



Guidebook for Bariatric Surgery



FSRegional.com/Bariatrics



**FORT SANDERS
REGIONAL
MEDICAL CENTER**
Center for Bariatric Surgery

Updated Sept. 2022

Covenant
HEALTH.

Welcome

Patient Name

Surgery Date

PAT Date (Pre-Admission Testing)

Please Bring This Book With You To:

- Every office visit
- Every pre-surgical hospital visit
- The hospital on admission
- All support group visits
- All classes

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About Fort Sanders Center for Bariatric Surgery

Fort Sanders Center for Bariatric Surgery will help you improve your health and quality of life through weight loss surgery. This book contains an overview of information specific to our surgical weight loss program. We provide a comprehensive program of the highest standard and believe that education and preparation for weight loss surgery is the foundation for success. We also believe support after surgery is essential for long-term success. Please read and review this book carefully, and contact us with any questions. Plan to bring this handbook with you to all your appointments.

The bariatric surgeons at Fort Sanders are some of the most experienced bariatric surgeons in the East Tennessee region. Our weight loss team includes a nurse practitioner, bariatric nurses, a dietitian, an exercise specialist, and a behavioral specialist. The Center for Bariatric Surgery works in conjunction with Fort Sanders Health and Fitness Center’s RENEW program. They utilize personal trainers that will work with you after your bariatric procedure to help you achieve and maintain weight loss.



When excess weight is affecting your daily life or health, or if you are unable to lose or keep weight off through diet and physical activity, weight loss surgery can help you to achieve results. Medical problems such as sleep apnea, high blood pressure, diabetes, joint problems, depression, or a BMI of 35 or greater are other reasons to consider bariatric surgery and the resulting life long health improvements.

OUR VISION

Maximizing the quality and longevity of life for all individuals by eradicating obesity and related diseases.

OUR MISSION

To promote health and wellness by providing the opportunity to achieve an obesity-free life and empowering patients through life-long education, motivation and the highest quality medical care in a compassionate and supportive environment.

OUR VALUES

Our core beliefs promote the behaviors of integrity, compassion, commitment, hospitality, excellence, and respect to those that we serve.



Our Team

Dr. Mark Colquitt believes that long term weight loss cannot be achieved by surgery alone but through a three prong approach of focus upon the connection of mind, body and spirit. This approach has allowed his patients to lose thousands of pounds!



Dr. Mark A. Colquitt, MD, FACS, FASMBS

Dr. Colquitt was born in Knoxville, TN. He completed four years of active duty in the Navy as a surgeon prior to returning to East Tennessee in 1994.

Undergraduate:
University of Tennessee, Knoxville

Medical School:
University of Tennessee, Memphis

Residency:
Saint Mary's Hospital, Waterbury, CT; Yale University School of Medicine, New Haven, CT.

Board Certified:
General Surgery

Member:
Fellow, American College of Surgeons; Fellow, American Society of Metabolic and Bariatric Surgery; Society of American Gastrointestinal and Endoscopic Surgeons



Our team also includes:

Bariatric Coordinator, (865) 331-1385
Clinical Psychologist
Exercise Physiologist, (865) 531-5083
Nurse Practitioner
Operating Room Coordinator
Registered Dietitian, (865) 331-1535



Wendy Heidel, FNP

Contact Information:

Thank you for choosing the Fort Sanders Center for Bariatric Surgery for your weight loss surgery. If you have any questions about your pre-surgical guidelines or your post-surgical care, please feel free to contact:

Foothills Weight Loss Surgeons
Center for Advanced Medicine
1819 Clinch Avenue, Suite 200
Knoxville, TN 37916
865-984-3413

Introduction to Bariatric Surgery

A BMI above 40 indicates that a person has morbid obesity and therefore a candidate for bariatric surgery. Bariatric surgery may also be an option for people with a BMI between 35-40 who also suffer from obesity related health conditions such as diabetes, sleep apnea or heart disease. When other medically supervised methods have failed, bariatric surgery offers the best option for long-term weight control for those with clinically severe obesity.

Bariatric surgery has been endorsed by a consensus panel convened by the National Institute of Health (NIH) as the only effective means of inducing significant long-term weight loss for the vast majority of patients with clinically severe obesity.

The disease of morbid obesity interferes with basic physical functions. Long-term implications of the disease include shorter life expectancy and serious health consequences. Obesity is a serious public health issue in the United States. In 2018, the Centers for Disease Control and Prevention reported that 42.4% of US adults have obesity.

