

Overview of Bariatric Surgery

With more than 12 million Americans currently suffering from obesity, many people are experiencing the accompanying emotional, social, and physical problems that go along with being overweight. Obesity is one of the largest health threats in the world. In fact, obesity can cause many health problems including:

- Diabetes mellitus
- Premature wear and tear on joints, progressing to debilitating arthritis
- Increased risk of high blood pressure, heart attack, and stroke
- Increased rates of cancer
- Excessive snoring and nighttime gasping for air (sleep apnea)
- Infertility
- Irregular menstruation
- Skin problems from moist skin folds
- Psychological and emotional challenges
- Lowered self-esteem
- Death

At Santa Rosa Memorial Hospital, we understand the difficulties you may have had in trying to lose weight in the past. Our Surgical Weight Loss program combines a multidisciplinary approach of expert surgery, nutrition, exercise physiologists, counseling, and medicine to help you achieve your weight loss goals. In short, we are dedicated to providing you the safest, most effective weight loss surgery program tailored specifically to your needs.

If you are obese and have tried various diets and medications that have failed to help you lose significant weight, it may be time for you to take the next step. Please take a moment to look at our website for some of the latest information on bariatric surgery procedures.

To Find a Physician Who Performs Bariatric Surgery

For more information about the surgeons who perform bariatric surgery at Santa Rosa Memorial Hospital, please go to our online physician referral ([link to physician referral page](#)).

Disclaimer

Santa Rosa Memorial Hospital has made every effort to ensure that all the information on this site is accurate and current. However, because medical knowledge is advancing at such a rapid rate, we cannot guarantee that all the information contained here is up to date. The content of this website is provided for informational purposes only. It was written to provide information for patients who suffer from morbid obesity and who have had, or who are considering having, weight loss surgery. Reading the information on this website is not a substitute for a face-to-face consultation with a Bariatric Surgical specialist. Also, please remember that reading this website or e-mail contact does not constitute a doctor-patient relationship. Every person is an individual with unique medical issues that need to be considered thoroughly in the decision to have weight loss or any type of surgery. If you are interested in setting up a consultation to learn more about

the benefits and risks of weight loss surgery, please contact the Healthy Steps program at _____.

Types of Bariatric Surgery

Bariatric surgery is not cosmetic surgery. In fact, the science and medicine of successful weight loss surgery hinges on a number of critical factors. At Santa Rosa Memorial Hospital, we combine these factors into a surgery program that encompasses the entire person in a holistic surgical weight loss program.

At Santa Rosa Memorial Hospital, we provide two of the most successful and effective weight loss surgery procedures now being performed world-wide: Laparoscopic Roux-en-Y Gastric Bypass and Laparoscopic Adjustable Gastric Band.

Both surgeries are designed to help you succeed in limiting calories and losing weight safely, while breaking the cycle of weight gain that results in less activity.

Laparoscopic Roux-en-Y Gastric Bypass

The Laparoscopic Roux-en-Y Gastric Bypass involves creating a very small “mini stomach” about five percent of the original stomach size. This mini stomach is about the size of a golf ball (two tablespoons). The mini stomach is then connected to the upper small intestine to provide a path for food to pass down the digestive tract, once it leaves the new small stomach.

(Illustrations from slides)

There are many advantages and some disadvantages to this type of surgery. We will address these with you during the educational seminar that all patients attend as their first step.

Laparoscopic Adjustable Gastric Band

The Laparoscopic Adjustable Gastric Band surgery is performed laparoscopically and involves wrapping an implantable silicone band around the upper part of the stomach. This creates a small stomach “pouch,” similar to the Gastric Bypass, which leads to you feeling fuller faster. The band system then connects to an access port placed under the skin of the abdomen. In the surgeon’s office, fluid can be added or subtracted from the port, which causes the band to tighten or loosen. This allows us to tailor the characteristics of the pouch to achieve the best result.

(Illustrations from slides)

There are many advantages and some disadvantages to this type of surgery. We will address these with you during the educational seminar that all patients attend as their first step.

