

HEALTHY STEPS* WEIGHT LOSS CENTER
MEDICAL CORPORATION

* SURGICAL TREATMENT OF EXCESS POUNDS

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ROUX-EN-Y GASTRIC BYPASS:

WHAT PATIENTS SHOULD KNOW BEFORE SURGERY

1. Reasons for Surgery

Weight loss surgery is a measure of last resort for people who really need to lose weight for the sake of their health. This drastic, life-changing, and potentially risky surgery is not designed to help a person lose 20 pounds to get ready for their 20th high school reunion! Neither is bariatric (weight loss) surgery a cosmetic operation: we're not out to create the next cover model for *Cosmo*! Rather, it is offered to individuals who are so overweight that their health and/or life expectancy is threatened. By the National Institutes of Health Consensus Conference Guidelines of 1991 which we bariatric surgeons follow, this is defined as:

- Body Mass Index (BMI) of 40 or greater (about 100 lb overweight)
- BMI of 35 or greater, if weight-related health problems already exist (such as diabetes mellitus, sleep apnea, or heart disease)
- Documentation that the individual has attempted structured or supervised dieting for a sufficient period, and, although perhaps temporarily successful at some weight loss, ultimately unsuccessful in attaining and maintaining a healthy weight.

Patients who are 100 pounds or more overweight have been shown in the medical literature a) to have a very low chance (less than 5%) of successfully losing sufficient weight to achieve a healthy weight, and b) to be more likely to suffer an early death through obesity-related health problems, including:

- type II diabetes mellitus
 - obstructive sleep apnea
 - osteoarthritis of weight bearing joints
 - coronary heart disease and congestive heart failure
 - hypertension (high blood pressure)
 - hypercholesterolemia (high cholesterol)
 - severe acid reflux disease
 - asthma
 - cancer (breast, gastrointestinal, uterine)
 - chronic venous insufficiency and blood clots (pulmonary embolism)
 - fatty liver disease
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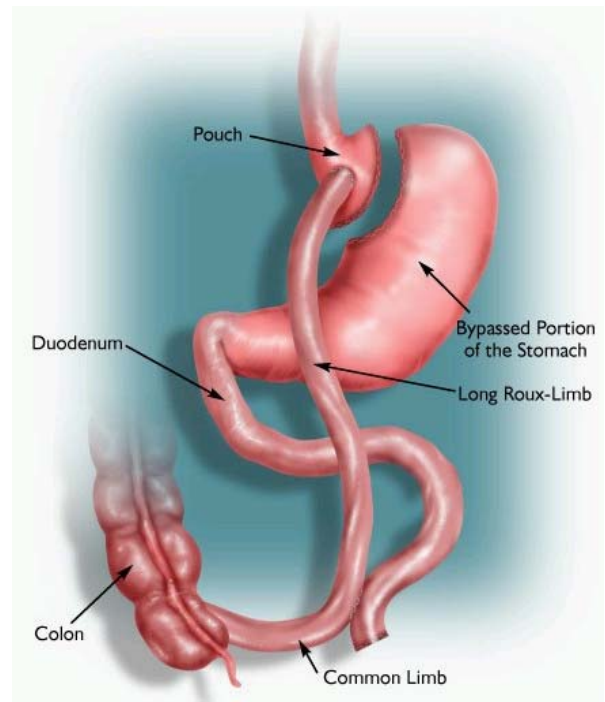
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Weight loss surgery has been shown to help cure, improve, or prevent ALL of these conditions, reduce medication needs, and in some studies actually prolong life in the process. In addition, weight loss surgery can help the obese individual achieve other goals: improved mobility, energy and level of activity; ability to “fit it” to society norms (theater and airline seats, public chairs, clothing, work requirements); and to enhance ability to perform activities of daily living (tying shoes, climbing stairs, playing with children/grandchildren). What weight loss surgery CANNOT promise: a) achieving a totally normal weight and body figure, b) cure of chronic pain (fibromyalgia, headaches, low back or neck pain) or dependence on pain medication, c) improving relationships with family members or coworkers, or fixing a bad marriage, d) cure of depression, substance abuse, or other mental illness, e) cure of cancer that is already present, e) making you happy, or f) achieving all its benefits effort-free: without any work or behavior changes on the part of the patient!