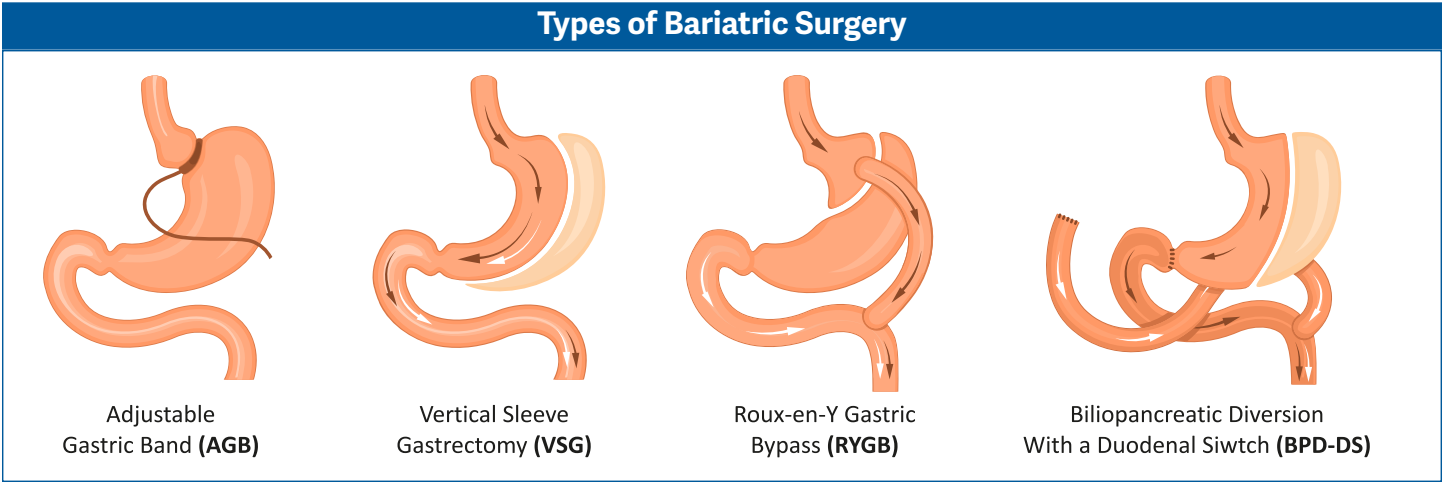
The medical importance of morbid obesity is that people who are very obese have higher rates of medical problems, translating into greater need for weight loss and more extreme measures (such as bariatric surgery) to control their weight. The medical complications of obesity may occur in moderately obese people but the frequency of these associated problems (such as heart disease, high blood pressure, diabetes, and certain cancers etc.) increases dramatically as weight increases. For example, very obese men between the ages of 25-35 have a 12-fold greater risk of dying prematurely compared to their normal weight counterparts.

A qualified **co-morbid condition per your insurance** is a health condition related to a disease such as obesity. There are many health conditions related to morbid obesity, but some of the most common are:

- **Type 2 diabetes**, which can lead to heart disease, kidney failure, blindness, amputation of the feet or legs and nerve damage.
- **Heart disease**, such as hardening of the arteries, heart attack and angina.
- **High blood pressure**, which can lead to heart disease, stroke, kidney failure and vision loss.
- **High cholesterol**, which can lead to heart disease, stroke and kidney failure.
- **Obstructive sleep apnea** has been associated with high blood pressure and is known as the "silent killer".
- **Osteoarthritis and joint pain**, which can lead to loss of mobility.

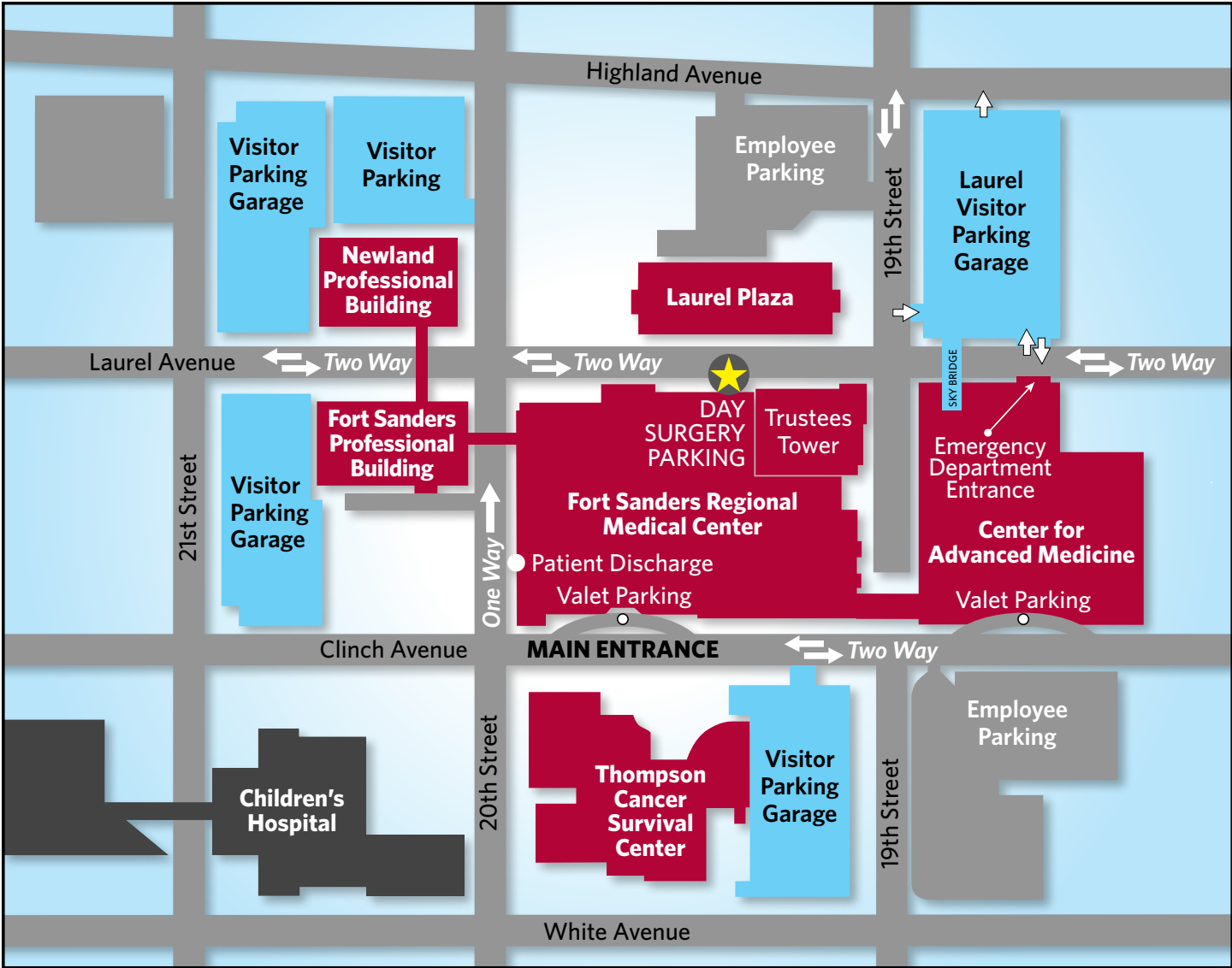
Other Co-morbid conditions that could be improved would be:

- **Stress urinary incontinence**
- **Depression**
- **GERD/Acid reflux**
- **Female reproductive disorders**



Map and Directions

The Bariatric Surgeon's Office is located in Suite 200 of the Center for Advanced Medicine (CAM) at 1819 Clinch Avenue. Below are directions to Fort Sanders Regional Medical Center and our campus. Parking is available in the Visitor Parking Garage.



Directions

From the West:

- Take I-40 Eastbound Lanes
- Take the TN-62 exit (exit number 387) towards 17th Street/Western Avenue
- Immediately get in the right lane
- Turn right onto 17th Street
- Turn right onto Highland Avenue
- Turn left onto 19th Street
- Garage entrance is on your immediate left

From the East:

- Take I-40 Westbound Lanes
- Take exit number 387 towards TN-62/17th Street/Western Avenue
- Turn slight right onto Ailor Avenue
- Turn slight right onto 17th Street
- Turn right onto Highland Avenue
- Turn left onto 19th Street
- Garage entrance is on your immediate left

From the South:

- Take the US-11 Kingston Pike/US-70 ramp
- Turn right onto Kingston Pike
- Turn left onto 21st Street
- Turn right onto Laurel Avenue
- Turn left onto 19th Street
- Garage entrance is on your immediate right

From the North:

- Take I-75 South
- Take I-275 S. toward Asheville
- Merge onto I-40 West
- Take exit number 387 towards TN-62/17th Street/Western Avenue
- Turn slight right onto Ailor Avenue
- Turn slight right onto 17th Street
- Turn right onto Highland Avenue
- Turn left onto 19th Street
- Garage entrance is on your immediate left

Requirements Prior to Weight Loss Surgery

Program Requirements

☐ Required weight loss: _____
Pre-Operative Goal Weight: _____

2 Week Pre-Operative Diet

- ☐ You will be required to do the 2-week pre-op diet
- ☐ You will not be required to do the 2-week pre-op Diet

☐ EGD

You will receive info by mail with the date of your procedure and the diet to follow the day before. Please review this information ahead of time

☐ Outpatient Testing

You will be contacted to schedule an abdominal ultrasound and upper GI X-ray. Please take the lab & EKG orders with you so testing is completed in one trip.

☐ Review of Findings

When your outpatient testing is complete, please call the Foothills Weight Loss office to schedule an appointment with Wendy to go over your testing results.

☐ Pre-Op Clearances

medical, cardiac, sleep study, _____

☐ Pre-Op Education

You will need to sign up for 1 Foundations for Success class and 2 support groups. You will also take a Pre and Post Op Expectations class before surgery.

☐ Smoking Cessation

If you use any tobacco or nicotine products, you will have to have a negative nicotine screen prior to scheduling surgery.

☐ Program Fee

The remainder of your \$500 program fee will be due prior to scheduling surgery.

☐ Guidebook & Patient Portal

Begin reading through your guidebook after your initial consultation. Set up the patient portal by following the instructions in the email received.

Insurance Requirements

☐ Nutritional & Physical Activity Assessment

You will be contacted to schedule a one-on-one nutritional consultation.

☐ Psychological Evaluation and Clearance

Please call (865) 382-7256 to schedule with Dr. Cox or You will be contacted to schedule with Dr. Devereaux

☐ Journey Program

Please enroll in the Journey Program by following the instructions included.

☐ Weight Loss Visits

You will need _____ months of physician supervised weight loss visits with your PCP.

☐ Letter of Medical Necessity

A letter of recommendation from your PCP will be needed for insurance. Please schedule an appointment and take the sample letter.

☐ Bariatric Resource Program

Please call 888-936-7246 to enroll in the UHC Bariatric Resource Program.

