

WELCOME TO OUR OFFICE!

We would like to welcome you to our office and thank you for the trust you have shown us by becoming our patient. It is our goal to give you the finest medical treatment available and to assist you in any way possible to achieve your medical goals.

We feel the best patient/physician relationship can be achieved by open communication and understanding. This is only possible if you feel free to discuss any questions or problems you have with our policies. We encourage you to discuss with the appropriate person any questions that may arise.

This booklet has been prepared to help answer questions you may have about gastric bypass surgery and obesity. You should keep it handy and bring it with you to all of your appointments with our office.

The purpose of this book is for the education of bariatric patients of the Advanced Bariatric Center of Fresno. This is only one of the tools used for this purpose. The information within the book is accurate to the best of our knowledge. It is not meant to be used as a definitive source, but as a compilation of information on the subject of bariatric surgery. We deny any responsibility for decisions based solely on this book or for any inaccuracies, errors, or omissions therein.

WHAT IS OBESITY?

Severe obesity is a chronic condition that is difficult to treat. A body mass index (BMI) above 40, which usually means at least 100 pounds overweight for men and women, indicates that a person is severely obese. Your physician has probably called it morbid obesity. You can calculate your BMI with this formula: weight in pounds x 705 divided by your height in inches and then divide that number by your height in inches again. The result of this calculation is your BMI. A chart is included in this booklet for a quick way to find your BMI.

People with a BMI of between 35 and 40 and have other medical illnesses can also be classified as suffering from severe morbid obesity. People 20% or more above their desirable weight show an overall increase of 20% in the likelihood of death from all causes and a 25% increase in death from coronary artery disease (CAD). There is also a 10% increase of risk from stroke, a 40% increased risk of having gallbladder disease, and twice the risk of developing diabetes.

WHO IS A CANDIDATE FOR BARIATRIC SURGERY?

Not every morbidly obese person is a candidate for the Laparoscopic Gastric Bypass surgery. The following criteria must be met:

- ⇒ Patients are usually between 18 and 60 years of age.
- ⇒ No history of major psychiatric illness.
- ⇒ Weight of 100 pounds over normal for their height or a BMI ≥ 40 , or ≥ 35 with comorbid factors such as hypertension, asthma, or diabetes. Many insurance companies will not cover the surgery if your BMI is under 40.
- ⇒ Patient must have documented support of their immediate family. Patient must have a personal physician who will support the patient for gastric bypass surgery and will actively follow them after their procedure if out of the local area.
- ⇒ No history of untreated drug use or alcohol abuse.
- ⇒ If patient is under the care of a psychiatrist, this psychiatrist must document stability of patient for surgery and have a plan for management of depression postoperatively.
- ⇒ Patient must document commitment to participate in postoperative exercise and follow-up program.
- ⇒ Patient must have a complete understanding of the procedure, the risks and possible complications, and the lifelong changes in eating habits.
- ⇒ Patient must read and understand everything in this booklet and be willing and able to do the parts of the program that are their responsibility.

MEDICAL COMPLICATIONS OF OBESITY

Endocrine Abnormalities: Morbidly obese women have more irregularity in menstrual cycles, as well as more frequency of other menstrual abnormalities. There is also a higher frequency during pregnancy of having toxemia and hypertension. The onset of menarche is younger for obese girls.

Hypertension: In overweight young adults, ages 20-45, the occurrence of hypertension is six times that of normal-weight peers. Weight gain in young adult life is a potential risk factor for developing hypertension in later life.

Respiratory/Pulmonary Abnormalities: Pulmonary abnormalities are common in obese individuals. These include the less debilitating problems of decrease in lung volumes and expiratory reserve volume to the extreme of patients with sleep apnea, Pickwickian syndrome, somnolence, and hypoventilation. Obese patients often have disrupted sleep patterns from waking to "catch their breath."

Gallbladder Disease: Obese women in the 20-30 year age range have a six times greater expectancy of developing gallbladder disease than their normal-weight peers. Nearly one-third of obese women can be expected to have developed gallbladder disease by the age of 60. Fatty infiltration of the liver is also associated with obesity.

Degenerative Arthritis: A significant correlation between uric acid levels and weight has been found. The chance of gout is dramatically increased when a patient's weight is greater than 130% above the desirable. Weight loss will markedly decrease the obvious mechanical problem of stress on weight bearing joints that causes pain and loss of mobility. Obesity also increases the chance of developing osteoarthritis.

Cardiovascular Disease: It is calculated that for each 10% increase in body weight there is an approximate 20% increase in the incidence of coronary artery disease. Blood pressure increases 6.5 mm; cholesterol and glucose are both significantly increased.

Cancer: Morbidly obese men have a significantly higher mortality rate for colorectal and prostate cancer. A 20-year follow-up study showed that men who are 130% over normal weight are 2.5 times more likely to die of prostate cancer compared to their normal-weight peers. Menopausal women with upper body fat have an increased risk of developing breast cancer. Higher rates of uterine and ovarian cancer are found in morbidly obese women.

Psychological: There is no doubt that obese individuals have lifestyle restrictions. Mobility and physical incapacity due to back-joint problems and shortness of breath are very common among morbidly obese individuals. This can contribute to absenteeism and unemployment. Impairment of body image is a major form of psychological disturbance for the obese. Repeated failure of diet and exercise to help their "problem" causes a feeling of despair and depression.

TYPES OF SURGICAL PROCEDURES

Malabsorptive Operations:

Jejunioileal Bypass (JIB)

This procedure is no longer performed in the United States. It was one of the earliest procedures for morbid obesity and achieved its results by shortening the overall length of the bowel to less than 10% of its normal length. This causes serious nutritional and metabolic side effects and contributed to mortality in a significant number of patients. Patients who have already had this procedure need to be under close medical supervision and should consider a conversion to another weight control operation.

