, Daypro, Feldene, Vioxx, Clinopril, and Bextra).* 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 read the label.

Hormones

If you are taking Replacement Hormones or Birth Control Pills we will need you to stop them a month before your surgery. Stopping these drugs will help reduce your risk for developing blood clots in your legs. After surgery we recommend not restarting for 1 month to reduce clot risk.

Anticoagulants/Steroids

If you are taking Coumadin, or Steroids (Prednisone, Advair, Solumedrol), or other Anti-Coagulating Agents (Plavix, Lovenox, Heparin) arrangements will have to be made to stop them before your surgery date. When you visit with the surgeon this will be discussed with you at length. These drugs either prevent clotting or hinder the bodies ability to heal.

Herbs/Over-the-counter/Vitamins

When you arrive for your appointments always bring a full list of all your medications including: herbal meds, vitamins, and any over the counter medication.

Home Medications

Always bring a list of all the medications you take at home. This will help to ensure we know all your medications, and we can review your medications for any problems with weight loss surgery. Please also note below about the impact weight loss surgery may have on your ability to take medications.

Medications and weight loss surgery

A word about taking medications after weight loss surgery.

Many of our patients are on several medications and many of these meds will need to be continued after surgery. After weight loss surgery, particularly with the cutting operations, you may have significant difficulty and not be able to take your med easily. Size of the pill is not the only problem it is also taste. Many meds taste bitter and have a strong taste that can cause significant nausea in a patient early after surgery and as a consequence trigger vomiting and/or retching. Early after surgery the patient has to avoid heaving and retching.

The weight loss operation will likely force you to take one med at a time. Often when the med is large (ex. vitamin size) those meds will need to be cut or crushed for you to be able to swallow them, but be careful cut meds can taste bad and trigger heaving and retching. Please start thinking on how you will manage your meds after surgery. Talk with your pharmacist to ensure that you can cut or crush them. Also talk to your doctor that prescribes these meds about alternatives and options. Many extended release meds or capsules can not be cut. If the pill is large you may have difficulties and not be able to take the med. Meds can also be liquefied if necessary. Some are available in patch form.

Please have these discussions with your pharmacist and/or prescribing doctor in advance prior to surgery. Some medications should not be stopped, and you have to have a plan in place to take those medications despite the difficulties, to continue to manage your medical problems. Examples:

- A large 200 mg pill that would need to be cut may be taken as two smaller 100 mg pills instead.
- All meds now a days can be liquefied. Caution: many liquid meds are made very sweet. Very sweet is often a trigger for retching.
- A large daily extended release pill can be changed to a smaller twice a day pill.
- A different pill for the same medical problem may taste better

Alcohol and Tobacco

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 organs this impedes healing of staple lines. Patients are recommended 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), leaks at staple lines and connections



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. Access our website for resources and help to quit smoking.

Alcohol. Alcohol 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"*. For these reasons, we recommend complete abstinence from alcohol after surgery and avoiding frequent consumption thereafter. Active alcohol consumption in large quantities is a contraindication to weight loss surgery.

Work and Disability

Expected return to work time is about one week for Lap-Band patients, one to two weeks for a Sleeve, Bypass, DS or revision patient. 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, age, how badly your work needs you, how badly you need your work, 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, changing diet and losing weight at the same. You may have heard that someone went back to work full time in just a few days. We would, however, caution you not to rush back to full time work too quickly. The first week is a precious time to get your rest. If financially feasible, take this time to focus on your recovery.

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.

10 Day Liquid Diet

Most patients will be put on the 10 day liquid diet pre-operatively (please see 'Patient Forms" on website). This is a liver shrinking diet. A large liver obstructs the ability to perform surgery. The part of the stomach that we operate on is covered by the liver. Our patients livers are usually very large and hard. The 10 day liquid diet reduces the liver size and softens the liver. It is much easier to maneuver a smaller and softer liver out of the way, making it possible to perform the operation and making the operation safer. The diet is 90% liquid and very, very low in sugar.

Diet Guides

In addition to reading the surgery preparatory guide we strongly recommend that you start reading the specific diet guide for your weight loss operation. Please access our website to download the appropriate diet guide specific to your operation. The diet guide discusses nutrition, and explains your diet before and after surgery and what you need to do to prepare. It is also very rich in what we have learned from our patients about these operations, and it covers the vitamins that you will be required to take after your operation.

If you are ill before surgery

Should you develop a cold, persistent cough, fever, skin breakdown/infection 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

Your Hospital Pre-Admitting procedure will be greatly simplified compared to other hospitals. The preadmission testing and most of the registration has been already completed for you thru our office. A preoperative visit to the hospital is scheduled as part of your pre-op office visit. Specific registration, patient information and permission forms that will be required for you to sign can be completed on the day of your surgery. The Minimally Invasive Surgery Hospital is located on the same premises as the clinic.

Pre-Op Nurse Phone Call

The week prior to your surgery the nurse will call you. The nurse will inform you about the time that you will need to arrive to the hospital and the time of your operation. She will also go thru a list of questions and reminders for example:

- Do not eat or drink after midnight the night prior to your surgery
- Bring all your medications with you
- If you have a CPAP or BIPAP to bring your mask and tubing with you to the hospital
- Females will be asked to provide a urine specimen for a pregnancy test on arrival (do not void prior)
- Wear lose fitting clothing
- Do not bring any valuables
- Did you obtain a copy of the Diet Guide for your operation?
- Did you find your protein supplements?
- Did you get your blue/purple food coloring dye
- Have you reviewed your medications with the pharmacist and/or doctor to ensure that they can be cut if necessary and/or for alternatives?
- To stop taking aspirin and NSAID prior to surgery
- To stop taking anticoagulants before surgery and if temporary anticoagulant is needed
- If you have a living will or advance directive those will need to be provided on arrival
- A responsible adult will have to drive you home from the hospital
- Bring a carry case for your dentures and contacts lenses
- Will any special mobility aids be required?
- Are there drug allergies that we need to be aware of?
- Any communication aids that will be needed

At this time any further questions you may have may also be answered, and any special requests or needs should be addressed.

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. 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:

- \rightarrow This guide and the diet guide
- \rightarrow Small overnight bag with toiletries such as toothbrush and toothpaste, soap, shampoo, lotion and contact lens case and solutions
- → Bathrobe
- \rightarrow cell phone / i-pad
- \rightarrow Lip balm
- → Comfortable, loose-fitting clothes to go home. Clothes that are easily removed and easy to slip on are best.
 - Safe comfortable shoes

All your Home Medications

CPAP or Bi-PAP mask and tubing

The ride home

Upon discharge from the hospital someone will need to pick you up from the hospital to take you home. Please make arrangements for a ride home. We cannot send you home in a Taxi.

Follow-Up

On your way out the hospital you will be asked to make follow-up appointments with your surgeon. Your appointments will be scheduled out in advance according to the follow-up schedule plane – when your next appointment is due you will get a call to schedule your follow-up. The surgeons want to see you twice in your first month after surgery to make sure you are doing well. The JP drain (if you have one) will be removed at your 1 week follow-up visit.