Some patients are only candidates for one of the operations. You and your surgeon will decide together which operation is best for you. Patients who have a choice of operations should keep the following in mind:

- Trading safety and risk for speed of weight loss
- Reversibility issues
- Comfort with continued follow-up with your surgeon

Both operations will help you to arrive at your goal of weight loss and good health, just by different routes.

(Show Comparing Weight-Loss Results slide from Power Point—Slide #21 on Patient Education Seminar Power Point)

Your Decision to Have Surgery

We understand that your decision to undergo Bariatric Gastric Bypass surgery for weight-control is an important one. That's why we want you to be informed regarding your options in having surgery, as well as the risks and consequences involved.

We also want you to be comfortable and confident in your surgeon and the entire bariatric surgery team as you undergo the process. Over the years, it has become clear that patients who are well-informed in their surgery choices, and comfortable with their surgeon, are more committed and successful to a lifetime program of necessary dietary regulation and exercise.

There are several points to keep in mind when deciding to have surgery:

- The surgery is simply a tool that each patient individually must learn to use.
- The changes in eating habits are permanent. Both operations create a life-long, enforced behavior modification.
- Unless a life-long program of nutrition, exercise, and social support accompanies the surgery, any weight reduction surgery can be defeated and weight can be regained.
- This is major abdominal surgery, and all surgery carries the risk of complications, both in the short term and in the long term. In some cases, the complications can even be life-threatening.

Qualifying for the Surgery

To qualify for Bariatric Gastric Bypass Surgery, you must meet the following criteria. You must:

- Have a BMI (Body Mass Index is a formula that takes into account both a patient's height and weight) of at least 40, or weigh at least 100 pounds more than your ideal weight, or have a BMI of at least 35 and you are suffering from serious health problems
- Be at least 18-years-old.
- Can provide documentation that you have 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.
- Have been overweight for more than five years
- Are prepared to attend regular follow-up sessions
- Are ready for a permanent healthy lifestyle

Risks

There are unavoidable risks with any abdominal surgery. In our surgeons' experience, and in national published medical results to date, these risks are not any higher than for other comparable major abdominal surgery. Nonetheless, there can be no guarantees against the

possibility of complications with any operation. Most recoveries from this surgery are smooth, but on occasion, problems can develop.

Benefits

Along with the risks, we also ask you to weigh the benefits of having bariatric surgery. There is growing evidence that a patient with continued severe obesity has ongoing significant medical health risks, including:

- Heart attack
- Congestive heart failure
- Stroke
- Hypoxia

After weight loss surgery, most patients have measurable improvements in obesity-aggravated medical conditions, such as:

- Diabetes
- High blood pressure
- Depression
- Joint Pain
- Infertility
- Acid Reflux
- Asthma
- Sleep apnea

Many patients also report an improved sense of well-being and improved self-esteem after surgery.

Of course, the final decision for surgery is between you, your family, and the surgeon. At its core, our program is designed to support you in this decision and, ultimately, alter the course of your life back to health.

Preoperative Preparations

Once you have decided on surgery at Santa Rosa Memorial Hospital, you and your surgeon will develop an extensive plan to prepare you for your surgery and help you make lifetime changes toward a healthy lifestyle. For your best success, we believe strongly that you *make some of these lifestyle changes before your surgery*.

In our program, you will attend pre-operative testing, lifestyle coaching, and activity counseling. You will also meet with a psychologist and undertake a formal dietetic evaluation. Attending a support group will also be part of your program. These initial steps are all designed to educate you on your weight loss path.

Additionally, patients who are smokers ***must quit smoking, for life, at least three months prior to surgery***. Chewing tobacco juice may also contribute to the formation of ulcers, one of the risks

of Gastric Bypass surgery. Therefore, patients ***must give up chewing tobacco beginning at least three months prior to surgery.***

Recovery from Surgery/Follow-up

After your surgery, you will recover for a few hours in our recovery area. After one to two hours in the recovery area, you will be taken to your hospital room. In some cases, the surgical team may elect to keep you in the Intensive Care Unit for the first day or two after surgery.

For a Gastric Bypass, the average length of stay in the hospital is two to three days, including the day of surgery. For a Gastric Band, you will generally go home the next morning, or in some cases, that same night.