Biliopancreatic Bypass (BPD) (Figure 3)

This operation involves dividing the stomach and connecting it to the last part of the intestines. The lower half of the stomach is removed and the diverted bile and pancreatic fluids (which are important in breaking down food particles) are connected downstream. Weight loss averages 70-75% of excess weight but the risks are greater than the RYGB since they include all of the potential risks of gastric bypass plus malabsorptive complications including protein malnutrition, diarrhea, and liver disease. Only a small fraction of surgeons perform this operation.

Duodenal Switch (DS)

This surgery has largely replaced the BPD in this country. This operation is similar to the BPD except that the stomach is divided lengthwise into a narrow channel rather than across. The intestinal length is increased to cut down on malabsorptive complications. The weight loss is the same as BPD and the complications are fewer (but still more than RYGB). Among the minority of surgeons who do this procedure, most perform it open rather than laparoscopically.

Restriction Operations:

Vertical Banded Gastroplasty (VBG) (Figure 1)

This operation was first described in 1982 as a safer alternative to RYGB since there are no intestinal connections and therefore less of a chance for intestinal leaks. The operation involves stapling part of the stomach to create a small channel and then wrapping a prosthetic mesh around the end to prevent stretching. Unfortunately, the resulting weight loss and, therefore, improvements in associated medical conditions is significantly lower than with the RYGB. Most surgeons do not perform this surgery anymore.

Roux-en-Y Gastric Bypass (RYGB) (Figure 2)

This operation is the benchmark to which other operations are compared for evaluation of their quality and effectiveness. A small pouch is created along the inner curve of the stomach and the small intestine is attached to the pouch. This procedure provides an excellent tool for long-term control of weight without the feeling of being deprived and hungry. Patients eat much smaller portions due to the pouch size, but they have the sense of fullness and satisfaction that makes them indifferent to even their favorite foods. They continue to enjoy eating, just much smaller portions. Nutrition is maintained by faithfully continuing to take vitamin and mineral supplements.

Laparoscopic Gastric Bypass Roux-en-Y (lap RYGB) (Figure 3)

This operation is the gold-standard operation for obesity – the one the majority of surgeons who do the surgery perform and the one that combines excellent and consistent results with a low complication and death rate. The operation is performed through six mini-incisions and involves two divisions and two connections of the stomach and intestines. A small shot-glass size pouch is created which gives the sensation of fullness after small meals. The operation takes 1-1 ½ hours and the hospital stay is usually two days. On average, patients lose 60-70% of excess weight, although many of our patients are motivated to lose 100% of the excess weight. A significant improvement and frequently, cure, occurs of the obesity-related medical diseases. This translates into a healthier and better life. Risks from surgery include bleeding, infection, blood clots, intestinal leak, bowel obstruction, stenosis, and ulcers. This operation may be performed laparoscopically or “open”, which means through a vertical incision over the upper abdomen.

Laparoscopic Gastric Banding (Lap-Band)

This procedure is performed by a silicone elastomer band being surgically placed around the stomach at the upper end. This creates a small pouch and a narrow passage into the remainder of the stomach. Food passes through the outlet from the upper stomach pouch to the lower part more slowly and the patient feels full longer. This type of band can be adjusted by the use of a port device that is attached to the band by a length of tubing. This port is similar to those used for chemotherapy. It is under the skin in the abdominal area. The first adjustment to the Lap-Band is at six weeks postop. This allows time for the normal post-surgical swelling to subside. After that the patient may schedule their adjustments to fit their own personal schedule.

Patients should plan on losing 1-2 pounds per week, on average, over the first year. Weight loss is found in almost all patients with restrictive operations. In all weight loss operations success depends on patient motivation and behavior. Regaining weight is a risk. Approximately 30% of patients undergoing banding achieve normal weight. This surgery is not approved for anyone under the age of 18. This procedure may be entirely an out-of-pocket expense, as insurance companies may not cover the gastric banding.

One of the advantages of the Lap-Band system is that the stoma size can be adjusted postoperatively to individualize patient care without additional surgery. Swelling of the tissues during the early postoperative days may temporarily decrease the stoma size. This is the reason why our surgeons prefer to inject only a small amount of saline at the time of surgery. Our goal is to perform a step-by-step adjustment based on patient needs. We feel this gives a good weight loss cure, prevents vomiting, and allows the intake of solid foods.

NIH NEWS RELEASE

NATIONAL INSTITUTES OF HEALTH

National Heart, Lung, and Blood Institute

FOR RELEASE

CONTACT: NHLBI Communications
Office

10:00 a.m. Eastern time

(301)496-4236

Wednesday, June 17, 1998

First Federal Obesity Clinical Guidelines Released

The first Federal Guidelines on the identification, evaluation, and treatment of overweight and obesity in adults were released today by the National Heart, Lung, and Blood Institute (NHLBI), in cooperation with the National Institute of Diabetes and Digestive and Kidney Disease (NIDDK).

These clinical practice guidelines are designed to help physicians in their care of overweight and obesity, a growing public health problem that affects 97 million American adults - 55 percent of the population. These individuals are at increased risk of hypertension, lipid disorders, type 2 diabetes, coronary artery disease, stroke, gallbladder disease, osteoarthritis, sleep apnea and respiratory problems, and certain cancers. The total costs attributable to obesity-related disease approaches \$100 billion annually.

“Overweight and obesity pose a major public health challenge. The development of these guidelines was a pioneering achievement since they were the first ever developed by the Institute using an evidence-based model and methodology,” said NHLBI Director Dr. Claude Lenfant. “This report will be an invaluable clinical tool for any health care professional who works with overweight or obese patients,” he added.

The guidelines are based on the most extensive review of the scientific evidence on overweight and obesity conducted to date. The review involved a systematic analysis of the published scientific literature to address 35 key clinical questions on how different treatment strategies affect weight loss and how weight control affects the major risk factors for heart disease and stroke as well as other chronic diseases and conditions. The guidelines present a new approach for the assessment of overweight and obesity and establish principles of safe and effective weight loss. According to the guidelines, assessment of overweight involves evaluation of three key measures—body mass index (BMI), waist circumference, and a patient’s risk factors for diseases and conditions associated with obesity.