A long term follow-up schedule and lab testing schedule was given to you at the time of your first visit. You can also download it off our website at any time



Your Surgery Day

Personal Preparation

We recommend that you shower with Hibiclense soap or towels for 2 showers prior to surgery. It is best if done the night before surgery and the morning before surgery. The less time between the last two showers the better it works. In the morning on the day of surgery, please do not use any moisturizers, creams, and lotions. Avoid make-up and hairspray. Remove your jewelry and do not wear nail polish if possible. You may wear dentures, but you will need to remove them just prior to surgery, bring a cary case. Please bring your eye glasses and a case if possible. For contact lenses bring your solutions and storage case.

The HIBICLENS (4% Chlorhexidine (CHG)) Soap Shower: On the night of surgery before going to bed. Wet a fresh laundered wash cloth in the shower. Step out of the spray of the shower. Soak the washcloth with the CHG soap (1 ounce at a time). Scrub your body well for 5 minutes from the neck down, re-soaking the washcloth with CHG soap frequently till you have covered/scrubbed your whole body. The bottle should be empty when done. Allow 2 extra minutes for the CHG to work. Step back into the water spray - rinse the soap off. Dry with a fresh laundered towel, and wear a fresh laundered set of pajamas to bed with fresh laundered bed sheets to sleep on. Apply No deodorant, perfumes or lotions. Repeat the same the morning of your surgery.

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 reduce 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 overstressed. MISH is a MBSAQIP Accredited Center. Please see our website for more information about accreditation.

In general, the least serious problems occur more often and the more serious problems occur rarely. If a complication does arise, you, the surgeon, and the nursing staff will need to cooperate in order to resolve the problem. Some complications can involve an extended hospital stay and recovery period. Please access our website to learn more about risks and benefits of weight loss surgery.

Anesthesia

All weight loss surgery requires general anesthesia. When general anesthesia is used, you will be sound asleep and under the care of anesthesia 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 anesthesia team 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 during the operation.

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.

If you have a CPAP or BiPAP machine please bring it with you on the day of your operation.

Remember nothing to eat or drink after midnight (the night prior to your operation) except for a small sip of water to take your meds with as instructed by the surgeon.

Hospital Admitting Procedures

At Check-in, 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 carry case containers if possible.

You will be asked to sign an operative consent form, even though you may already have done so at your surgeon's office. Your signature indicates that the procedure has been explained to you, that you understand it, and that you have no further questions.

Please take active participation during patient verification. Staff will verify with you that you are the correct patient undergoing the operation and the correct operation is going to be performed.

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. Your family may also stay with you in the pre-op area till the time of surgery. If your family decides to stay for the duration of your surgery we will be glad to accommodate them in our lobby and the surgeon after the operation will inform them on how the operation went. Your family will be able to region you in on the patient nursing floor. Routinely family is not allowed into the recovery room.

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. Reading this preparatory guide as well as the content on our website will help relieve a lot of the stress that is associated with this type of surgery.

Once you enter the OR, the staff will do everything they can to make you feel secure. The nurses working with you in pre-op will also be assisting your surgeon during surgery. 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, anesthesia will connect you to monitoring devices.

After you are asleep, a urinary catheter may be placed into your bladder if you are undergoing a bypass, DS or revision operation. The surgical procedure will last about one hour for a Lap-Band, and two hours to three hours for a bypass, or DS. A revision operation will usually take longer, the length of the operation is dependent on the difficulty in creating a working space when a lot of scar is present.

Your surgical team will take excellent care of you! 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. It is common for patients to be drowsy and sometimes confused when they first wake up.

Your Hospital Stay

Recovery

The hospital stay for Bariatric Surgery averages one day. Most patients require at least one night in the hospital. Patients undergoing the laparoscopic method (the method we use) usually have a shorter hospitalization compared to traditional open surgery. When you return to your room after surgery, you will continue to be closely monitored by your nurse. 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 and oxygenation), 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, you should sit up and dangle your feet and then stand at your bedside first prior to walking right away. Once you feel you have your balance you will be asked to walk several times on the night of your operation. Yes, it will hurt, but each time you get out of bed it will get easier. Each day you will notice your strength and stamina returning, with less and less pain. After that, you will be required to walk frequently and to do your leg and breathing exercises hourly. Changing positions in bed, and walking promotes good circulation. Good blood flow discourages the formation of blood clots and enhances healing. The floor nurses will remind you to do so. 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.

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 an *"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 and hold it in
 - 2. Hold in your breath for at least two seconds
 - 3. Exhale completely
 - 4. Take a break
 - 5. Repeat the above steps three times
 - 6. Remember to cough. The cough should come from the abdomen, not from your throat. Hold your pillow on your abdomen for pain minimize.

Exercising your feet and legs is important for promoting good circulation to prevent blood clots.

- The proper way to exercise your feet and legs is to follow these steps:
 - 1. Point your toes toward the foot of the bed (like pressing down on a gas pedal).
 - 2. Point your toes up and over toward your head as far as you can go should feel discomfort in your calf muscle.
 - 3. Circle each foot at the ankle a few times.
 - 4. Repeat three times.

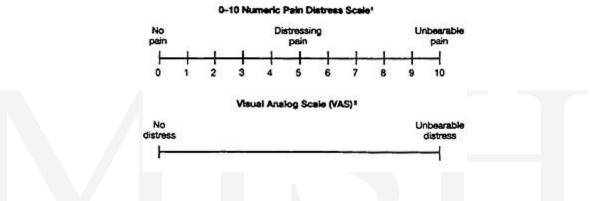
These exercises should be repeated at least once every hour after surgery.

Pain Control

You may feel pain where the incisions were made or from the positioning of your body during surgery. Some patients can experience left neck and shoulder pain after laparoscopy – trapping of gas under the diaphragm. 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 liquid 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. Two helpful ways to describe pain include the number scale (0 to 10 scale: 0= no pain, 10=the worst pain possible) or you can use words (none, mild, moderate, severe). Here are some examples of what the pain scales look like:



No matter which form of pain control you receive, PCA or liquid, 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 regularly.
- 5. The risk of becoming addicted to pain medicine is very low when it is used for a specific medical purpose, such as surgery.

Please see the "Safe Use of Pain Meds" guide on our website under "Patient Forms" for more information about pain medication and pain control.

Post-Operative Diet

At the hospital, you will be served clear liquids only.

Lap-Band patients. After the Band x-ray study (UGI) Lap-Band patients start the "Straw Test Diet" for the first 3 weeks and then the "No chew test" diet for the next 3 weeks. For more detailed information please see the Lap-Band Diet Guide and/or Post-Op Diet guide on our website under "patient forms".

Sleeve, Bypass, DS and Revision patients will be on a liquid diet for at least the first 2 weeks after surgery. Drinking difficulties post-op are not uncommon. It is important for these patients to understand that just

because it is difficult to drink it does not mean you should stop drinking. It is very important to take small sips and slowly. After this type of surgery a patient will no longer be able to drink normally. After surgery it is a big adjustment to consistently take small drinks all the time. Please download your specific Diet Guide for more detailed information off our website.

Most likely, you will not feel hungry after surgery. This is normal, no reason for concern and may last several months. However, it is very important to keep drinking water and eating 60gm of protein to prevent dehydration and malnutrition despite the fact that you are not hungry or thirsty.