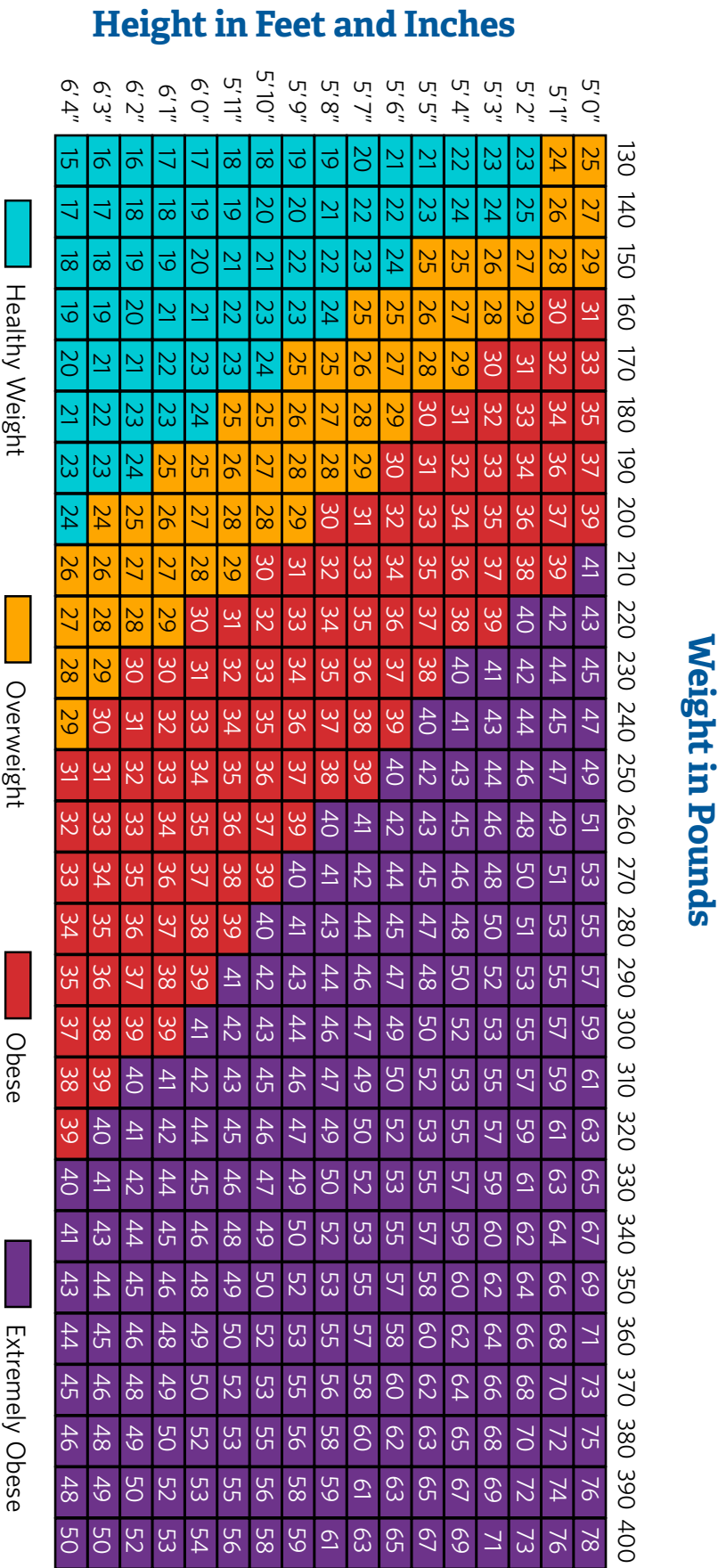
Gastric Bypass or DS Patients Only

☐ Extended-Release Medications

If you are having gastric bypass or DS, you will need to see your prescribing provider to change medications.

☐ If you live more than 50 miles from the hospital and have the bypass or DS, you will be required to stay in the Knoxville area for one week after surgery.

Body Mass Index (BMI) Chart



Role of Support Groups

Society and Food

Everything in our culture is centered around food. We are bombarded with advertisements. Restaurants are seldom more than a block away or a five minute drive from anywhere. Eating is often a social event and how we spend time with family. Eating is how we celebrate, how we romance and the one thing that consistently marks every significant event in our lives. If you made the decision to address your weight, you now no longer fit into this part of your culture. The good part is, with some sustained work, you will never fit into those big pants either. The people around you may not understand your food choices. They may be supportive of your efforts or they may resent that you do not celebrate food with them anymore. They may be your food police and monitor everything you eat, and you may be the one to resent their “help.”

Whether supported by family and friends or not, there is a place to turn – it’s your local support group!

Support Groups and Long-Term Success

Weight loss support groups are instrumental for long-term success. Throughout years of seeing individuals succeed and then struggle, one thing that most of them seem to have in common is that they are not well connected to a support group.

Simply, it is about “Keeping Your Head in the Game!” No matter how you choose to lose weight, significant weight loss produces dramatic changes in your life. However, changes are not made to your brain and how you think. No matter what, changes are difficult, but they are not unique. Others who have gone through this journey can help guide you through these changes.

Support groups offer the companionship, accountability and a healthy substitute for the prior unhealthy eating behaviors.

Those who have spent most of their lives in a battle against obesity are also in need of such support to conquer their addictions and change their behaviors. Support groups typically offer the same anonymity and acceptance found in 12-step experiences. Members share a similar history and unity in their weight loss journey.

The group offers an understanding not found in our homes, family and communities. Families are also welcomed in these support groups. They see the similarities in others and feel less alone. They also get support for themselves with the changes in their home when a loved one has changed their lifestyle and chosen to treat their obesity.

Regular attendance and involvement in support groups serve as a reminder of what you are supposed to be doing. Support groups keep you honest and accountable. You are reminded of the importance of portion control and physical activity. You learn tips that work for others and how to incorporate them into your life and family. You learn strategies and get advice but, most of all, you realize your are not in this alone.

So, “Keep Your Head in the Game!” Go to your local support group.

Helpful Information

Potential Changes After Surgery

Weight loss can offer many benefits, but the process also offers various challenges to overcome. Listed below is a partial list of possible post-surgery issues:

Hair Changes

A common fear and complaint of patients is post-operative hair loss. After surgery, hair shedding is associated with telogen effluvium, which can have both nutritional and non-nutritional causes. Due to major surgery and rapid weight loss, hair follicles may start to detach after 3-6 months. With time, patience, and adequate nutrition (protein and vitamins), hair should regrow after 6-9 months. However, you must let your team know if you experience difficulty eating, poor vitamin compliance, or hair loss more than one year after surgery.