The guidelines’ definition of overweight is based on research which relates body mass index to risk of death and illness. The 24-member expert panel that developed the guidelines identified overweight as a BMI of 25 to 29.9 and obesity as a BMI of 30 and above, which is consistent with the definitions used in many other countries, and supports the *Dietary Guidelines for Americans* issued in 1995.

BMI describes body weight relative to height and is strongly correlated with total body fat content in

adults. According to the guidelines, a BMI of 30 is about 30 pounds overweight and is equivalent to 221 pounds in a 6' person and to 186 pounds in someone who is 5'6". The BMI numbers apply to both men and women. Some very muscular people may have a high BMI without health risks. The panel recommends that BMI be determined in all adults. People of normal weight should have their BMI reassessed in 2 years. "The evidence is solid that the risk for various cardiovascular and other diseases rises significantly when someone's BMI is over 25 and that risk of death increases as the body mass index reaches and surpasses 30," said Dr. F. Xavier Pi-Sunyer, chairman of the expert panel and director of the Obesity Research Center, St. Luke's/Roosevelt Hospital Center in New York City.

"The guidelines tell the truth about the risks associated with unhealthy weight. We hope that physicians and the public will take the message seriously and use the guidelines to begin to deal effectively with a difficult problem," asserted Dr. Pi-Sunyer.

According to a new analysis of the National Health and Nutrition Examination Survey (NHANES III), as BMI levels rise, average blood pressure and total cholesterol levels increase and average HDL or good cholesterol levels decrease. Men in the highest obesity category have more than twice the risk of hypertension, high blood cholesterol, or both compared to men of normal weight. Women in the highest obesity category have four times the risk of either or both of these risk factors. The guidelines recommend weight loss to lower high blood pressure, to lower high total cholesterol and to raise low levels of HDL or good cholesterol, and to lower elevated blood glucose in overweight persons with two or more risk factors and in obese persons. Overweight patients without risk factors should prevent further weight gain, advise the guidelines.

In addition to measuring BMI, health care professionals should evaluate a patient's risk factors, such as elevations in blood pressure or blood cholesterol or family history of obesity-related disease. At a given level of overweight or obesity, patients with additional risk factors are considered to be at higher risk for health problems, requiring more intensive therapy and modification of any risk factors.

Physicians are also advised to determine waist circumference, which is strongly associated with abdominal fat. Excess abdominal fat is an independent predictor of disease risk. A waist circumference of over 40 inches in men and over 35 inches in women signifies increased risk in those who have a BMI of 25 and 34.9. According to the guidelines, the most successful strategies for weight loss include calorie reduction, increased physical activity, and behavior therapy designed to improve eating and physical activity habits. Other recommendations include:

- Patients should engage in moderate physical activity, progressing to 30 minutes or more on most or preferably all days of the week.
- Reducing dietary fat alone—without reducing calories—will not produce weight loss. Cutting back on dietary fat can help reduce calories and is heart-healthy.
- The initial goal of treatment should be to reduce body weight by about 10 percent from baseline, an amount that reduces obesity-related risk factors. With success, and if warranted, further weight loss can be attempted.

- A reasonable time line for a 10 percent reduction in body weight is six months of treatment, with a weight loss of 1 to 2 pounds per week.
- Weight-maintenance should be a priority after the first 6 months of weight-loss therapy.
- Physicians should have their patients try lifestyle therapy for at least 6 months before embarking on physician-prescribed drug therapy. Weight loss drugs approved by the FDA for long-term use may be tried as part of a comprehensive weight loss program that includes dietary therapy and physical activity in carefully selected patients (BMI ≥ 30 without additional risk factors, BMI ≥ 27 with two or more risk factors) who have been unable to lose weight or maintain weight loss with conventional non-drug safety and effectiveness beyond one year of total treatment have not been established.
- Weight loss surgery is an option for carefully selected patients with clinically severe obesity—BMI of ≥ 40 or BMI ≥ 35 with coexisting conditions when less invasive methods have failed and the patient is at high risk for obesity-associated illness. Lifelong medical surveillance after surgery is a necessity.
- Overweight and obese patients who do not wish to lose weight, or are otherwise not candidates for weight loss treatment, should be counseled on strategies to avoid further weight gain.
- Age alone should not preclude weight loss treatment in older adults. A careful evaluation of potential risks and benefits in the individual patient should guide management.

According to NHANES III, the trend in the prevalence of overweight and obesity is upward. The guidelines note that from 1960 to 1994, the prevalence of obesity in adults (BMI ≥ 30) increased from nearly 13 percent to 22.5 percent of the U.S. population, with most of the increase occurring in the 1990s.

“There are several possible reasons for the increase,” asserted Karen Donato, coordinator of the Obesity Education Initiative. “When people read labels, they’re more likely to notice what’s low fat and healthy, but may not be looking at calories. Also, more people are eating out and portion sizes have increased. Another issue is decreased physical activity. So people are consuming more calories and are less active. It doesn’t take much to tip the energy balance,” she said.

The upward trend in adult obesity has also been observed in children, notes the report. Since treatment issues surrounding overweight children and adolescents are quite different from the treatment of adults, the panel called for a separate guideline for youth as soon as possible. However, a healthy eating plan and increased physical activity is an important goal for all family members. With that in mind, the guidelines contain practical information on healthy eating. Based on this material, the NHLBI has developed consumer tips on shopping, eating, and dining out.