There are three non-negotiable minimum diet requirements after surgery:

- 1. 64ounces of fluid daily
- 2. 60gms of protein daily
- 3. One Multivitamin daily

Going Home

Your date of discharge will be determined by your surgeon 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 doctor. Look in "Patient Forms" on our website for more information on discharge instructions.

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.

Always call for fever, unexplained shortness of breath, increasing pain, persistent nausea and/or vomiting, inability to keep fluids down or stay hydrated, chest pain, a fast heart rate, leg swelling and/or change in the JP drainage color or character.

Sleeve, Bypass, DS or revision patients will be required to perform a leak test daily. A leak test is performed every morning. The first glass of any liquid you are drinking, you will turn blue or purple with food coloring dye. After drinking the entire glass you will check the JP drain bulb for blue or purple dye. If there is no color change everything is OK. If you observe a color change please call the office for the doctor to determine if you need to come in.

Home Again

Checking in

We care about your progress. Keep in touch with us and with your surgeon. Your first 3 office follow-up visits with your surgeon should be scheduled for the following day after discharge from the hospital, then 7 days and 3 weeks after your surgery date. Please call your surgeon's office to make an appointment, or make one on your way out of the hospital. You will be seen by your surgeon periodically after that. Generally, your surgeon likes to see you every month during the first 6 months, then every 2-3 months for the second 6 months, then at 18 months and 24 months, and at least once a year thereafter. Please call your surgeon's office with any surgical concerns between scheduled visits. Don't leave your Primary Care Physician out of the loop – don't hesitate to contact him or her with medical concerns.

A detailed follow-up schedule is available on our website under "patient forms".

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 at the same time. Your activity will be restricted to no strenuous activity for 1 to 2 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 4 week office visit you should be walking regularly unless you have specific problems with your weight bearing joints. In the later case, water exercises are recommended. You can start water activities about two 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, and weak the first few weeks after surgery.

Do not drive a motor vehicle until you are off the prescription pain medicines, usually within the first week after your surgery. Use common sense when trying to determine you physical ability limits.

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.

Avoid sitting without moving for long periods. Change positions frequently while sitting, and walk around in lieu of sitting. These strategies will help prevent blood clots from forming in your legs. Climbing stairs is encouraged.

Remember to keep up your fluid, protein and vitamin intake. There are three non-negotiable **<u>minimum</u>** diet requirements after surgery:

- 1. 64ounces of fluid daily
- 2. 60gms of protein daily
- 3. One Multivitamin daily

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 weight loss surgery, you may need some help with hygiene. 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. You may shower with soap the next day after surgery, avoid tubs and soaking of any incisions.

Wound Care

Your wounds need minimal care. If sutures were used, they dissolve, so there is no need to remove any stitches. The transparent bandages called "Tegaderms" are applied to your wounds. You can shower with

these – after, pat dry over them instead of rub drying, they will last longer. We recommend removing them after 3 days. Leaving the wound open to air, whenever possible, helps prevent wound infection.

No matter how your wound was closed, it is important to keep the wound clean and dry to promote faster healing. You may shower only. After about two weeks, the incision is usually ready for immersion. Ask your surgeon for the official "go ahead" before you soak in a tub or pool.

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. You may shower your abdomen with any remaining Hibiclense soap while the incisions are healing.

Medical Concerns

Potential complications that can occur after bariatric surgery

Urgent Post-operative 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. Persistent nausea and/or vomiting.
- 5. Inability to stay hydrated
- 6. Fast heart rate (greater than 110 after resting)
- 7. Pain, redness, and/or swelling in your legs.
- 8. Urine output less than four times in 24 hours.
- 9. Pain that is unrelieved by pain medication
- 10. Change in JP drainage color or character
- 11. If you are not feeling right, or feel you are getting worse instead of better

Normal Symptoms

- 1. **Swelling and bruising** moderate swelling and bruising are normal after any surgery. ⇒ Severe swelling and bruising may indicate bleeding or possible infection.
- 2. **Discomfort and pain** mild to moderate discomfort or pain is normal after any surgery particularly at the incisions.

⇒ If the pain becomes severe and is not relieved by pain medication, please contact your surgeon.

- 3. **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 2 to 3 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 numbress.
- 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.
- 5. **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 15 when out in sunny weather.

Anastomotic/staple line leak

If an anastomotic leak occurs, it usually happens within the first few days of surgery and rarely after 2 weeks. Symptoms include tachycardia, worsening abdominal pain, leukocytosis, fever, and low urine output. Leaks occur after sleeve gastrectomy with a reported incidence rate of 1.06% and after Roux-en-Y gastric bypass (RYGB) with a reported incidence rate of 1.10%. The most common site for a leak is the proximal end of the stapler line near the gastroesophageal junction, or at the gastro-jejunal anastamosis. A CT scan with oral contrast or an UGI series can be used to investigate a leak.

Internal hernia

Internal hernia occurs when the bowel protrudes through one of the surgically created mesenteric defects. The creation of space with weight loss may contribute to internal hernia, which often presents in a delayed fashion and can result in small bowel obstruction, ischemia, or infarction. With presenting features that include abdominal pain, nausea, vomiting, and nonspecific gastrointestinal symptoms, diagnosis can be difficult. While abdominal X-ray (three views) may not show the classic air fluid levels because the obstruction is proximal, CT can reveal the subtle rotation of mesenteric vessels (whirl sign) that suggests an internal hernia. Although internal hernia occurs after RYGB with a reported incidence rate of 4.5%,[3] the risk can be reduced if the mesenteric defects are closed with running sutures.[4] Treatment for internal hernia is laparoscopic surgery with hernia reduction and defect closure.

Ulcer

Ulcers are common after bariatric surgery. To minimize the risk of ulcer formation and gastroesophageal reflux symptoms, a proton pump inhibitor (PPI) is prescribed at the time of discharge. Typically, sleeve gastrectomy patients use a PPI for 6 weeks and gastric bypass patients use a PPI for 6 months. If a patient has persistent reflux symptoms, a PPI may be used on a long-term basis. NSAID use is contraindicated after RYGB because of the increased risk of marginal ulcers between the stomach pouch and the Roux limb. NSAID use is also discouraged after sleeve gastrectomy because of ulceration risk and the limited opportunity for surgical intervention with the smaller gastric pouch.

Dumping syndrome

Dumping syndrome occurs when a meal is ingested and a hypertonic carbohydrate load empties rapidly into the small intestine. Symptoms include abdominal pain, cramping, vomiting, diarrhea, flushing, palpitations, tachycardia, and hypotension. These gastrointestinal and vasomotor symptoms result when excess insulin is produced in response to the rapid entry of food and fluids into the small intestine. Early dumping syndrome occurs less than 1 hour after eating with distention of the small bowel. Late dumping syndrome occurs 1 to 3 hours after eating with symptoms similar to those of low blood glucose levels. Dumping syndrome can usually be prevented and treated by avoiding simple carbohydrates and eating protein-based meals.

Gallstone formation

Gallstone formation can occur with rapid weight loss. A Swedish population-based study noted the increased incidence of cholecystectomy after bariatric surgery. While 8.5% of the study cohort underwent cholecystectomy with a standardized incidence ratio of 5.5, 3.2% of the cohort underwent emergency cholecystectomy with a standardized incidence ratio of 5.2. The study authors suggest that the increased incidence may be due to detection bias rather than an elevated risk of symptomatic gallstones. Nonetheless, biliary complications are more common after RYGB. Endoscopic retrograde cholangiopancreatography for common bile duct stones is a very difficult procedure after RYGB because access to the duodenum through the mouth is not easy with the partition in the stomach. Concurrent cholecystectomy may be recommended for select patients.