Fertility Changes

If you were infertile or had trouble conceiving prior to surgery, this may change quickly following surgery, with even minimal weight loss. Pregnancy is not recommended for at least 18 months following bariatric surgery. Talk with the office or your OB-GYN for more information on effective birth control options. If you do get pregnant within a year or two after bariatric surgery, you should inform the office and make an appointment with the dietitian for bariatric pregnancy nutrition.

Changes in Mood

Weight loss surgery is a significant life event that’s often associated with the emotional struggles of obesity. With that said, many people experience mood swings and bouts of depression immediately after their procedure. These emotional fluctuations are completely normal and stabilize over time. It is important to recognize common symptoms of depression such as loss of interest in activities, feelings of hopelessness, anxiety, and thoughts of self-harm. If you are experiencing emotional distress after surgery, contact the office for local resources or referrals.

Diarrhea

Diarrhea after surgical weight loss can periodically occur. Contact your nurse and dietitian if you experience short-term diarrhea and your surgeon if diarrhea persists which can lead to severe dehydration. An over the counter anti-diarrheal may also be recommended.

Nausea/Vomiting

Nausea, a common side effect of anesthesia, can last for a period of time but usually subsides within a couple of days. Nausea may be coupled with vomiting. If nauseated, stop drinking or eating and allow the queasiness to subside before resuming liquids or foods. Be sure to chew food well and eat slowly. If nausea persists and prevents you from consuming fluids, please notify the surgeon.

Lactose Intolerance

Symptoms of lactose intolerance include bloating, cramping, gas and diarrhea. These symptoms occur when you consume cow’s milk or cow’s milk based products that contain lactose, a milk sugar. If your body is not producing enough lactase, an enzyme that breaks down lactose, these symptoms will occur. Substitutions for cow’s milk are soy milk, almond milk and Lactaid® milk. Contact your dietitian for more help.

Constipation

Constipation is usually due to lack of fluids, fiber or inactivity. To help relieve constipation, it is important to eat a balanced diet, drink fluids and stay active. A probiotic, a mild laxative, like Milk of Magnesia® or Miralax®, may be recommended by your surgeon.

Helpful Information

Hypoglycemia

Hypoglycemia is defined as a blood sugar level below 70mg/dl. Hypoglycemia symptoms include sweating, shakiness, weakness, headache, irritability, hunger, rapid heartbeat, pale skin and, in severe cases, confusion and lack of coordination. If any of these symptoms occur, check your blood sugar if you're able. Eating regular meals, consuming the appropriate amount of calories and avoiding simple carbohydrates can prevent hypoglycemia. If it should occur follow the "Rule of 15":

- Consume 15 grams of carb: 3 –4 glucose tablets, 1 tube of glucose gel, 1 tablespoon of honey or syrup or 4 ounces (1/2 cup) of juice
- Wait 15 minutes and recheck your blood sugar. Repeat if it is still below 70.
- Once your blood sugar is above 70, eat a meal or snack within an hour to prevent it from dropping again.

If low blood sugar is happening on a regular basis, let your medical team know. You may benefit from an appointment with the dietitian to discuss nutrition changes.

Plateaus

A weight loss plateau and, more specifically, a fat loss plateau should be defined as no change in body weight for 3 weeks. The first week may be because of water retention, along with the second week, but the third week indicates that maybe your body is not changing as you have hoped, despite your best efforts.

Before delving into some solutions to help you break your weight loss plateau, here are some important facts that you should know:

1. Weight Loss Plateaus are VERY Common

Weight loss plateaus are to be expected as you are losing weight. Our bodies are resistant to change. Many people on the journey towards reaching their ideal weight have experienced as many as 2-3 plateaus lasting several weeks. Remember changing our bodies is not easy.

2. The More Weight Lost means the more Weight Loss Slows

This comes down to simple mathematics. Example: Harvey is 230lb and loses 1% of his body weight in fat per week (0.5%-1% is a solid pace of fat loss). He would then lose approximately 2.3lb of fat per week until he weighs 200lb. Losing 1% of fat is now 2lb, or 15% less than 2.3lb. As Harvey's weight decreases, less weight would be lost as a percentage of his total body weight. Weight loss inherently slows down as he becomes leaner. As the pace of weight loss slows down, the body will work harder to hold on to its fat reserves.

3. Controlling the "Calorie Creep"

About 90% of all weight loss plateaus are related to "calorie creep," or generally, eating more calories than you think you are eating. Combined with a decrease in metabolism from weight loss, plateaus are almost a certainty.

The calorie creep can come from mindless eating, eating at restaurants that serve huge portions or from condiments like dressings, spreads and sauces. Maybe you don't realize that small 100 calorie bags of "healthy" chips are really 400 calories because there are 4 servings in each bag. Alcohol also goes on the calorie creep list.

The use of a food journal to track food and nutrition intake is recommended. This is the smartest and most important step you can take to improve your nutrition.

4. Physical Activity

While nutrition is likely the culprit for the stall in your weight, make sure you are adding to the intensity of physical activity to help improve results.

The preceding steps are strategies to assist in the breaking of weight loss plateaus. Most of the time a plateau results as a matter of not balancing calorie intake with calorie burn.

Tips:

- DO NOT think that you are doing anything wrong.
- DO NOT cut back on food volume.
- DO contact the office to ensure that your current diet and physical activity is appropriate.