The guidelines have been reviewed by 115 health experts at major medical and professional societies. They have been endorsed by the coordinating committees of the National Cholesterol Education Program and the National High Blood Pressure Education Program, the North American Association for the Study of Obesity, and NIDDK Task Force on the Prevention and Treatment of Obesity, and the American Heart Association. These groups represent 54 professional societies, government agencies, and consumer organizations. *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults* will be distributed to primary care physicians in the U.S. as well as to other interested health care practitioners. It is available on the NHLBI Website. Single free copies of the consumer tips referred to above are available by writing to the NHLBI Information Center, P.O. Box 30105, Bethesda, M.D. 20824-0105. -15-

COMMITMENT TO LONG-TERM FOLLOW-UP

Gastric bypass has been shown to be very effective at inducing and maintaining major weight loss in severe obesity. After the initial high risk period, the long-term risks of gastric bypass are quite low. One major concern is the development of severe and sometimes devastating micronutrient and vitamin deficiencies. Some deficiencies can cause permanent neurological damage. Most studies suggest that these illnesses can be prevented by meticulous attention to aggressive vitamin, mineral, and protein supplementation. This commitment is lifelong.

Because many studies suggest that a high proportion of successful patients will tend to assume that they have returned to normal and stop taking their vitamins, it is very important that patients be willing to commit to long-term follow-up. Physicians encourage patients to take their supplements and to perform yearly monitoring of their blood levels to warn of impending deficiency states.

LONG-TERM FOLLOW-UP:

- ☺ Patient's Letter of Understanding states that they will stay in touch with our office and their local physician on a regular basis.
- ☺ Patient will notify our office and their regular physician of any changes in their address or telephone number.
- ☺ Patient will agree to meticulously take the appropriate multivitamin and protein supplements.
- ☺ Patients will arrange for yearly blood tests to allow monitoring of their vitamin and mineral levels and communicate results to our office.

LIFESTYLE COUNSELING:

Patients are to make an appointment with our Certified Fitness Practitioner through The Advanced Bariatric Center after having surgery. The Bariatric Preoperative Program will include nutritional counseling along with a one-half hour private fitness training session with body composition weights and measurements. We want to help you reach your best potential after your surgery. It has been our experience that patients who take full advantage of the program have the best long-term results. Because of this, the program is not voluntary, but is mandatory. A registered dietitian is available to help with nutritional questions. You may phone our office with questions for Dr. Felix, Dr. Swartz, or our staff.

ADVANCED BARIATRIC CENTER PROGRAM

We want to help you reach your best potential after your surgery. The many elements that make up the Advanced Bariatric Center Program provide the tools and the education to help you succeed with your bariatric surgery. It has been our experience that patients who take full advantage of the Advanced Bariatric Center Program have the best long-term results. Because of this, the program is not voluntary, but is mandatory.

Before your surgery you will have a preoperative appointment. This will be the longest appointment in our office. On that day you will meet with our fitness practitioner and with either Dr. Felix or Dr. Swartz. The fitness practitioner will give you a baseline reading of your weight and fat percentages before surgery to allow you to accurately monitor your progress after surgery. At your preoperative visit you will be given a packet of certificates. These are redeemable for an update evaluation of weight and body fat percentages, and a personal session with the fitness practitioner to learn exercises suitable to your particular needs. Other certificates may be included, as well as vitamins and supplement samples.

After surgery you will meet with a registered dietitian who will help you with nutrition questions. Making good food choices is very important after surgery. Remember, surgery is not a quick-fix. It is a tool for you to use to improve your life. You have lifetime access to our support group meetings. Log onto our online support group on the internet or attend meetings in our office. Please, medical questions should always be addressed to the office and not asked on the internet.

You, as our patient, have full use of our expertise and resources. We have tried to provide all the elements necessary to help you succeed. Out-of-town patients may, at times, call us for a "telephone visit" rather than travel to our office. Or, they may arrange to include their follow-up visit on the same day as their session with the fitness practitioner. Many out-of-area patients simply include a visit with us in their annual vacation plans.

As time goes on and you are experiencing more changes, you may want to sit in on another nutritional session or phone with exercise or lifestyle questions. In some cases, a physician referral may be helpful to another expert such as a psychologist or other healthcare professional. We will gladly assist you in any way we can.

HOW TO PREPARE FOR YOUR SURGERY

- **If you live out of town:** If you live a great distance from Fresno, we will be happy to work with you in scheduling your consultation visit the same day as a seminar. Patients who live more than an hour from Fresno must stay in town for 5-7 days after their surgery. Long trips put you at high risk for developing potentially dangerous, or even fatal, blood clots. We can provide you with a list of local motels.

- **Transportation home from the hospital:** You will need someone to drive you home from the hospital, whether you live out of town or locally.

- **Informed consent:** You must understand the goals, risks, and limitations of surgery-assisted weight loss. One or more meetings with your surgeon or his staff may be necessary to accomplish this goal. We require you to attend our seminar prior to having surgery, but not prior to your initial consultation. You must **carefully read all the literature given to you** and make sure that all of your questions are answered.

- **Initial consultation, evaluation of health status, including any additional evaluations:** Often, the patient must be referred to other specialists to be evaluated for other diseases. Please bring names and addresses of your doctors and specialists. If you have recently had a chest x-ray or EKG, arrange to have the reports forwarded to our office. This may reduce the waiting time for your surgery. We do **not** need your complete charts from other doctors. A lab slip will be given to you. This will include orders for blood tests, chest x-ray, and EKG. We have found that waiting to do this immediately before surgery sometimes requires canceling or postponing surgery due to abnormal laboratory tests. Getting these labs done before or immediately after your first consultation visit allows us to give you the best possible care.

- **Insurance company approval:** If you have insurance we must have their approval for surgery to take place and their approval may take weeks to receive. Our staff will do all they can to obtain this authorization, but the insurance situation may be beyond our control. **Approval does not guarantee payment from your insurance company.** We encourage you to call your particular insurance company and ask what amount, if any, will be your responsibility. There are far too many insurance plans for us to realistically be able to keep track of this detail. Again, we encourage you to check into this on your own.

- **When you have your surgery date**, call your primary care physician and arrange to have them help you closely monitor your medications for at least the first month after your surgery. Many medications, particularly for blood pressure and diabetes, need to be adjusted at frequent intervals during the first months postop.