Postsurgery adjustments

Patients must be prepared to make adjustments and listen to what their operation is restricting them from being able to do. It will be hard to drink and eat, but you still must get your fluids and nutrition in. For many this can be hard to do in the very beginning.

Constipation management

Constipation is experienced by many patients after bariatric surgery. Ideally, patients will drink small amounts of water frequently to ensure adequate hydration, which requires more than 1.5 L/day PO. Prune juice, docusate, and polyethylene glycol (PEG) laxative are recommended to treat and prevent constipation.

Medication use

Postsurgical weight loss will alter water and fat body composition and change the absorption and distribution of drugs in the patient's system. In addition, a restrictive procedure such as sleeve gastrectomy may change gastric emptying time, pH, and mucosal exposure. Patients who undergo a procedure such as Roux-en-Y gastric bypass, which has both restrictive and malabsorptive effects, may experience a reduction in drug absorption with the decreased functional length of the intestine and decreased absorptive surface. Higher or lower absorption rates for orally administered drugs may occur, although empirical evidence on this is limited.

Many patients will experience rapid resolution of obesity-related comorbidities such as diabetes, hypertension, and dyslipidemia, and will require less insulin and reduced doses of oral hypoglycemic, antihypertensive, and lipid-lowering agents. Patients will require regular follow-up to monitor medication adjustments.

Alcohol consumption

Weight loss following bariatric surgery and the rapid emptying of alcohol from a gastric pouch contribute to faster absorption of alcohol, lower metabolic clearance, and higher blood alcohol content for each alcoholic drink consumed. Patients should be strongly discouraged from drinking alcohol during the rapid weight loss period after surgery. In the long term, increased sensitivity to alcohol has ramifications for operating a motor vehicle and heavy equipment; doing so after drinking even a small amount of alcohol is not recommended. Furthermore, alcohol is a source of empty calories and can contribute to the development of marginal ulcers.

Lifestyle behaviors

Bariatric surgery in itself does not guarantee success. The window of opportunity for establishing beneficial lifestyle behaviors is the first 12 months after surgery, when peak weight loss occurs. Some of the reasons for regaining weight or losing insufficient weight (defined as less than 40% to 50% of excess body weight) include:

- Failure to follow dietary guidelines (e.g., consuming high-calorie liquid meals or snacks; "grazing" instead of eating filling meals; eating crunchy starches and carbohydrates; drinking liquids with meals or drinking liquids right after eating, which flushes food out of the gastric pouch before it can stretch and send satiety signals).
- Lack of exercise.
- Psychiatric issues (e.g., depression, anxiety, binge eating).
- Postsurgical issues (e.g., large or dilated gastric pouch, dilated gastrojejeunal anastomosis).

According to the National Heart, Lung, and Blood Institute website, people who want to maintain their weight loss, as well as people who want to lose a large amount of weight (more than 5% of their body weight), may need to be physically active for more than 300 minutes a week (e.g., 1 hour of moderately intense activity for 5 days a week). While not everyone has the time or the financial resources to work out at a gym, adding steps to each day whenever and wherever possible may be enough to initiate change. Encouragement and support from health care professionals can go a long way toward helping

patients lose weight and improve their metabolic abnormalities, reduce obesity-related comorbidities, and increase their overall energy and confidence.

Early Nausea

Nausea may be related to insufficient chewing, fullness, sensitivity to odors, pain medication, not eating, post-nasal drip and/or dehydration. Nausea can occur after Lap-Band surgery, but is more common with the more invasive operations. For nausea that occurs in the first days after surgery, the nausea can be suppressed with medications called anti-emetics, and is often related to anesthesia drugs. In some cases the nausea can be so severe that it prevents patients from taking in adequate amounts of liquids. If this happens you need to call the surgeons office, you may need to receive intravenous fluids.

Food smell and/or taste can bring on a spontaneous wave of nausea. This is more dramatic early after surgery. Odors can sometimes be overwhelming after surgery. Many former patients found that by 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 in the beginning.

Late Vomiting

Heaving/vomiting is often associated with eating inappropriately. Usually the patient is the cause – patient is eating too fast or too big. It is very difficult to gage in the beginning how little food will satisfy your hunger or how slow, slow should be or how small, small should be. Chew your food well, reduce your bite and slow down. You may have to put your fork down between bites, or reduce your bite size even further. Keep it moist and eat only half of what you anticipate eating. Chances are that you are going to feel full with only 1 ounce of food in the beginning.

If you overeat after surgery, you may vomit. Sometimes fullness occurs quickly. Allow yourself time to recognize the feeling of fullness. Typically, a profound feeling of satisfaction follows the fullness within a few minutes, and makes further eating a matter of indifference. Lap-Band patients - once the pouch is full the food has no where to go but accumulate in your swallow pipe. If that happens your swallow pipe will quickly bring it up because it is not designed to store food.

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 through the day, stop eating solid foods and sip clear liquids only for the next 24 hours. Should you have difficulty swallowing foods or keeping foods down for more than 24hrs, please call your surgeon. **If vomiting continues for more than 72 hours, contact your surgeon**, since vomiting can lead to severe dehydration, a situation that needs to be taken seriously.

Persistent vomiting may indicate a complication also. It can indicate a stricture of the pouch outlet (blockage) or a slippage (blockage) of the band.

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. 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.

\rightarrow 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:

- Buy a sports bottle and take it with you everywhere you go, so you can sip water constantly.
- Drinking may become a full time job
- If drinking is too hard suck on posicles to get your water in
- Consider placing your 2/3 full bottle in a freezer the liquid will remain cold for a longer period of time while drinking
- Drink at least 64 ounces of fluids per day. Increase this amount if you are sweating.
- Avoid beverages containing caffeine they are diuretics and can dehydrate you.
- Remember just because it is difficult to drink it does not mean you can stop drinking. Your body needs water.

Bowel Habits

It is normal for you to have soft or liquid stools after surgery particularly with the more invasive operations. Most of these changes resolve as your body heals and you adapt to the diet changes. Please call your surgeon, should you have persistent and uncontrolled diarrhea.

Remember; 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 volume.

Keeping your bowel movement regular:

- Remember that your stools will be soft until you eat more solid food.
- When you are on liquids and a mostly protein diet fiber intake is down and you are more vulnerable to constipation. Do not be afraid to add fiber.
- 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 if necessary. Yogurt may be tolerated better.
- Use your Journal to help recognize problem foods
- If cramping and loose stools (more than 3 per day) or constipation persist for more than 5 days, please call your surgeon's office.

Flatulence

Everyone has gas in the digestive tract. Gas comes from two main sources: swallowed air and normal breakdown of certain foods by harmless bacteria that is naturally present in the large intestine. 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
- Discontinue the use of all cow milk products. Yogurt may be tolerated better.
- Avoid chewing gum and hard candy
- Avoid drinking with a straw
- ➡ Eliminate carbonated beverages
- Remedies may include: Lactobacillus, acidophillus, natural chlorophyll, and simethicone.