Helpful Information

Weight Gain

Weight gain can occur after surgical weight loss if you are consuming too many calories, snacking inappropriately or not incorporating physical activity into your lifestyle. Physical activity is 50% of weight loss and 100% maintenance.

Successful weight loss and maintenance depends on your willingness to comply with healthy eating guidelines and physical activity.

If you get off track, please contact your team for an appointment.

Importance of Protein

After surgery, the daily protein goal is about 60-100g (depending on your surgery type). For some, reaching this target can be difficult. There are many ways to add this important nutrient into your diet. These include high protein food choices, protein shakes, protein bars and supplements.

Protein Shakes – It is recommended that you start sampling protein shakes prior to your surgery. Be advised, your tastes may change post-op. This goes for some beloved foods, too.

Make sure you have a variety of flavor options on hand when you get home from the hospital. You don't want to have to go shopping until you are feeling better. If you have a few different flavors or types of shakes, you can vary them to keep the flavors enjoyable.

Shakes taste best very cold but can also be made as a hot drink. If you'd like your shake hot, mix the powder with cold liquid (milk or water) BEFORE adding the hot liquid to prevent clumps! Also, try adding things to your shake to help change up the taste. Examples: Splenda®, ice, sugar free syrups, cinnamon or other spices, extracts found in the spice aisle and different types of milks, like soy or almond. Be creative!

If you are having problems with gas and bubbles in your shakes, make them and let them sit in the refrigerator for a while so that the bubbles dissipate.

Protein Bars – You may start using protein bars when you are on Phase 4 of your weight loss journey. Make sure when you are choosing protein bars, the ingredients fit into your daily budget of calories, fat, carbs and protein. A good rule of thumb is to find a bar where the grams of carbs do not outweigh the grams of protein. Also be sure that they are very low in sugar (4g or lower). Sugar alcohols are sometimes found in protein bars. These are okay, but can cause gas, bloating and upset stomach. Some people don't have issues with the sugar alcohols, so if you are not sure you may just have to experiment. Great brands include QUEST, Pure Protein, Premier Protein, Muscle Milk, Power Crunch, Think Thin, Zone Perfect, ONE, etc.

Protein Supplements – Because your protein requirements are quite high following surgery (60-100 grams/day), many patients consider a protein supplement, especially while they are adjusting their food intake. You want to get a supplement that will help you reach your daily targets but will not add high amounts of sugar to your diet.

For additional information and tips on protein shakes, bars, supplements and snack options, please refer to pages 25–26 for more information and tips on protein supplements.

Pre-Surgery

Pre-operative Checklist

Your pre-operative care will play an important role in the success of your surgery and recovery. The following guidelines will help you make the most of this time and ensure a smooth stay.

Your bariatric advocate will schedule a preadmission appointment with the hospital within 30 days of your surgery date. It is important to arrive on time for your appointment and to bring the following information with you:

- Your insurance card(s)
- Photo ID
- Co-pay, if applicable
- Advance Directives and/or Living Will, if applicable
- A list of all medications you are taking, as well as their dosages (including any over-the-counter medications, vitamins, or herbal supplements). If it is easier, you can bring your medications bottles and packages with you.
- A completed health history (a form is included with this folder)
- Any orders or papers the office may have given you

You do not have to fast for this testing unless specifically instructed to do so by your physician.

Pre-surgery Psychological Evaluation

A pre-surgical psychological exam is recommended for all patients by the National Institute of Health, most surgeons and most insurance companies. While 25% of Americans suffer from clinical levels of depression, approximately 90% of candidates for bariatric surgery report significant depression. We often make suggestions to help you through this process and have greater success post-operatively. Many insurance companies cover this evaluation, however, deductibles and coinsurance may apply. Please contact your insurance company regarding coverage of the evaluation and any out of pocket costs.

Day Before Surgery

- Clear liquids only the whole day before surgery. You are allowed to keep consuming clear liquids up until hospital arrival the next day.
 - Clear liquids include broth, popsicles, gelatin, and any sugar-free and caffeine-free beverages.
- Drink 2 bottles of Ensure Pre-Surgery the evening before your surgery. Drink your third and final bottle of Ensure Pre-Surgery on the way to the hospital for your surgery. This new Enhanced Recovery After Surgery (ERAS) protocol is to carb load your body for the stress of surgery.
 - You will receive the 3 bottles at your Pre- and Post-Operative Expectations class or at preadmission testing.
 - Drink the bottles quickly (within 5-10 minutes).

Surgery Day

On the Day of Your Surgery

On the morning of your surgery, wash your abdomen with the soap you were given at your preadmission appointment.

You may have been instructed to take some of your home medications on the morning of surgery.

Be sure to arrive at the hospital at the time given by your advocate or from your pre-admission testing appointment. Go to the first floor of the hospital and check in at the glass window of Day Surgery.

A family member can accompany you in the Day Surgery area while you are being prepped for surgery. Once you are taken to the operating room, family will be directed to the Surgery Waiting Lounge. Your progress through the surgery process will be updated on our surgery flow board. Surgery waiting lounge staff will also be able to provide updates on your progress. Following your procedure, your surgeon will talk to your family.

Some things the nurses will be doing in the preoperative area are:

- Complete your paperwork
- Have you change into a special gown
- Start an IV (intravenous) line
- Give you any necessary medications, such as antibiotics to prevent infections, IV acetaminophen to help with pain control and an anticoagulant (blood thinner) to prevent the formation of blood clots
- Apply a sequential compression device (SCD) or thromboguards on your legs. These are air filled stockings that alternate inflation and deflation to improve circulation and help prevent blood clots.