- Before surgery we advise you to check with your pharmacist and doctors who prescribe your medications regarding the form the medication comes in. Some medications are too large for you to tolerate for a time after gastric bypass surgery. Liquids, chewables, patches, and small tablets are recommended until you are able to handle larger forms of medications. Some medications come in various forms or have equivalent substitutes that will be better tolerated. Also, if you take medications that contain aspirin or ibuprofen, or otherwise might cause stomach ulceration or bleeding, ask your doctor or pharmacist about alternative medications. We do not want you to take aspirin or ibuprofen (such as Motrin).

- **One to two weeks before your scheduled surgery date:** At this time you will have a preoperative office visit. This is for your final checkup to make sure it is safe to go ahead with your surgery. It is very important that you ask any remaining questions you may have before surgery. You will be given a laboratory slip for a current blood test. This should be done 5-7 days prior to surgery. At least one week prior to your surgery you should stop taking NSAIDS (includes aspirin, ibuprofen products, Naprosyn, and more). These thin the blood and can lead to excessive bleeding in surgery. Also stop all herbal supplements at this time (especially vitamin E). You may resume taking them one week after surgery. Taking your regular vitamins is encouraged.

- **Two days before surgery:** At this time you will be on a liquid diet, avoiding alcoholic beverages and all milk products (fruit juice, Jell-O, soup broth, and popsicles are okay). You will be required to purchase one bottle of magnesium citrate. This does not require a prescription. You will drink the magnesium citrate the day before your surgery. The night before your surgery you are to have nothing by mouth after midnight, including no water. If you are diabetic or if you take medications on a regular basis, ask Dr. Felix or Dr. Swartz and you will be given specific instructions.

IN THE HOSPITAL

- ❁ Wear loose, comfortable clothing to the hospital. Take pajamas or similar apparel for sleep – nightgowns are inconvenient.
- ❁ **Bring medications** you use on a daily basis, including inhalers and CPAP.
- ❁ You should arrive at the hospital at the time that will be given to you on your preop instructions.
- ❁ The nurses will check to make sure all the required laboratory tests are documented.
- ❁ Your anesthesiologist will speak to you before your procedure. If you have had any previous surgery and had problems with anesthesia, please discuss this thoroughly with the anesthesiologist.
- ❁ If you have developed any new medical problems since your preoperative office visit including, but not limited to, cold, flu, broken bones, etc., tell the nurse you need to speak to your surgeon before the procedure begins.
- ❁ After your surgery, pain medication will be given intravenously by means of a PCA, or Patient Controlled Analgesia, machine. By using this you can give yourself doses of pain medication when you need it and the machine will keep you from getting too much.
- ❁ You may receive oxygen for the first 24 hours. The nurses will show you how to cough and do your deep breathing exercises. These exercises are very important and should not be neglected.
- ❁ **Avoid sitting with your legs down whenever possible.** It is better to rest with your legs elevated whenever you are not walking. Lying down is okay. Do not ride in a car or sit (such as in a movie theater or sitting at a computer) for longer than 40 minutes without getting up and walking briskly for 10 minutes during the first two weeks after surgery. This helps prevent risk of blood clots. You are at high risk for developing dangerous blood clots for 4-6 weeks after surgery. Avoid long trips during this high risk period!
- ❁ On your first postoperative day, your bandages will be removed. Usually no more need be applied.
- ❁ While in the hospital, you are on a full liquid diet with no sodas and no dairy products. If your tray is wrong (and this does happen), do not hesitate to let the nurse know and she will order you a new meal.
- ❁ Be sure to ask hospital staff if you are unsure about anything. They are there to help you recover as quickly as possible.

FOLLOW-UP

After you are discharged from the hospital you will need to be seen in our office in one week. The appointment card for this visit is given to you at your preoperative visit. If you have no complications you will then be scheduled for a one-month and then three-month checkup. After that, we will see you in six months and then on a yearly basis indefinitely. We may have you get labs done before some of your appointments.

If you move out of the area we will forward your records to your new physician. It is very important that you are monitored by a physician. If you cannot commit to follow up you should not agree to have the surgery. Your need yearly labs drawn per bariatric protocol. Your regular physician will not order the correct tests. Please use the lab request from our office.

Gastric bypass surgery comes with no guarantee of success. It is up to you, the patient, to fully cooperate with your surgeon and primary care physician in changing your eating habits and getting regular exercise.

You will be given a full set of discharge instructions as to what and when to eat, especially for the first two weeks. Your cooperation is essential to your success. Each patient is an individual and you may be on a liquid diet for up to a month, depending on your individual recovery.

**If at any time you have a medical emergency call:
(559) 431-8446.
One of our surgeons is on call at all times.**

DISCHARGE INSTRUCTIONS

REMINDER: You must have someone drive you home or to your motel.

Cautions:

If a problem arises you are not sure of, call our office and we will do our best to help. The following are problems you should be aware of:

- ✘ You should NOT have high fevers over 101.5°, night sweats, or shaking chills. If your temperature is still over 101.5° after two hours, please call the office.
- ✘ You should be able to breathe comfortably without pain or shortness of breath. You should NOT be coughing up sputum or blood. Remember to breathe deeply and to cough and clear your lungs to help them to recover from your operation. Use your incentive spirometer (breathing toy) that was given to you at the hospital for at least two weeks following your surgery.
- ✘ Watch carefully for the signs and symptoms of infection: Rapid pulse rate of over 100 beats per minute that does not slow down; fever greater than 101.5°; chills; increased redness or pus draining from the incision sites; increasing abdominal pain; nausea; vomiting; shortness of breath; excessive bleeding at the incision site. Please call our office immediately if any of these symptoms occur.
- ✘ For the first week after discharge, to avoid dehydration you should sip a “liquid diet” each waking hour to take in enough fluid each day. Two quarts per day is recommended. If you get behind, do not try to take in large amounts to “catch up.”
- ✘ “Liquid diet” after surgery includes fruit juice, broth, and protein drinks. Coffee and tea are okay, but since caffeine is a mild diuretic, compensate for liquid loss by drinking extra non-caffeine fluids. After your first postop appointment you may be started on a “mush” diet which includes foods such as cottage cheese, yogurt, soft eggs (soft boiled, poached, scrambled), Cream of Wheat, oatmeal, and pureed foods without any lumps. Eat high-protein foods, not carbohydrate foods. Foods at this stage should be thinned enough so they will “pour” off of a spoon. Baby First foods are okay. Avoid milk and dairy products for at least the first two weeks, as these cause cramping and diarrhea in some patients. However, most patients do well with cottage cheese and yogurt at this stage. Again, strive for a high-protein low-carbohydrate diet.