There are many accepted surgical options for long-term effective weight loss. These are discussed in detail on our website: www.healthystepsinfo.com . In the United States, 85% of bariatric operations are the Roux-en-Y gastric bypass, primarily due to its 20-year track record for a) effective, durable weight loss, b) improvement in health, and c) safety (lack of complications and side effects). Healthy STEPs Weight Loss Center performs laparoscopic Roux-en-Y gastric bypass as its preferred weight loss procedure. The laparoscopic approach offers the advantages of less pain, quicker recovery, and less chance of wound problems.

2. How the Operation Works

The Roux-en-Y gastric bypass works, essentially, by converting the normal stomach (generally the size of a football – holding up to a half-gallon of food), to a new, smaller stomach the size of a golf ball (which can only hold 1 – 2 ounces: about 3 tablespoons of food) by dividing it with a surgical stapler into two separate sections. This tiny new stomach pouch is then connected to a three-foot length of small intestine called the Roux limb (see diagram at right). Small amounts of food stretch the small stomach, signaling the brain you are full and satisfied, and this satisfied sensation lasts between meals because your surgeon creates a VERY small opening (one-half inch diameter) between your new stomach and the Roux limb.



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This causes the three-tablespoon meal to empty very slowly after you eat and keeps you from getting hungry between meals.

Downstream from the tiny stomach pouch and Roux limb, the large, excluded stomach and intestines are reattached with an opening so that all your digestive juices – stomach acid, bile from the liver, digestive enzymes from the pancreas – reenter your intestinal tract to start digestion and absorption of food. Malabsorption of food (primarily fat only) is a VERY small reason for weight loss after Roux-en-Y gastric bypass; most weight loss is due to restriction of food intake. You should note that, indeed, you are keeping your old stomach. It doesn't shrivel up and die, or develop ulcers or tumors. It continues to make digestive acid and other chemicals important to food absorption. The only difference is that your old "football stomach" can never receive food again.

3. Results of the Operation

In large medical studies of the Roux-en-Y gastric bypass, average weight loss is two-thirds of excess weight, which occurs over an eighteen month period, then stabilizes thereafter. For example, for a patient who SHOULD weigh 150 pounds but ACTUALLY weighs 300 pounds (150 lb overweight), average weight loss expected = 100 pounds. Although we have had many people achieve and maintain a normal weight, that is not our goal. Again, this is NOT cosmetic surgery! Losing two-thirds of excess weight after Roux-en-Y gastric bypass has been shown to a) cure diabetes mellitus (85% of patients), b) cure sleep apnea (95% of patients), c) cure acid reflux disease (98% patients), d) cure hypercholesterolemia (90% of patients), e) cure or improve osteoarthritis of weight bearing joints and hypertension (70% come off all medication for these conditions), and f) reduce the risk for heart attack, stroke, cancer, and early death from these conditions.

Weight loss is particularly rapid the first six months after surgery, then slows down to a few pounds per month until 12 – 18 months, when weight loss stops. During this time, the small, golf ball-sized stomach SLOWLY expands to its largest, ultimate size – usually about that of a tennis ball. At this point, the stomach can usually hold about a cup and a half of food. However, the golf ball stomach is not elastic enough to EVER stretch out to the size of a football again, so you should not regain weight after you've gone through all that work to lose it after surgery, AS LONG AS you adopt healthy eating habits (see paragraph 6 below).

4. Implications for Eating

You will NEVER eat a large meal again, for the REST OF YOUR LIFE. This is the sacrifice you are making with this operation – giving up large meals for the sake of your health, and since the operation is **IRREVERSIBLE**, you can't "take it back" later and have the procedure reversed to get your old friendly football-sized stomach back so you can eat

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large meals again. That reoperation would be too risky – more so than the first gastric bypass operation – and besides, all your weight and prior health problems would return.

You should realize, though, that your meals will NOT be only 3 tablespoons in size for the rest of your life. By the time your stomach slowly stretches to its largest size at 18 months, you should be able to tolerate about a cup and a half of food at a meal: for example, 3 oz chicken breast or half sandwich, plus a small salad. The key is that, during this process, you are redefining what a “normal” meal should be.

Because the patient’s food consumption after Roux-en-Y gastric bypass is so drastically reduced (only one cup per day TOTAL for the first few months), it is VERY important that EACH meal be nutritious. Of the three main nutritional components of food (that’s protein, carbohydrates and fat), PROTEIN is the hardest after surgery of which to get sufficient quantities, and therefore the one each patient needs to eat FIRST and FOREMOST at every meal for the first year. At least HALF of every meal should be protein during this time, and it should be eaten first, so that if you fill up early while eating, it is on protein, and not on some food less critical such as bread or fruit. As meals get somewhat larger, after a year or two, protein consumption is still important, but less critical. This means that you should ALWAYS & FOREVER approach each meal from a nutritional standpoint, avoiding “junk food” and ensuring you get at least three servings of protein per day.