Prior to discharge, arrangements will be made for a follow-up visit. Any necessary supplies and pain prescriptions will be provided. Generally, there are no stitches or staples that require removal.

Most patients with sedentary jobs can return to work in about 10 to 14 days. Patients with jobs that require heavy lifting need to plan on about 3 weeks prior to resuming strenuous exertion.

After your surgery, you will need to be followed-up carefully with periodic blood work and clinical assessments. For the first year after surgery, you will be followed-up frequently by your surgeon. At these outpatient check-ups, your surgeon will review your progress, answer any questions and review any problems you may have, and discuss what level of activity you are ready for.

The initial outpatient follow-up visit with your surgeon will take place one to two weeks after discharge, and then again approximately six weeks later. Further follow-up will then be based on your progress.

If you move out of the Santa Rosa area, your surgeon will assist you with arrangements for follow-up with physicians at your new location.

Meet Our Surgeons

Robert Woodbury, M.D., attended medical school at the Uniformed Services University of the Health Services in Bethesda, Maryland, graduating in 1992 and completed a surgery internship at the Naval Medical Center in San Diego. After his internship, he served a tour as a general medical officer with the U.S Marines before returning to complete general surgery residency in 1999. He was stationed at Naval Hospital Camp Pendleton and sent to the Persian Gulf in peacetime. Dr. Woodbury spent the last four years as surgical teaching faculty at Naval Medical Center in San Diego and was appointed Assistant Professor of Surgery in 2002. He was deployed in support of combat operations against Afghanistan in 2001 and in Iraq in 2003. He left active service in May 2004.

Dr. Woodbury has had extensive laparoscopic and bariatric surgery training. He is well versed in laparoscopic anti-reflux surgery, common bile duct exploration, and laparoscopic surgery of the colon, spleen, and hernia. He received additional post residency training at Scripps Clinic, Green Hospital in pancreatic and gastrointestinal surgery. As part of his residency, Dr. Woodbury received training in bariatric surgery with Pacific Bariatric in San Diego, focusing on Roux Y Gastric Bypass. He is a Fellow of the American College of Surgeons, Alpha Omega Alpha Medical Honor Society, and member of the American Society for Metabolic and Bariatric Surgery, as well as the Society of Laparoendoscopic Surgeons. Dr. Woodbury holds academic appointments as an Assistant Professor of Surgery at the Uniformed Services University School of Medicine and University of California, San Francisco.

Allen Cortez, M.D., graduated from the University of Michigan Medical School and completed his general surgery residency at the University of California Davis Medical Center in Sacramento, CA. Dr. Cortez is a Diplomate of the American Board of Surgery, a member of the Society of Laparoendoscopic Surgeons, as well as the American Society for Metabolic and Bariatric Surgery. He holds an academic appointment as an Assistant Professor at the University of California, San Francisco and is also closely involved with the Melanoma Program at Santa Rosa Memorial Hospital.

Frequently Asked Questions

How heavy must I be to be considered for surgery?

In most cases, patients who are accepted for surgery fall within the National Institute of Health guidelines, using a formula that takes into account both a patient's height and weight. This is called the Body Mass Index (BMI). Patients with a Body Mass Index of more than 35 are considered surgical candidates if they have health problems aggravated by their weight. Patients with BMIs over 40 are considered surgical candidates even if they have no weight-aggravated health problems. **(We have limited our care to those patients under 400 pounds** because patients over this weight present significant risks and have special needs. We would be happy to refer you to a center able to meet your needs.)

(BMI Calculator [here?](#))

How does the Gastric Bypass help a patient lose weight?

The weight loss effect of gastric bypass comes from a combination of (1) much smaller stomach capacity, resulting in feeling full much sooner (2) less hunger sensation for most patients, and (3) slightly quicker passage of food through the small bowel, resulting in less time for absorption.

How does the Gastric Band help a patient lose weight?

Once a band is properly adjusted, a patient will generally have a sense of fullness after only a small amount of food. This sense of fullness helps you stick to a good, low-calorie nutrition program.

How much weight will be lost?