Family members may think you are not getting enough to eat and may tempt or urge you to eat more. Resist this! If you are 100 pounds overweight you have enough extra calories in storage to support you for 6 months or more.

- ✘ Depression: You and your family need to be aware of the risk of depression in the recovery period. If these symptoms occur we need to be aware of them to discuss possible treatments. Watch for these signs of depression: Difficulty concentrating, remembering, or making decisions. Persistent feelings of sadness, anxiety, irritability, or excessive crying. Sleeping too little or too much. Excessive fatigue and decreased energy. Thoughts of suicide or death, feelings of helplessness, worthlessness, hopelessness, or guilt. Decreased interest in activities or pleasure, including sex. **Call our office if you experience these symptoms.**

- ✘ Do NOT smoke. Smoking even a little causes narrowing of your blood vessels which decreases circulation. This slows the healing process.

- ✘ You should not have burning, bleeding, or hesitancy when you pass urine. If this occurs, call our office.

Discharge Medications:

You will be given two prescriptions with a total of three medications (two medications if you have had your gallbladder removed). Follow the instructions carefully and do not allow others to use your medications.

The first prescription medication will be for pain and will be in liquid form. It will be Lortab, a liquid Vicodin, or a generic form of this. It is best to use liquid Tylenol instead for mild pain, as the Lortab causes constipation. The second medication, Urso, reduces the risk of developing gallstones. This medicine should be started one to two weeks after surgery. This is not prescribed for patients who have had their gallbladders removed. The third medication will be an antacid, Nexium or a generic, to help your new stomach adjust to acids. **Start taking this antacid and your multivitamins, calcium, and iron the first day after discharge.**

Use the vitamins in your preop bag – chewables for the first month, Dr. Felix Vitamins the second month. Multivitamins need to be taken throughout the day. Do not take them all at once. After the first month, you may switch to a soft gel-cap type of vitamin. If you buy over-the-counter vitamins after that, you should take 1 ½ dose per day. If you have any question regarding brands, our staff will be happy to help. Calcium citrate should also be taken daily. Regrettably, vitamins are not covered by insurance.

What to Expect:

- ✓ You should be alert and oriented, almost back to normal, the day of discharge. Tiredness is normal.
- ✓ You should walk often during the day and move about without dizziness or lightheadedness or excessive pain. Your amount of activity will be regulated by how good you feel. You may do light housework as tolerated with no heavy lifting or strenuous activity until you come in for your first postoperative visit.

- ✓ You will tire more quickly for a few weeks after surgery, but your energy level will increase as you recover.
- ✓ Bowel movements may be irregular. You should not allow yourself to become constipated. If you do not have a bowel movement in 3 days, call our office – do not wait longer. Drink non-sweetened fruit juices to help avoid constipation.
- ✓ Remember that you have a new and very small stomach. Eat and drink very slowly and only small amounts at a time. **Don't rush it.** Take time to chew your food very thoroughly. If you have pain or vomiting or a sensation that food is “stuck”, stop eating and remain in an upright position for 1 to 2 hours. If symptoms subside, start with liquids again and take Mylanta or a similar antacid, 1 tablespoonful every 2 hours. If vomiting persists, call our office. A doctor is on call 24 hours a day.
- ✓ If you experience faintness, confusion, sweating, rapid pulse and anxiety, with or without cramps, diarrhea, stomach rumbling or nausea, you may be suffering from “dumping syndrome.” The solution is to eat more slowly and avoid high calorie liquids (i.e. soda, milk shakes, or added sugar to tea or coffee). Allow at least 15 minutes between taking liquids and solids. Mixing solids and liquids can also cause you to regain your weight.
- ✓ There may be some clear or slightly bloody discharge from your wounds. This is normal. Shower without bandages and pat the areas dry. You will not need to apply further bandages. The Steri-Strips that are directly on the skin will fall off on their own. This is not a problem. There should be no foul odor or green-colored discharge from your wounds. If there is, call our office.
- ✓ Bruising around the wounds is normal and should decrease daily after the first week.
- ✓ There will be no restrictions on physical activity such as driving, household chores, or sex, but you should expect to be off work for 1 to 3 weeks, depending on your occupation. Use good common sense. **Remember, no prolonged sitting for 2 to 4 weeks after surgery.**
- ✓ At Week Four you should be able to start a solid diet. Start slowly and eat only a few tablespoonfuls at a sitting. Avoid meat that has not been ground or finely cut, and also fibrous foods such as canned spinach and citrus fruit pulp. Watch out for pits and seeds. Remember to leave a minimum of 15 minutes between your solids and liquids to avoid “dumping syndrome.” Remember to **chew, chew, chew.** Your new stomach and the opening to the intestine are very small and only well-chewed foods will pass through without causing problems. **CAUTION:** Be careful of what you put in your mouth. Chewing gum, large seeds, popcorn, and hard candy such as breath mints or Life Savers can become lodged and be dangerous.

- ✓ If you do not have a good tolerance to your solid diet, go back to liquids for a day or two and then try again. Patience is required. You are eating much less and much slower than you ever have before.
- ✓ Avoid high carbohydrate foods such as chips, popcorn, and pretzels. Eating snacks can cause you to regain your weight. Avoid breads, rice, and pasta. They expand and can cause potentially dangerous blockage. **Always eat your protein first, followed by vegetables and fruits.** This way, you get the protein and good nutrition you need and avoid too many carbohydrates.