In addition, every patient after Roux-en-Y gastric bypass requires two daily supplements: a) a multivitamin, which at a minimum should have 100% of iron, thiamine, B6, folate, B12, and niacin (chewables such as Flintstones™ or Centrum™ are encouraged during the first six months after surgery), and b) a calcium supplement (chewables are again encouraged – such as one chewable Calcium Citrate tablet, two chewable Calcium Carbonate doses (e.g. Caltrate or Viactive), or four Tums per day).

5. Complications and Side Effects

Roux-en-Y gastric bypass is major abdominal surgery, technically demanding, and performed in high-risk patients, and as such the potential for complications is real. The short-term complication rate (30 days after surgery) is about 10%, and the long-term complication rate (after 30 days from surgery) is about the same.

Certain short term complications can be dangerous, even life-threatening. The particular ones we are “on guard” to prevent include:

- Leakage from the staple lines or internal “plumbing connections” of the intestines that can lead to a dangerous abdominal infection called peritonitis. This often requires more surgery – sometimes open surgery – to repair.
 - Internal bleeding, which could result in transfusions or reoperation.
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- Blood clots in the legs (Deep Vein Thrombosis: DVT) which can break off and travel to the lungs, causing strangulation (Pulmonary Embolism: PE).
- Heart Attack
- Pneumonia

There is even a chance you could die from your weight loss operation. That risk is low – generally less than 1% - but we can never give to even the healthiest, most active and fit patient undergoing this surgery a 100% guarantee of survival.

Although we can prevent most complications through strict adherence to meticulous surgical technique and a proven, standardized care plan, nonetheless complications still happen on occasion, as each patient is different, each operation is slightly different, and each patient's ability to heal and overcome surgical "trauma" is different as well. We can never guarantee a smooth, complication-free postoperative course, only that your surgeon will there present and available to help you weather the course and get you through the rough spots if that is required.

Statistically the most frequent complication we see after Roux-en-Y gastric bypass is excessive vomiting, usually within the first six weeks after surgery. Five percent of patients undergoing Roux-en-Y gastric bypass (1 in 20) develop a stricture (excessive scarring) at the connection between their stomach pouch and Roux limb. This results in a pin-point opening and inability to tolerate any foods, liquid or solid. The solution to this problem generally does NOT require another operation, but rather upper endoscopy with balloon dilation (performed by inserting a flexible camera-tipped tube through the mouth into the stomach pouch, under sedation). We could prevent this complication in almost all cases by making a much bigger opening between the stomach and intestine; however, then the stomach would empty too quickly, patients would get hungry every two hours, and no one would lose weight.

Other long-term complications and side effects are rare. Ulcers can occur in the stomach pouch, more frequently than in the normal unoperated stomach, and can be largely prevented by avoiding alcohol, tobacco, and nonsteroidal medications (such as Motrin, Aleve, and Aspirin; we will provide you a list). Gallstones and hair loss can occur after any form of rapid weight loss, medical or surgical; we can help you prevent the former (but not do much more console you for the latter – and reassure the hair always comes back!). Nutritional deficiencies are rare (iron deficiency anemia is the most common – 3% of patients), but follow-up and blood tests are mandatory every six months for the first three years to monitor for potential problems.

6. Patient Responsibilities

Roux-en-Y gastric bypass is not a "Magic Cure" for obesity. It is a **TOOL**, and, as such, it is up to YOU to USE this tool in the right manner – both to lose weight and to stay

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healthy in the process. We, as surgeons, provide you with the tool, and we provide you with all the Instruction Manuals required as well as 24/7 Tech Support, but, ultimately, it is upon each patient's shoulders to put the Tool to use.

The pounds do not magically melt away after surgery, especially if patients resume the lifestyle that led to the excess weight problem. The Roux-en-Y gastric bypass tool requires each patient's participation, motivation, and, honestly, some **hard work** in order to produce results. The hard work is in the form of behavior modification – changes in your daily habits. The weight loss achieved through this tool allows the patient a second chance: to establish healthy daily habits that, if they become permanent lifestyle changes, will keep the weight off over a lifetime. The difference from other diets you might have tried, though, is that, this time, you are NOT HUNGRY, even though you are only eating tiny amounts of food, and, for once, you lose a **WHOLE LOT OF WEIGHT**, and **KEEP IT OFF**.