The exact amount of weight which a patient will lose after any type of weight control surgery cannot be exactly predicted. As with any weight control plan, final outcome depends on many factors, such as activity, food choices, motivation, and age. However, the experience with our form of Gastric Bypass in the past several years is that most patients lose well over half of their excess fat in the first 12 to 18 months after surgery. Most patients with a gastric band will lose that weight in approximately 2 to 2.5 years. In our experience, highly motivated patients who participate in a good exercise and nutrition program after surgical recovery can often lose 75 percent or more of their extra fat. While there is the potential for minor weight gains, major weight regain is unlikely, provided that the patient does his or her part to follow good eating patterns and remain active.

Other than eating less, what foods will I have to give up?

We have found that all patients are different in food tolerance after surgery, so no exact statements can be made. In general, however, patients should avoid foods high in fat or sweets. High quality protein should be eaten first, and water or thin liquids should be avoided about 30 minutes prior to meals so that the pouch has room to hold the needed nutrition. High calorie thick liquids, such as smoothies or shakes, can get past the new pouch and potentially defeat the surgery. In addition, patients who have Gastric Bypass may develop “dumping syndrome,” which is a sensation of indigestion soon after eating this sort of food, often accompanied by cramping, lightheadedness, heart palpitations, and, sometimes, diarrhea. Whole milk, ice cream, and cream-based soups also often trigger these symptoms and may need to be severely limited or eliminated from the diet by many patients after gastric bypass.

Is pregnancy safe after gastric bypass?

We advise against becoming pregnant in the first two years after gastric bypass since the body is still adjusting to the new digestive arrangement. After the first year, pregnancy probably carries no greater risks to mother or unborn child than for a mother of similar age who has not had gastric bypass. However, there are relatively few studies on this point in the medical literature. Any gastric bypass patient who decides to try to become pregnant, or who finds herself unexpectedly pregnant should promptly register for prenatal care, and should make her obstetrician aware of her gastric bypass surgery. All gastric bypass women in whom future pregnancy is planned or possible should be very faithful to keeping up their vitamin and mineral supplements, including vitamin B12, to minimize the risk of fetal development problems which can sometimes result from inadequate trace elements in the mother.

What about pregnancy after gastric banding?

We prefer women wait at least two years before becoming pregnant. This is to allow for maximal weight loss before pregnancy. The patient should promptly begin prenatal care with an obstetrician. We will coordinate with him/her to potentially loosen the band to allow a more normal food intake. The patient will then need to continue healthy nutrition and activity to avoid excess weight gain during the pregnancy.

I have heard that my hair may become thin after weight-loss surgery?

It is not uncommon for patients to experience a phase of some increased brittleness or thinning of their hair in the early months after bariatric surgery. The causes for this are not fully understood, but may reflect a general response of the body to the many changes in nutritional balance and

nutritional stores that occur as the body loses large amounts of weight. Doing resistance training (weight lifting exercise) during the pre-operative phase may help this. Also, during the immediate post-operative phase we will encourage you to pursue moderate cardio exercise, and avoid strenuous resistance training until your rate of ongoing weight loss slows down. In our experience, hair thinning, if it occurs, is usually temporary, happens during the first few months after surgery, and is rarely severe.

Where will the incisions be made? How much of a scar will there be?

The incisions will be made in the upper abdomen, from the umbilicus (navel) upwards, and under both rib cages. All are about one inch in length. It should be noted that occasionally, for safety reasons, the laparoscopic operation must be converted to the traditional, “open,” operation. This is unusual and done only out of necessity to ensure the safety of the patient and the technical quality of the operation. It is not considered a complication. The patient would have a larger vertical incision in the abdomen, and need an extra 1 to 2 days in the hospital for pain control.

Will plastic surgery be needed for loose skin after I lose weight?

Some patients develop excessively loose skin on various parts of the body as major weight loss occurs. Many factors determine whether this loose skin can be toned back to satisfactory shape by exercise, or whether plastic surgery may be necessary to help. In general, younger patients, and those with less extreme obesity before surgery are more likely to be able to regain a satisfactory figure without plastic surgery. If plastic surgery is needed, the area which can usually be helped the most is to tighten the skin of the abdominal region by a so-called “tummy tuck”. In a few patients, breast lift or breast reduction, skin tightening of the upper arms, and skin tightening of the upper thighs may be considered.