Anemia

It is recommended that all menstruating women take an iron supplement in order to prevent anemia. Please contact your physician in order to find out which iron supplement is best for you. 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 A. Vitamin A helps to mobilize iron from its storage sites, so a deficiency of vitamin A 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. Often the amount of iron in your multivitamin is enough at the start.

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. You can minimize the loss of hair by taking your multivitamins daily and making sure that you consume at least 60 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. Taking zinc about 15mcg per day has also been found to be helpful.

Scars

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. Consult with your OB/GYN. Some patches have weight limits for effectiveness.

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. Take precautions to avoid a unwanted pregnancy.

We suggest planning a pregnancy after your weight loss stabilizes. It is advisable not to become pregnant during the first 18 months, since we want both you and the baby to be healthy and safe. While you are losing weight it is not the best time to get pregnant. If you become pregnant particularly during the active weight loss period, we ask that you immediately contact an OB/GYN and maintain close follow-up.

Many believe weight loss surgery increases risk in pregnancy. Weight loss is actually a very good thing for anyone considering pregnancy. It is wiser to first lose the weight and then get pregnant.

Diet

Nutritional Expectations

After weight loss surgery you will need to make changes to your eating habits and life style. Please access your Diet Guide for your specific weight loss operation to obtain detailed information about nutrition and the changes that are going to be demanded of you. Below is a general introduction of what you can expect.

When reading your diet guides please keep separate the early versus late dietary recommendations. Often patients confuse the two and are doing the wrong things without even realizing it.

The first 2 months after surgery are often referred to as the "survival months". Survival month means you are doing everything you have to, to meet your daily minimum requirements. That is 64 ounces of fluid, 60gm of protein and a multi vitamin daily. This can be very hard in the beginning, thus the rules can be broken during this period to be able to meet requirements. You will not be hungry and you will not be thinking about food, but you still have to meet your minimum daily requirements.

Once you begin to tolerate solid foods, we expect you to begin to follow the rules. Despite your best efforts you will likely only be able to eat an ounce or two of food per meal in the beginning. That means you will not be able to get your protein from solid food alone. The only cheating we allow then is drinking a protein shake to get your protein daily math to equal 60gms of protein.

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. You may also be surprised at how the surgery changes your wants and desires for certain foods. Foods you may have previously loved, are no longer as attractive.

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, poultry, red meat, cheese). Carbohydrates (bread, pasta, rice) should make up only 10 to 20 %, and fats (butter, oils) only 5 to 15 % of the calories that you eat. Protein drinks can be helpful to fulfill your protein requirements in the beginning. There are many to chose from. Look for protein drinks that are low calorie and low sugar and that have a good taste.

Avoid foods which contain sugar. They can slow down your weight loss. 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. 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 a minimum volume. A remarkable effect of Bariatric surgery is the progressive change in attitudes towards eating. The operation makes it easy to finally do what you have been trying to do on your own. Patients begin to eat to live – they no longer live to eat. As well, exercise must be part of your daily routine.

Lactose Intolerance

Lactose intolerance is a set of symptoms resulting from the body's inability to digest the cow milk sugar called lactose. Gastric Bypass 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 to 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 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. You can still enjoy goat milk products without any worry of having lactose intolerance.

Dumping Syndrome

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 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. In practical fact, a patient usually experiences a combination of these events and there is no clear-cut division between them.

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 RNY gastric bypass, patients can develop abdominal bloating, pain, vomiting, and vasomotor symptoms (flushing, sweating, rapid heart rate, light headedness). Finally, some patients have diarrhea. Since with the RNY Gastric bypass the stomach is not being used (hence the name) and a new, small pouch that directly connects to the small intestine is created, there may be dumping. 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.

Restricting simple carbohydrates (sugar drinks, ice cream, rice, pasta, potatoes and other sweet tasting foods), eating more protein and not drinking liquids during a meal can reduce the symptoms of dumping. Further, avoid foods that are very hot or very cold. These can trigger symptoms.

Obviously, surgeons consider dumping syndrome to be a beneficial effect of 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 that once or twice. Most simply say that they have lost their taste for sweets. 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 takes in sugar or a food that is closely related to sugar (simple carbohydrates like rice, pasta, potatoes) they will

experience some degree of hypoglycemia in the hour or two after eating. The hypoglycemia stimulates appetite, and it's easy to see where that is going.

Eating Survival Techniques

Your new motto is: "slow, small, and chew".

And when you think you are eating slow and small you probably need to slow down and reduce your bite size even more. You need to change how you eat to avoid pain in your chest and dry heaving.

Swallowing food in large chunks or quick consecutive small bites blocks the esophagus. It is *CRITICAL* that you eat slowly, reduce your bite size and chew your food well to lower the frequency of plugging up your swallow pipe. The discomfort is mostly in the middle of the chest and it is not a pleasant feeling.

Your swallow pipe has to work a lot harder now to put food into your stomach. The easiest way to think about it is to imagine a big pipe (swallow pipe) emptying into a much smaller pipe (new stomach). When you are filling the big pipe too quickly or the bites are too big it will have trouble emptying into the small pipe. When that happens the big pipe backs up and you will experience chest discomfort and the urge to heave the obstructing food out. **OR**. You can think of it as the sink backing up. Food is not able to go down the drain causing a backup.

When in the early stages after surgery, frequent heaving because of fast/big bites or fast/big gulping of liquids will make it even harder for you to drink/eat. You must focus even when drinking. This is the most common reason why patients dehydrate - frequent heaving retching will make it harder and harder to drink. YOU MUST avoid heaving/retching early after surgery, that means you must slow down and reduce drink/bite size.

You may find the following tips helpful:

- Set aside 20 minutes to eat each meal. You must slow down we all eat too fast. This is a very hard thing to break. Eating for us is innate; we do not have to focus on eating to be able to eat. When you are not paying attention and you start eating more normally you will plug up your swallow pipe. When patients obstruct they often do so with the first 2 to 3 bites Why? They were not paying attention. Many believe this is 'fullness' No, it is just plugging up of the pipe and that is why in about a half hour after when the plug moves they are hungry again.
- Explain to friends and family why you must eat/drink slowly so they do not urge you to eat faster.
- Take small bites of food/drink and, for a visual aid, you may want to use a saucer in place of a plate to help with appropriate portioning. Try precutting all meats. A small bite in the beginning may be as small as a quarter of a dime. Look at everything that is nearing your lips before swallowing. The first 2 to 3 bites are usually what get people into trouble because they are eating normally and don't even know it.
- Slow down; It should take you about 20 minutes to eat the 2 to 4 ounces of food. The more you follow the rules the slower and smaller you should go. Put your fork down between bites and wait a minute before the next bite. It is much harder than people believe.
- Eat at least 3 meals per day. To get your 60 gm of protein in you must eat 20gm per meal. Twenty grams of protein is about 3 ounces of any meat or fish. In the beginning you are lucky if you can handle 2 ounces. So to get your protein in you have to spread out the meals to be able to do so.
- Eat good quality foods To meet your nutritional needs the quality of your food has to be good. You are now eating 3 to 4, four ounce (1/2 a cup) meals per day for a total of 2 cups of food per day. All your food must be nutritious. Remember a minimum of 20gm of protein with each meal. Quality protein is in <u>real</u> fish, seafood, poultry, cheese, and red meats. Please note we underlined real shop in the butcher section, not in the deli or frozen ready to eat food section. Your sugars should be more complex good quality pasta, bread from a bakery (not

wonder bread), fruits, and vegetables. Avoid processed or refined sugar: soda, juice, sweet drinks, boxed starches, premade foods, and deserts.