After Your Surgery

After your surgery, you will recover in the post anesthesia care unit (PACU). You will be monitored closely for changes in vital signs, level of consciousness and independent and effective breathing.

Our nursing staff will ask you to rate your pain. Do not try to be brave. Let us manage your pain so that your body can begin to heal. You may experience nausea and vomiting due to anesthesia. Your nurse can give you medication to help you with that side effect as well.

If you have been diagnosed with sleep apnea, plan to bring your C-pap machine and mask to the hospital. This will ensure that your oxygen levels remain healthy while you sleep.

Once discharged from the PACU, you will then be transferred to an inpatient room on 5West. Your nurse will monitor your vital signs, oxygen levels, pain and nausea/ vomiting.

While in the hospital, you will complete Phase 1 and start Phase 2 of your dietary guidelines. Refer to your phase section on **page 21–25** for more information.

You will get out of bed to walk every two hours

while in the hospital. The first time will be with a nurse. If you are stable, then your support person can walk with you. **This is essential, and there are no exceptions.** Walking will help relieve the CO2 gas pain and reduce risk of blood clots. The faster you are up and ambulating, the quicker you will begin your recovery. There may be minimum of walking laps required prior to discharge.

It is important to take deep breaths and use the incentive spirometer every hour while you are awake. This will help clear your lungs from the anesthesia. Take sips of water, no gulping, no ice and no straws. You don't want to over-fill your new, smaller stomach.

You may stay 1-2 nights in the hospital, depending on recovery or complications. There will be some restrictions on lifting, driving, swimming, working, etc. These will be discussed at discharge, classes, and/or office appointments. **If you live more than 50 miles from the hospital and are having the gastric bypass or duodenal switch, you will be required to stay in the Knoxville area for one week after surgery.** Your advocate will contact you for local lodging options.

Surgery Day

After surgery, you must follow-up with the Foothills bariatric office. You will follow-up at 1 week, 1 month, 3 months, 6 months, 12 months, 18 months, then annually for life. Follow-up appointments are very beneficial for long-term success: medical and lab monitoring, assessment for surgical complications, and weight loss maintenance. Referrals can also be made to see the nurse practitioner, dietitian, fitness center, and/or psychologist. If you move or change contact information, please let us know.

Please feel free to ask any questions related to your post-operative instructions. Be sure your family/ support person is aware of your post-operative needs as well. A section for your questions and notes can be found in the back of this guidebook. Be sure to write things down so you won't forget them!

WHEN SHOULD I CALL THE SURGEON?

- If you experience any of the following, call your surgeon's office:
- Severe or increasing pain that is not controlled by your pain medication.
 - Swelling, redness, increased tenderness or increased drainage around your incision sites.
 - Temperature above 101° F.
 - Nausea or vomiting that does not subside within 6 hours.
 - Trouble breathing/shortness of breath.
 - Excessive or uncontrolled bleeding from your incisions.
 - Dehydration (dark and infrequent urination)
 - Other medical-related questions or concerns

If you have questions or concerns, call the physician's office at 865-984-3413.

Bariatric Oral Intake and Activity Log

We want you to begin tracking your intake and activity before and after surgery. If you prefer tracking on paper, use the Bariatric Intake and Activity Log on the next page. If you prefer using a website or smart phone app that will analyze your intake, MyFitnessPal and other apps are free and user-friendly. Tracking your food intake will give you insight into many aspects of your eating habits. The more specific and accurate you are with reporting, the better your awareness will be of habits and choices.

Bariatric Oral Intake and Activity Log

Date: _____ / _____ / _____

| | |
|----------------|----------------|
| 1:00 AM _____ | 1:00 AM _____ |
| 2:00 AM _____ | 2:00 AM _____ |
| 3:00 AM _____ | 3:00 AM _____ |
| 4:00 AM _____ | 4:00 AM _____ |
| 5:00 AM _____ | 5:00 AM _____ |
| 6:00 AM _____ | 6:00 AM _____ |
| 7:00 AM _____ | 7:00 AM _____ |
| 8:00 AM _____ | 8:00 AM _____ |
| 9:00 AM _____ | 9:00 AM _____ |
| 10:00 AM _____ | 10:00 AM _____ |
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| 7:00 PM _____ | 7:00 PM _____ |
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| 9:00 PM _____ | 9:00 PM _____ |
| 10:00 PM _____ | 10:00 PM _____ |
| 11:00 PM _____ | 11:00 PM _____ |
| 12:00 AM _____ | 12:00 AM _____ |

Oral Intake:

Please mark the **number of oz.** taken in for hour time frame. Please mark if fluid was protein.

Total Intake : _____

Need 64 combined ounces daily

Activity:

Must walk every 2 hours no exceptions. Specify number of laps walked or approximate.

What To Do Following Your Surgery

Medication Safety Following Bariatric Surgery

Following your surgery and before you go home, someone should meet with you to discuss your former, current and future medication usage.

There are two main types of drug formulation: immediate release and extended release. Immediate release medications dissolve and get absorbed right away in the stomach. Extended release medications are delivered over an extended period of time and are delivered by different parts of your stomach and small intestine at different times. Because your stomach is a small pouch and your intestines are smaller, extended release medications are not absorbed properly and should not be taken with **gastric bypass and duodenal switch surgery** types.

It is important to tell ALL of your healthcare providers about your surgery and your medication needs.