Will bariatric surgery help my medical problems?

A number of serious and life-threatening medical conditions result from excessive weight gain, and can be successfully prevented and/or treated by weight reduction surgery. Adult-onset diabetes, obstructive sleep apnea, acid reflux, high blood pressure, joint disease, and others, can be drastically improved or cured by weight-loss surgery. Gastric bypass is especially effective for diabetes and reflux. Other conditions that this surgery help correct are stress urinary incontinence, infertility, and heart disease.

What general complications can result from gastric bypass?

The risk of short-term complications from this operation is low and includes internal bleeding, infection, wound problems, pneumonia, and hernia formation. Potentially life-threatening complications such as respiratory failure, pulmonary embolus (blood clots in the lung), and leakage from internal intestinal connections are also low. Occasionally open operation or re-operation is needed to address these complications. Long-term complications are rare, but may include stricture (partial blockage) of internal intestinal connections causing vomiting, ulcer formation causing bleeding, internal hernia formation, inadequate weight loss or recurrent weight gain, and malnutrition. It is always possible to develop unforeseeable complications.

What are the general complications of gastric band?

Short-term complications include injury to the stomach, esophagus, and other nearby organs. Longer-term problems are rare but may include band slippage or erosion into the stomach, port complications, such as infection, leak or malposition, and stomal swelling (a stoma is the opening is made from the pouch, or “new stomach,” to the small intestine).

Are there other weight control operations besides gastric bypass or band?

There are different weight-control operations that are done in different centers around the world. Other operations for weight control are “duodenal switch,” and “distal bypass.” These three operations all involve a greater degree of rearrangement of the small intestine, and create a greater degree of malabsorption of food. Sleeve gastrectomy, and implanted gastric pacemakers are other operations being studied. We continue to stay abreast of scientific advancement by participating in surgical meetings and conferences.

Resources

Support Groups

[Sonoma County Weight Loss Surgery Support Group](#), an independent group of patients awaiting, considering, and having undergone bariatric surgery, meets in Santa Rosa the second Saturday of each month. The group meets from 10 am to noon, at the Wells Fargo Center for the Arts (formerly Luther Burbank Center), 50 Mark West Springs Road, Santa Rosa, California. There is no charge for attending.

You can visit their website at: <http://www.sonomacountyrnysupportgroup.4t.com/index.html>

For patients in Lake County and eastern Mendocino County, there is a monthly Weight Loss Surgery Support Group meeting held at

Sutter Lakeside Hospital
5176 Hill Road East
Lakeport, CA 95453

The meeting is held in the Sutter Lakeside Hospital’s cafeteria the third Thursday of every month at 6 pm.

Related Links

American Council on Exercise (ACE)

This nonprofit fitness certification and education organization offers health and fitness tips, healthy recipes, articles about fitness training, descriptions and photos of several exercises, an online newsletter and more. Be sure to consult with your physician before participating in any form of exercise.

www.acefitness.org

American Obesity Association

The American Obesity Association promotes education, research and community action to

change our society's conception of obesity and to develop strategies to deal with this epidemic disease.

www.obesity.org

American Society for Metabolic and Bariatric Surgery

The American Society for Bariatric Surgery is an organization for surgeons and allied health professionals that provides education and support to advance the art and science of bariatric surgery.

www.asbs.org

Calorie Counter Database

Sponsored by About.com this website provides free weight loss tools, nutritional information, and access to a support network.

www.calorie-count.com

Ethicon-Endosurgery, Inc.

A division of Johnson & Johnson, this global medical device company's expertise includes the realm of bariatric surgery. Either of their weight loss surgery websites provides excellent comprehensive information about bariatrics.

www.weightlossurgeryinfo.com

www.bariatricedge.com

Exercise Prescription on the Net (ExRx.net)

ExRx.net offers extensive information about exercise science, diet and nutrition, aerobic and weight training and more. This site is great for more advanced exercise enthusiasts and provides answers to frequently asked questions, fitness testing protocols and more.