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 you have eaten the amount of food you believe is appropriate stop and wait. The sensation of fullness can be delayed by a few minutes.

Foods that may be difficult to tolerate:

- Bread products
- Dry Pasta products
- Dried fruits and skins of fresh fruit
- Raw fruits and vegetables
- Red meat
- Dry. Dense and tough meats

When eating foods that are difficult to eat, it does not mean you stop eating them. This is when you particularly want to slow down and reduce your bite size and pay attention to what is passing by your lips. Many things in weight loss surgery are counterintuitive. This is why it is important for you to attend rules class and learn how to use your tool and eat with it.

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 is the best tool to help maintain your weight off.

> Remember rules are the key to your success. Losing weight will be a life time struggle. Losing weight is all about permanent eating habit and life style changes. These operations are only tools that you have to learn how to use. Weight loss surgery works a lot better when the rules are followed.

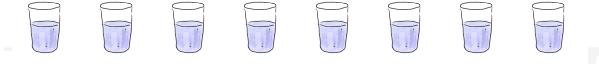
Fluids

We dedicated a section to fluids to stress their importance. Your body needs a minimum of 64 ounces of fluid per day. Recommended beverages are water, or if desired, unsweetened, or low calorie carbonated and non-carbonated beverages. Juices are high in calories. Gatorade is not sugar free.



Here are some tips

- When drinking is too hard lick popsicles to get your water in.
- Avoid carbonated beverages in the beginning when hard to drink the gas build up can cause trouble when on the learning curve.
- Do not drink 5 minutes before a meal once tolerating solid food
- Drink a minimum of 90 minutes after a meal once tolerating solid food
- Sip slowly and carefully
- Measure out how much liquid you must drink and make sure that by the end of the day the bottles are empty.
- Avoid caffeine in the beginning when hard to drink caffeine is a diuretic
- Sip fluids continually all day long if you have to, to prevent dehydration
- 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!



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

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 three, low starch, high protein, nutrient dense meals and one protein snack per day – every day. Between meal 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.
- Your body needs a minimum of 60 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, 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 60 grams of protein should be the goal for the first few months. In the beginning, this may force you to eat mostly protein in order to reach the minimum requirement of 60gm of protein per day.
- Stop eating when feeling full or if feeling any discomfort.
- Eat slowly. Chew slowly and thoroughly at least 20 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 20 minutes for each meal. Take your time to enjoy the food. Do not eat when feeling rushed or stressed as this may cause fast eating. 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 blockage.
- Over the long term, good, well-balanced nutrition is important: Protein first (Beans, tofu, meat, eggs, fish, seafood, dairy products, poultry, and meats), then vegetables, fruits and complex carbohydrates. To use protein properly, your body needs adequate amounts of complex carbohydrates.

- Do not overcook your meat as this makes it difficult to eat. Slow cooking preserves moisture in the meat better. Moist meat is tolerated a lot better by weight loss surgery patients. Discover marinades and rubs. Marinades tenderize meat – that means meat is juicier after cooking, rubs give different flavors very easily. You will notice that it is easier to eat protein rich foods if they are moist and juicy. An example would be chicken thigh versus chicken breast.
- Even though you may not always experience "dumping syndrome", too much fruit, 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. Even when a fruit product claims "unsweetened" that only means that there is no added or less added sugar. The amount of natural sugar, however, is often substantial. Non-carbonated diet beverages are permitted. However, too many diet beverages can cause water retention and diarrhea. 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. There is no bad food for you if eaten in appropriate amounts.

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". 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
- Cakes and cookies
- Jellies
- Regular soft drinks/Lemonade

- High fructose corn syrup sweetened beverages
- Sugared ice tea
- Carbonated fruit drinks
- Table sugar
- Honey
- Candy and chocolate
- Sweetened gelatin desserts
- Regular chewing gum
- Molasses
- Syrups
- Sherbet/sorbet
- Jams
- Pancakes and waffles with syrup
- Soup
- Milkshakes and chocolate milk

Protein Power

Protein is the essential stuff, of which our muscles, organs, heart, hair, nails and brain are all made of. Our bodies require a constant supply of protein as our bodies building material, to repair and replace tissues which became worn out or damaged. Because the small stomach pouch reduces the capacity of the stomach to a very small volume of food, protein containing foods take priority with each meal. This is crucial to be sure that the body gets enough protein to maintain itself. If the focus of each meal is protein-rich foods, deficiency is very unlikely to occur. The primary source of nutrition should be protein. 60 grams of protein every day (eggs, fish, meat, cheese, soya, seafood), carbohydrates (bread, pasta, rice, etc.) should make up only 10 to 20 %, and fats (butter, oil etc.) only 5 to 15 % of the calories that you eat. That means at 2/3^{rds} of every plate of food should be protein (aim for 70% of your plate) the rest or next item of food that you eat on your plate should be a vegetable, then fruit and then a starch if you still have room left in your pouch. A diet consisting of 60 grams of protein should be the goal. Once you can get 60gms of protein in from solid food – NO MORE protein shakes. Protein shake is a liquid calorie. Protein shake eventually becomes a rule breaker.

It is important to get at least 60 grams of protein each day. Remember that if you have not taken in adequate amounts of protein after 4 weeks, your body will start to break down its own source of protein – body 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 shakes, 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. Roughly cooked meat or fish/seafood in the shape and size of a deck of cards will give you 20 gms of protein. Three decks of cards daily will give you 60gms of protein.

You may want to invest in a small kitchen scale so that you know by just looking at a portion of food approximately how many ounces it is and thus how much protein that food contains. An example: a deck of cards is about 3 ounces of steak, chicken, fish, turkey, or pork, and that is about 20 grams of protein. If you are able to eat a deck of cards of a meat with every meal (three meals) then you should be able to meet at least the minimum quota of 60 gm of protein per day.

FOOD NAME:	PORTION:	PROTEIN AMOUNT:
Beans, kidney, canned	½ cup	8 grams
Cheese, cottage	½ cup	14 grams
Cheese, Mozzarella	1 oz	8 grams
Cheese, Ricotta	¼ cup	8 grams
Chicken, thigh	3 oz	21 grams
Cod	3 oz	21 grams
Crab, steamed	3 oz	17 grams
Egg	1	6 grams
Flounder	3 oz	21 grams
Halibut	3 oz	21 grams
Ham	3 oz	21 grams
Hamburger	3 oz	21 grams
Lobster, steamed	3 oz	16 grams
Peas, chick, canned	½ cup	7 grams
Salmon	3 oz	21 grams
Shrimp	3 oz	18 grams
Soybeans, Edamame	½ cup	14 grams
Soy flour	¼ cup	13 grams
Soymilk	1 cup	7 grams
Soy nuts	¼ cup	15 grams
Swordfish	3 oz	21 grams
Tempeh	½ cup	16 grams
Texturized Soy Protein	½ cup	11 grams
Tofu	½ cup	10 grams
Tuna, canned	3 oz	25 grams

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

Turkey	3 oz	21 grams
Veal	3 oz	21 grams
Yogurt, plain	1 cup	11 grams

Tofu

Tofu can be a great source of protein. It is easy to prepare and very easy to digest and tolerate. Of course that means that in order to get protein, you actually have to eat it. Don't be alarmed, it can taste wonderful. It's just that many people have no idea how to prepare the tofu.