DIET FOLLOWING GASTRIC BYPASS SURGERY

It is important for you to understand that not only must your calorie intake be less, but the quantity of your food, the consistency, and the types of foods you choose in the future are essential to your success. Our goal is to assist you by educating you on how your new stomach works best.

It takes about a month for your new stomach to heal 95%. During this time you need to be very aware that excessive eating is possible but dangerous to your health, as well as to your goal of weight loss. Before your stomach is properly healed, you could cause a leak by stretching the staple line to the limits or by stretching the pouch to a size so large that the benefit of the surgery is lost. No carbonated drinks.

Your new stomach holds about an ounce. This space should be filled with nutritious **liquids only** for the first week. After that you may add soft pureed foods such as baby food, cottage cheese, yogurt, and soft-cooked eggs. Cream of Wheat, oatmeal, etc., can be part of this diet for variety, but the majority of your food should be proteins. Foods should “pour” off of a spoon. The third week try one (soft) solid food at a time, such as well-cooked vegetables, tuna, or moist chicken. Cut the food into small pieces and chew, chew, chew. A meal is 2 to 3 tablespoons for the first 1 to 2 months.

Early dumping syndrome is caused by too rapid entry of hyperosmotic foodstuffs into the intestine, by either washing down solid meals with high calorie liquids (non-diet soda, coffee or tea with sugar, milkshakes) or overfilling the pouch. Your bloodstream sends fluids to dilute the food causing a rapid decrease in the volume of circulating blood and a rapid increase of fluid in the intestine. The distention of the intestine may cause nausea, cramps, diarrhea, and abdominal rumbling. The loss of volume from the blood

may lead to low blood pressure with faintness and compensating release of adrenaline which causes pallor, sweating, a rapid pulse, and anxiety.

Late dumping syndrome is when the foodstuffs enter the intestine rapidly, and glucose that results from their digestion enters the bloodstream rapidly. This results in an unusually high amount of insulin to deal with the glucose load. After the glucose has all been absorbed, insulin production may suddenly be too high for the decreased amount of glucose that is entering the circulation. The result is hypoglycemia, causing pallor, sweating, rapid pulse, anxiety, and sometimes even confusion. The digestive symptoms of cramping and diarrhea are usually avoided with late dumping.

The absorption of vitamins and minerals may be changed because food is bypassing most of the stomach and duodenum. You will need lifelong supplements of vitamins and minerals. For this reason, regular monitoring of your vitamin and mineral levels is essential.

Milk sugar (lactose) is difficult to digest. Milk sugar passes into the colon which is not designed to deal with it and where it is subject to fermentation by cooling bacteria. Nausea, cramps, gas, and diarrhea may result. For this reason, milk and milk products should be added *cautiously* no sooner than two weeks after your surgery. If they do not cause symptoms they may be taken freely. (Cottage cheese and yogurt usually do not cause these problems.)

A normal stomach grinds food up into tiny particles less than 1/16 of an inch. However, this is done in the lower part of the stomach where your food no longer goes. If you do not thoroughly chew your food, it may block the outlet of the pouch and make you vomit, or it may even have to be removed by special techniques such as gastroscopy. You must also not put anything indigestible into your mouth, such as a coin or gum. If accidentally swallowed, this could be disastrous.

Protein is important to your health. Each day you need to have a minimum of 60 grams of protein in your diet. The healthy food you eat helps, but you need supplements. You may take extra protein in the form of liquid, powder, or we have bars and cookies available. You need to have a protein powder or liquid at home when you are discharged from the hospital. A sample will be included in your preoperative package. You may also purchase this from us or from another source before your surgery. The other forms of protein may be added when your diet has advanced to the appropriate stage. Many protein supplements are high in sugar and carbohydrates. Look for high protein, low sugars, low carbohydrates. **READ LABELS!**

We have tried to cover as many of your questions about your

postoperative diet as possible. Please do not hesitate to ask Dr. Felix, Dr. Swartz, or our staff if you are unsure about anything regarding your surgery or recovery.

SERIOUS AND/OR LIFE THREATENING COMPLICATIONS

- ⇒ The risk of dying from Roux-en-Y Gastroplasty is slightly less than 1%.
- ⇒ About 10% of patients have some trouble with the lungs postoperatively and 2% develop pneumonia.
- ⇒ Perforation or leak from the surgical connections occurs in about 2% of cases.
- ⇒ The spleen (blood-filled organ next to the stomach) may be injured in 1-2% of cases, requiring removal of the spleen.
- ⇒ Gaseous distention of the lower part of the stomach postop is rare but may require re-operation for gastrostomy (drainage tube temporarily placed in stomach).
- ⇒ Pancreatitis.

PROBLEMS THAT ARE USUALLY LESS SERIOUS

- ⇒ Wound problems such as bleeding (2%) or infection (5%).
 - ⇒ Incisional hernia may eventually develop in about 10% of cases. This is similar to the risk of any abdominal incision in seriously overweight patients.
 - ⇒ The pouch opening (stoma) into the intestine may ulcerate (up to 15%) or narrow (stenosis) over time, causing excessive weight loss or persistent vomiting. An endoscopic procedure (EGD) can diagnose ulcers and treat stenosis. We prescribe a bedtime dose of a stomach acid blocker to help prevent ulcers. Re-operation is required in less than 2% of bariatric patients.
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- ⇒ Stenosis is a narrowing at the outlet of the gastric pouch. It usually

occurs between 4 and 8 weeks postop. Statistically, it occurs in less than 10% of gastric bypass patients. Symptoms include failure to advance the diet beyond soft, pureed foods; feeling like foods are getting “stuck”; vomiting (particularly a foam or white mucous). Notify the office if you think this might be happening. DO NOT wait until you can no longer keep down liquids or dehydration may result. Dehydration happens quickly and may become serious if ignored.