Be sure to consult with your physician before participating in any form of exercise.

www.exrx.net

Fitness Partner Connection Jumpsite!

In connection with the American College of Sports Medicine, this website features a calorie calculator for over 200 different activities.

<http://www.primusweb.com/fitnesspartner/jumpsite/calculat.htm>

Food and Nutrition Information Center (FNIC)

A nationally funded provider of online nutrition information, the FNIC website features a full alphabetical listing of nutrition topics, the USDA Nutrient Database for food analysis, a bibliography about dietary supplements, and much more.

<http://www.nal.usda.gov/fnic>

INAMED Health

For more than a decade, BioEnterics and now INAMED Health, a division of INAMED Corporation, has been an innovator in laparoscopic surgery and the treatment of obesity. The company's LAP-BAND® Adjustable Gastric Banding System has emerged as the preferred minimally invasive surgical treatment for severe obesity by international patients with a growing

demand in the United States.

<http://www.allerganandinamed.com>

LAP-BAND System

Allergan, Inc., with its recent acquisition of Inamed Corporation, is a global leader in developing, manufacturing, and marketing solutions for medical aesthetics and obesity intervention. For more than a decade, Inamed Health and now Allergan has been an innovator in the surgical treatment of obesity. This website gives consumer information about the LAP-BAND® Adjustable Gastric Banding System. <http://www.lapband.com>

NAASO, The Obesity Society

Since 1982, this leading scientific society encourages research on the causes and treatment of obesity, and keeps the medical community and public informed of new advances. NAASO publishes a professional journal called Obesity. This is a resource for online research and consumer access to a full library of free abstracts.

www.obesityresearch.org

National Heart, Lung, and Blood Institute

This national organization specializes in clinical research for the prevention, diagnosis, and treatment of heart, blood vessel, lung, and blood diseases; and sleep disorders. Their website provides health assessment tools, recipes, menu planners, guidelines on the evaluation and treatment of obesity, and information about specific conditions, like sleep apnea.

www.nhlbi.nih.gov

National Institute of Diabetes & Digestive & Kidney Diseases (NIDDK)

The NIDDK is a nationally funded organization devoted to clinical research. The health information section about weight control and physical activity contains multiple links to statistics about obesity, and information about normal digestion, surgical treatment options for obesity, references and reading lists, and more.

www.niddk.nih.gov

National Institutes of Health (NIH)

As part of the U.S. Department of Health and Human Services, the NIH is the primary Federal agency for conducting and supporting medical research. NIH scientists investigate disease prevention, as well as the causes, treatments, and cures for common and rare diseases. This website provides comprehensive health information, links to nutrition wellness and lifestyle topics, and a free weekly health newsletter.

www.nih.gov

Nutrition Data (ND)

This site provides a complete nutrient analysis for any food or recipe, and fast food facts for some of the most popular chain restaurants. This interactive site helps you select foods that best match your dietary needs.

<http://www.nutritiondata.com/>

Overeaters Anonymous

Overeaters Anonymous offers a program of recovery from compulsive overeating using the Twelve Steps and Twelve Traditions of OA. Worldwide meetings and other tools provide a fellowship of experience, strength and hope where members respect one another's anonymity. This interactive website has local meeting search
<http://www.oa.org/>

State Department of Agriculture (USDA)

For more information about the Food Guide Pyramid, healthy eating recommendations, and a detailed assessment of your food intake and physical activity level, refer to this website sponsored by the USDA.

<http://www.mypyramid.gov/>

US Obesity Statistics

This is part of the Weight-control Information Network (WIN), and is an information service of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). There is good general information here with BMI calculator, and a synopsis of known risks of overweight and obesity.

<http://win.niddk.nih.gov/statistics/index.htm>

Unjury

Unjury is the manufacturer and distributor of high-grade and good tasting protein supplements designed to meet the needs of patients with special requirements. Their website features product information, recipes, a calculator to assess your daily protein needs and another to determine your daily protein consumption. Bariatric surgery patients should be aware that their protein needs may be higher or lower based upon their procedure type and time after surgery. Be sure to consult with your medical professional before use.

<http://www.unjury.com/reg/calculator.shtml>