We thought that we would help you out and give you these helpful hints:

- Buy only organic firm tofu, for use in stir frying or cooking as a main dish
- There are some really good soy products available at standard (as well as natural) food stores such as tofu, corn dogs, breakfast sausages and frozen products.
- ⇒ Try cooking with tofu as you would your favorite chicken or fish dishes.
- Cooking with tofu is like cooking with a blank palate. Whatever you spice the entire dish with the tofu will take the flavoring. Tofu alone has a very mild, bland flavor if you leave it to fend for its own identity.
- One tip for cooking with tofu is pressing it. Unwrap uncut tofu, drain water off, and wrap in a clean cloth, placing a weight (like a heavy ceramic dinner plate) on top for about 45 minutes before you add your spices. This gives the tofu a chewier, dryer taste.
- ⇒ Enjoy! (Really, you *are* going to like it)

Other soy products to try: Soy milk, soy shakes, soy granola and flakes, soy cheese alternatives, edamame (in pod or shelled), Garden burgers, Boca burgers, soy flour, soybean butter, soy pasta, roasted soy nuts, tempeh, soy protein powder, Soytzels (soy flour pretzels).

Soya is not the best rules food. Soya in most preparations will be softer then we like. It is best used when learning to eat and tolerate solid foods.

Vitamins and Minerals

TAKE YOUR VITAMINS AND MINERALS (FOREVER) AND SEE YOUR DOCTOR ONCE A YEAR TO HAVE YOUR BLOOD LEVELS TESTED. IT IS A LIFE AND DEATH PROPOSITION.

Conventional nutritional teaching has been that vitamins and minerals are contained in adequate amounts in a well balanced diet, and supplements should not be required, provided that one eats a well-balanced diet. Immediately after bariatric surgery, the small stomach pouch does not allow you to eat enough to get the proper nutrition, and the malabsorptive part of the surgery (in the bypass, BPD, or DS) decreases the body's ability to process vitamins and minerals. In order to get enough vitamin and mineral supplementation a patient should take supplements for the rest of their lives. We believe that it is safest to continue the multivitamin intake for the rest of your life. See your diet guide for more information.

Multi-Vitamin. All weight loss surgery patients must take a good multivitamin once a day to stay out of trouble. The diet guide lists what we are looking for in a decent multivitamin.

Vitamin B₁₂. Even with daily vitamin intake, some people develop deficiency of vitamin B-12. B-12 is absorbed in the stomach and the duodenum, which are largely bypassed with Roux-en-Y Gastric bypass surgery, the BPD or DS. The sleeve has only 20% of the stomach left which may not be enough to absorb enough B12 to meet requirements. Simple use of a sublingual (under the tongue) B12 vitamin maintains adequate vitamin levels and can prevent deficiency. B-12 can also be administered by injection, or as a nasal spray but not as an oral tablet that you swallow. B-12 deficiency can develop quickly, with little warning and can become very dangerous. B-12 deficiency can lead to pernicious anemia (megaloblastic), peripheral neuropathy, paralysis and depression. Make sure to keep in contact with your medical team to have your vitamin levels checked regularly.

Calcium. All weight loss surgery patients must keep up with their calcium needs. Your multivitamin preparation should contain basic mineral and vitamin supplements in generous amounts but not necessarily

calcium. We recommend that you take at least 500 mg of Calcium Citrate two to three times per day to ensure proper absorption of Calcium. Calcium Carbonate is not as readily absorbed as calcium carbonate.. Calcium is necessary for healthy bones, teeth, and nerve transmission. Most patients do not get enough through their diet and a regular vitamin tablet even without weight loss surgery. Please see diet guide for more details.

Iron. Many patients, particularly menstruating women, will require an iron supplement to maintain adequate iron stores and prevent anemia of iron deficiency. Iron is available in many different formulations. The most commonly available form, such as ferrous sulfate, can sometimes be constipating. Ferrous fumarate may be less constipating. Also look for an iron-polysaccharide complex, which is generally well tolerated. The dose that is in your multivitamin may be adequate, monitoring is very important to ensure adequate intake.

Party Talk

Overeating at parties is easy to do - especially when you are having fun and you may be engrossed in a conversation. It is also easy to keep munching very small amounts of food over a long period of time. Snacking or Grazing is considered a bad habit after weight loss surgery, since there is nothing that prevents you from eating a tiny amount all day long without feeling full. Thus, make "party eating" one of your meals for the day. Never munch directly from the bowl, which can make portion control harder to estimate. Instead, place the food directly on your napkin or small plate, and take only the food you are planning to eat. Remember, you cannot eat more than a small child's portion now. Look for the protein items first. You can then supplement your meal with other choices as you feel fit. Slow down your eating so you can really enjoy the flavors of the food and will not feel deprived as you finish your small portion. Turn the snack food into a meal.

A party is not a good place to try foods for the first time. You do not want to end up ill and have to go home early. Instead, take time at get-togethers to socialize more, have fun and enjoy the people present.

The more events, places and situations that you associate with food, the more often you will feel like eating or perhaps may feel deprived that you can no longer eat amounts like you once did. Learn to focus on other things besides the food. You should eventually feel a sense of freedom from the drive to eat – use this opportunity to find new focus and enjoyments in life.

Learn to eat more slowly, and deliberately to allow your body to feel the fullness and to digest your food better. When you eat too fast, you could overeat or not chew your food well enough which could cause vomiting. Old habits will have to be worked on until your new slow eating is your normal style of eating.

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 of you are two to 3 weeks post-op, you should be walking regularly 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.

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. Patients report exercise as a key factor in their ability to maintain their weight off. If you want to feel good and maintain and build muscle mass, you must exercise. Exercise helps you loose 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. Research has shown that patients who exercise 3 or more times per week for a minimum of 30 minutes lost an additional 12% of their excess weight in 6 months. 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, taichi, etc... Exercise does not mean that you have to be in a gym for hours a day. If it has been some time since you have exercised regularly, then it is best to start slowly. Begin with as little as 5 minutes a day and add 5 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 loose the weight and keep it off.

There are three forms of exercise: cardiovascular, strength-building, and flexibility.

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 heard rate to a level where you can still talk, but you start to sweat a little. At least 20 minutes of cardiovascular exercise 3 or 4 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 5 or more days a week for 30 to 45 minutes or longer.

Strength-building exercises are known as **anaerobic exercise**. Anaerobic exercise does not have cardiovascular benefits, but it makes your muscles and bones stronger. Strength-building exercises require short, intense effort. People who lift weight or use any type of equipment that requires weights are doing strength-building exercise. Strength-building exercise makes your muscles and bones stronger and increases your metabolism. Strength exercises also make your muscles larger. 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. If you strength train regularly, you will find that your body looks leaner and you will lose fat. Strength building exercises should be performed 2 to 3 times a week for best results. Always warm up your muscles for 5 to 10 minutes before you begin lifting 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. A well balanced exercise program should include some type of each exercise from each category.