- ⇒ Vitamin or mineral deficiencies may occur. This is almost always prevented by taking multivitamins daily. Periodic checks are needed to detect deficiencies.
- ⇒ With rapid weight loss there is at least a 25% risk of gallstones. A medication to reduce this risk will be given to you. It should be taken daily for 6-12 months, as determined by the doctor. You may need your gallbladder removed at a later time.

NUISANCE OR TEMPORARY COMPLICATIONS

- ⇒ Dietary intolerance: These are almost universal but vary from patient to patient. Most patients cannot eat red meat, but most can eat chicken, fish, and ground meats.
- ⇒ Hair loss (20%) — both men and women.
- ⇒ Dry skin.
- ⇒ Menstrual irregularities.
- ⇒ Rib pain from retraction to expose the stomach during surgery.
- ⇒ Change in temperature perception.
- ⇒ Changes in interpersonal relationships (not always to the better) are also common.
- ⇒ Loose, unsightly skin. Insurance companies consider surgery for this to be cosmetic and will not, therefore, pay for this type of procedure.

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RISKS/COMPLICATIONS OF GASTRIC BYPASS SURGERY

- **Depression** Depression is a common medical illness and has been found to be particularly common in the first weeks after an operation.

- **Allergic Reactions** From minor reactions such as rash to sudden overwhelming reactions that can cause death.

- **Transfusion** Including hepatitis and Acquired Immune Deficiency Syndrome (AIDS) from the administration of blood or blood components.

- **Anesthetic** Used to put you to sleep for the operation, anesthesia can be associated with a variety of complications up to, and including, death.

- **Bleeding** From minor to massive bleeding that can lead to the need for emergency surgery, transfusion, or death.

- **Blood Clots** Also called deep vein thrombosis (DVT) and pulmonary embolus, this can cause stroke or even death.

- **Infection** Including pneumonia, wound, bladder, skin, and deep abdominal infections that can all sometimes lead to death.

- **Leakage** After operation to bypass the stomach the new connections can leak stomach acid, bacteria, and digestive enzymes causing a severe abscess and infection. This can require repeated surgery and intensive care or even death.

- **Narrowing** Narrowing (stenosis) or ulceration of the connection between the stomach and the small bowel can occur after operation, requiring endoscopy and possible dilatation.

- **Dumping** Dumping syndrome symptoms include cardiovascular problems with weakness, sweating, nausea, diarrhea, and dizziness.

- **Bowel Obstruction** Any abdominal surgery can cause scar tissue that can put the patient at risk for bowel obstruction.

- **Hernia** Any incision in the abdominal wall can lead to hernias.

RISK FACTORS

Many of the risks and complications of this surgery are detailed in the booklet you received from our office. These are found under the headings “Serious and/or Life Threatening Complications,” “Problems that are Usually Less Serious,” and “Nuisance or Temporary Complications.” They are summarized below.

- ✓ **Hair Loss** Many patients develop hair loss for a short period after the operation. This usually responds to increased levels of vitamins and protein but can be permanent.
- ✓ **Deficiencies** After gastric bypass there is a malabsorption of many vitamins and minerals. Patients must take vitamin and mineral supplements forever to protect themselves from deficiencies. Supplements include, but are not limited to, multivitamins, calcium, and protein.
- ✓ **Pregnancy** Vitamin and mineral deficiencies can put the newborn babies of gastric bypass mothers at risk. No pregnancy should occur for the first year after the operation and patients must be certain to inform their gynecologist of this surgery if they later become pregnant.
- ✓ **Laparoscopic Surgery Risks** Laparoscopic surgery uses punctures to enter the abdomen and can lead to injury, bleeding, or death. Other risks of this surgery include injury to the spleen, stapler malfunction, and the necessity to convert from a laparoscopic to an open procedure.
- ✓ **Death** The risk of dying from Roux-en-Y gastroplasty is slightly less than 1%. As with any surgery, there is this risk.
- ✓ **Other** Any major abdominal surgery, including gastric bypass, is associated with a large variety of risks and complications, both recognized and unrecognized, that may occur either soon after long after the operation. These include pneumonia, infection, blood clots, and leakage. Postoperative stenosis is not uncommon after this surgery and may require treatment. The occurrence of developing gallstones is increased with rapid weight loss.

YOUR PATIENT LETTER

YOU MUST WRITE THIS LETTER YOURSELF. SIGN AND DATE THE LETTER. ALSO HAVE SOMEONE WHO WILL BE CARING FOR YOU AFTER SURGERY SIGN THE LETTER. PLEASE BRING YOUR LETTER TO YOUR FIRST OFFICE VISIT.

To improve patient education and understanding, we require our patients to write a letter showing that they understand the possible benefits and risks of gastric bypass surgery. This requirement is based upon educational research showing that retention of information is improved by asking the learner to think about and write down the information.

Patients who are not able to understand enough to write a letter detailing the benefits and risks of the operation will be considered poor candidates for gastric bypass surgery. Patients must write their own letters.

LETTER MUST CONTAIN UNDERSTANDING OF:

- ✍ Morbid/clinically severe obesity
- ✍ Risks of obesity
- ✍ Expected benefits of surgery
- ✍ Possible risks of surgery (please list risks)
- ✍ How the operation is performed
- ✍ Why the operation is performed
- ✍ Operation may be done laparoscopically but may need to be done open.
- ✍ Alternatives to surgery
- ✍ Lifelong diet changes
- ✍ Possible depression after surgery
- ✍ Need for long-term follow-up, including yearly labs as directed by our office
- ✍ Need for vitamin and protein supplements lifelong

Please cover all of these points. If your letter does not demonstrate a clear understanding of all of these areas you will be asked to write another letter. It is very important that you fully understand the surgery and life changes that you are consenting to before you have this surgery. Be brief and to the point. Your letter does not need to be long.