There are **three important principles** each patient must follow and adopt, in order to make this TOOL work for them:

- Eat nutritious food (PROTEIN) at every meal
- Get in and stay in an Exercise program: at least 3, preferably 5 days per week
- AVOID SNACKING

There are other important guidelines as well (such as: avoiding foods that cause “dumping” such as those high in sugar and fats, taking your daily vitamin and calcium, and keeping yourself hydrated – at least 1.5 quarts of water per day), but adhering to these three above will help you a) maximize your weight loss in the first year, and b) help you keep the weight off for years to come.

7. Getting Ready for Your Surgery Date

Most important: **Keep Your Weight Stable!** Most likely we have asked you to lose weight before surgery, in order to shrink your liver somewhat, thereby making it safer to operate. If we haven't made you lose weight to qualify for surgery, then for sure we have asked you not to GAIN weight, as additional weight, particularly in the two weeks before surgery, can actually cause the liver to expand and make the surgery more difficult and more risky. Therefore, be sure to monitor your weight and food intake between now and surgery, making sure that you do not GAIN weight before your surgery date. In particular, partaketh NOT in the Last Supper! Do NOT engage in a huge feast and/or banquet of all your favorite foods, to mourn their loss forever. Realize that, a year from now, you will still be able to eat all your favorite foods (just smaller quantities, of course). It's okay to eat your favorite foods before surgery, just in moderation, and if you should gain a pound or two in the process, be sure to lose it before your operation.

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On the day before your operation, drink clear liquids only. That, combined with two Fleets enemas the evening before surgery that we want you to take, will cleanse out your GI tract sufficiently to allow a safe laparoscopic operation. Take no food, liquids, or medications after midnight the night before your operation, unless we tell you otherwise.

Stay physically active before surgery, as permitted by your physical condition. Regular daily walking will help keep your heart, lungs, and circulation in top shape.

8. Your Bariatric Surgery Experience

After surgery, expect to wake up groggy, perhaps nauseated, probably with some degree of abdominal pain. These are all expected. Usually the nausea passes within two hours, and the pain improves remarkably within six hours. Expect an intravenous line (IV), a “Pain Button” you can press to administer pain medication to yourself through the IV (it will not allow you to overdose yourself), and a catheter in your bladder to monitor kidney function. You will also have special leg “stockings” that squeeze every few minutes to help prevent blood clots. These should be on and operational WHENEVER you are in bed in the hospital. You will probably not have a drain coming out of your abdomen, nor a gastric tube coming out of your nose, although these are occasionally necessary.

If you wake up with a large incision on your abdomen instead of five small ones, please realize we did our best to do your operation laparoscopically, but for your safety we opted to “go open.”

You may be sharing your hospital room with other patients. Please be flexible and open-minded in this regard. We try to get our patients the best beds that allow easy mobility and access to the bathroom, but hospital demands sometimes rightfully outweigh these concerns.

You will be required to get out of bed and walk the evening of surgery. Do not be surprised or think we are punishing you. Regular walking is one of the best means we have of a) expanding your lungs and preventing pneumonia, b) stretching out your cramped, traumatized abdominal muscles and reducing pain, and c) preventing blood clots in the legs. After the first evening, you will be required to walk at least four times daily.

If you generally use CPAP for sleep apnea, leave your machine at home. You will not need it for two weeks after surgery, as this pressurized air may put your new stomach pouch at risk. Sleep apnea patients will have their oxygen levels monitored at night while sleeping, to ensure they can go home safely without their CPAP. If required, we can arrange for temporary treatment with low-flow home oxygen.

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You will be allowed nothing to eat or drink for the first 24 hours after surgery. After that, your surgeon will decide when to begin your clear liquid diet, which you will continue for a week after surgery. We will not send you home unless you can keep yourself hydrated, able to keep down at least 1.5 quarts of clear liquids per day (water, juice, jello, broth, etc). **NO CARBONATED BEVERAGES.** Once home, you will continue this clear liquid diet for a week. There is no need to worry about vitamins or protein supplements until you are on the full liquid diet, which starts the second week after surgery.

If you are coming for surgery from a home location over 30 minutes away, we ask you to stay in the area of Santa Rosa for at least three days after surgery. That way, in the unlikely event a serious problem should develop, you are close by and we can help you. We have hotel and temporary housing recommendations available in our office.