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, like *every day*, 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. Obese persons tend to have strong bones because the pressure on the bones stimulates bone strength building. 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 your <u>Diet Guide</u> to maintain optimal nutritional status. In addition, it is very important during active weight loss to exercise. We recommend at least 20 minutes a day of aerobic exercise and weight bearing exercise. Devote attention to the upper body strength as well. Many persons 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 every day can greatly enhance fat-burning, and hasten weight loss. Our research has shown that patients who exercised at least three times per week for at least half and hour lost 12% more of the total excess weight after surgery. It also builds a healthy and beautiful body.

Seriously obese persons are very strong and powerful – just getting out of bed, you lift more than some people pick up all day long! It would be upsetting to have this muscle power lost, especially when you need it to enjoy life. Save your muscles, keep your energy, eat your protein and EXERCISE!

Even regular plain walking can have a great impact. Invest in a pedometer. An average person should be walking 10,000 steps/day. The average weight loss surgery patient does less than 3,000 steps/day. Determine how many steps per day you walk, and start from there and monthly increase the walking steps by 500 or more as tolerated. It is simple but very effective.

Common Workout Mistakes

- 1. **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.
- 3. **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.
- 4. **Pretending you are Arnold.** 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 safer way to increase muscle strength.
- 5. 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.
- 6. 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.
- 7. 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.
- 8. **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.

- 9. Believing more is better. The most effective way to 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.
- 10. 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 loose 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 is offering. Does your hospital offer water exercises classes for people with arthritis? Is there a gentle yoga class offered at the community center? 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 and personal trainer to meet you at the gym or in the park.
- 5. Find your rhythm. Listen to music or books on tape or meditation while you exercise. 15 minutes on the bike can seem like an eternity without music, but with the right music to occupy your brain, it will not seem so long.
- 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 you 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, most likely you will 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. Write down the exercise you do 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.
- 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 not to Exercise

- 1. I don't have time.
- \Rightarrow Set a time and stick to it.
- ⇒ Watch less TV and turn off the computer.
- Remember that exercise is a stimulant and leads to more productive use of time.

2. Exercise is work

- ⇒ 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!

3. I'm too tired

- ⇒ Exercise improves energy levels throughout the day
- ⇒ Exercise improves the quality of your sleep.

4. I might fail

- Exercise is not a contest!
- ⇒ If you stick with the program, you will succeed no matter what.
- Remember to start slowly and gradually increase your intensity and duration.

5. I hate exercise

- Everyone likes some exercise, you just have not found something you like yet keep searching!
- \Rightarrow Try exercising with a friend
- ⇒ Listen to music or a book on tape. At least this way, your focus will not be the exercise.

The Walking Workout

Recent research indicates that walking is one of the best way 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 ten to 20 minutes four or five days a week. As you get stronger, you can increase the distance and the speed to your comfort level. Use a pedometer to monitor your progress and motivate you.

As with any type of exercise, it is still important to warm up, then stretch. Start by walking for just 5 minutes and then do a few gentle stretches. Your muscles will stretch better if you walked 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.

An average person should be walking 10,000 steps/day. Use that as your ultimate goal. First determine how many steps per day you walk, and then slowly increase it by 500 steps or more every month till you reach your goals.

Water Fitness

Many of our clients like water programs. You can start water activities about three weeks after surgery. 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 heartdisease related classes through their physical therapy program and usually will let you join the class with a prescription from your Primary Care Physician. Those are favorite beginner classes, since it is more of a medical environment and the cost is often covered through the health insurance. Health clubs and YMCA now also offer most specialized classes with different fitness levels. Whichever class you may 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 for cardiovascular work and free-weight training.
- 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 you 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.

Long Term Success

Follow-up

Follow-up is extremely important with weight loss surgery. Lifelong follow-up appointments are expected and need to be scheduled with the office staff. 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.

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 weight loss 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 loose 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 and your diet guide. Your window of maximum weight loss is in the first 12 months. With exercise you can improve the weight loss.

Weight loss surgery works in part by making the stomach much smaller so that one feels full sooner. It also works to curb the appetite because the food goes quickly into the small intestine, and chemical messages are sent to the brain telling the satiety centers that food is present. The surgery will give you a full feeling on a much smaller meal, improve the sense of self-control and help many avoid sugary foods due to dumping syndrome. While we will be able to control how much you can eat we still can not control what you eat. Weight loss surgery operations help break the vicious cycle. Once patients realize that they can only eat up to a 1/2 cup of food per meal three times a day, it becomes easier for them to eat better, because their appetite and hunger is controlled, they experience fullness and satisfaction from food.

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 6 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!

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

- 1. Consumption of an adequate amount of liquid, preferably water, is crucial. You should consume a minimum of 64 ounces of liquid each day. This can only be done slowly, sipping fluids throughout the day. On very hot or humid days, or when exercising, you should drink additional glasses of water. This is necessary in order to prevent dehydration. Avoid liquids with calories.
- 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. When you decide to eat, eat to fill up. Do not eat un-filling meals. This will prevent snacking.
- 3. The primary source of nutrition should be protein. 70 to 75 % of all calories consumed should be protein based (eggs, seafood, fish, meat, etc). Carbohydrates (bread, pasta, rice) should make up only 10 to 20 %, and fats (butter, oils) only 5 to 15 % of the calories that you eat. A diet consisting of 60 grams of protein should be the goal for life.
- 4. Never drink liquids when eating solid. Liquids should be avoided for a period of 5 minutes before and at least 90 minutes after eating meals.
- 5. Avoid foods and liquids which 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". 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 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 important, within a few months after surgery, to begin a regular exercise program. Our research indicates that this will increase your overall weight loss. Exercise is particularly helpful in helping patients maintain the weight off that they have lost long term.
- 8. Attend support group meetings and nutrition and behavior modification classes. 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.
- 9. Make these changes permanent. If you revert back to the old ways the old weight can come back.
- 10. The 3 rules must be followed at least 75% of the time.

Changes

As you loose 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 one year. Talk with our surgeons when you are ready.

Reconstructive/Plastic Surgery

Patients who lose more than 100 pounds can also face another challenge – excess skin. This is especially noticeable on the face, upper arms, thighs, 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 and better fitting clothing. Reconstructive surgery to improve your appearance should be delayed until your weight loss has stabilized for at least one year. When you are ready for reconstructive surgery, talk to our surgeons about the available potions.

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 up 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, other patients for support.

We are here to support you through the changes with consultations, support groups, and nutrition-behavior modification classes. Use the Journal 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 for appropriate help.

Counseling

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 persons 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

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 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 loose 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. I 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:

- \Rightarrow 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.
- \Rightarrow Take measurements of yourself every few weeks and record the results.
- \Rightarrow 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.

Group Meetings

We consider group meetings to be 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 nutrition, how to best take advantage of the tool you were given, let you share your experiences and learn from others, and to expand your knowledge about general health. 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 nutritionist and psychologist. 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.

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 hoe 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.

Journal

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. A sample journal that you may use has been provided for you, look for it in the patient corner section in patient forms. You will treasure this work and will be glad to flip back the pages to see your transformation. 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).