Sleeve patients can use extended release medications, but they must remain intact. Look for “XR”, “ER”, “SR”, “DR” or “CR” on the label. These medications cannot be tampered with because too much medicine may be released into your system at once. Be sure to ask your pharmacist before opening products you purchase over the counter

The guidelines above are designed for patients immediately following surgery. As your recovery progresses, so will your ability to tolerate tablets, capsules and gels.

Drugs to Avoid

Tylenol® (Acetaminophen) is the pain reliever of choice. NSAIDS (i.e. Advil, Motrin, Naproxen, ibuprofen, Aspirin, BC Powder) can all cause ulcers in patients who have undergone bariatric surgery. 81mg coated “baby” aspirin is an exception. You may also receive Celebrex shortterm while in the hospital. **Certain medications should also be held prior to surgery:**

| Medication | Length |
|------------------------------------------------------------------|------------------------------------|
| NSAIDs (Motrin, Aleve, Advil, etc.) | 1 week |
| Coumadin® (Warfarin) | 1 week |
| Pradaxa® (Dabigatran) | 1-5 days (based on renal function) |
| Xarelto® (Rivaroxaban) | 1 day |
| Eliquis® (Apixaban) | 2 days |
| Plavix® (Clopidogrel) | 5 days |
| Effient® (Prasugrel) | 5 days |
| Brilinta® (Ticagrelor) | 1 week |
| Metformin® (Glucophage) | 2 days |
| Oral estrogen containing contraceptives and hormone replacements | 1 week |

Oral birth control may not work as effectively after surgery. Fertility increases as you lose weight quickly, and it's encouraged to wait 18 months post-op before trying to get pregnant. For that reason, use a backup barrier methods to prevent pregnancy. Examples include IUD and condoms. Discuss your options with an OB-GYN.

When you sprinkle or squeeze medications out of their original form, you will need to mask the flavor. A few options include mixing the medicine in Crystal Light® and water, or you can make a slushie out of a sugar free popsicle (don't chew the popsicle). Unsweetened applesauce is another option.

As you lose weight post-surgery, the types and dosages of medications you took PRIOR to surgery may change. Weight loss can improve the following conditions:

- High Cholesterol
- High Blood Pressure
- Diabetes

In fact, people with diabetes may need to learn how to manage LOW blood sugar (less than 70). If you experience low blood sugar levels, drink ½ cup of juice, 3-4 glucose tablets or 1 tube of glucose gel to raise blood sugar levels.

If you have any questions regarding medications, please talk to your prescribing provider.

What To Do Following Your Surgery

Constipation

Constipation is a common complaint after bariatric surgery due to decreased intake of food and water and increased intake of protein. In addition, symptoms may occur as a side effect of iron and calcium supplementation and pain-relieving medications. If you have chronic constipation and are prescribed medication for this, you should continue to take your medication if symptoms persist after surgery. Likely, once you begin adding fork tender fruits and veggies to your diet by phase 4, constipation issues will be less problematic.

How to Treat Constipation

- 1: Increase water to 64 oz daily
- 2: Increase activity such as walking to promote bowel motility
- 3: Add OTC powdered fiber supplements to water or unsweetened applesauce 1-3 x daily as needed (Benefiber and Metamucil)
- 4: Try OTC stool softeners such as Colace (docusate) 50-100 mg 1-2 x daily; Swiss Kriss natural laxative 2 tablets 1-2 x daily; or an osmotic laxative such as Miralax- 17 grams in 8 oz of water daily
- 5: F/U with your PCP to discuss a prescription medication for constipation if all other attempts fail. Medications such as Linzess, Amitiza, and Trulance have been shown to help.



Concentrated Sweets

Most of the foods and beverages that contain concentrated sweets are filled with “empty” calories in the form of sugar. These products provide calories with limited nutritional value and often do not contain the right amount of vitamins, minerals, protein and fiber. These nutrients are essential following weight loss surgery to help you recover and receive the nutrition your body needs.

Remember, every bite counts following your surgery. Filling up on these “concentrated sweets” can prevent weight loss by replacing healthier foods in your diet with high calorie, high sugar foods. Take a look at the concentrated foods/beverages list below:

| | |
|-------------------------------------|-----------------------------------|
| Ice cream/Sherbet/Sorbet | Regular Soft drinks |
| Sweetened, fruited or frozen yogurt | Sugared Tea/ Lemonade/Kool Aid® |
| Pudding | Snapple®/fruit drink/ fruit juice |
| Chocolate milk | Jelly/Jam |
| Dried fruit | Syrup/Molasses |
| Canned or frozen fruit in syrup | Table sugar |
| Honey | Cake/Pie/Cookies |
| Sugar-coated cereal | Candy |
| Doughnut | Regular Jell-O® |
| Popsicle | Sugar gum |

NOTE: Sugar substitutes, such as Splenda® or Stevia, are approved to use.

What To Do Following Your Surgery

Alcohol Consumption Following Surgery

Alcohol should not be consumed for at least six months after surgery. Some doctors recommend that patients stay away from alcohol and recommend not drinking and driving up to 24 hours after consuming an alcoholic beverage after surgery. Alcohol can cause stomach irritation and ulcers and slow the rate of healing. There is no nutritional value in alcohol.

Consuming alcohol can defeat the purpose of surgery. Alcohol converts readily into blood sugar which can slow down weight loss and can cause dumping syndrome. Dumping syndrome occurs when food is emptied into the small intestine too soon. The potential results of dumping syndrome are sweating, rapid heart rate, cramping, nausea and diarrhea. The stomach pouch created in the surgery is much smaller than a normal stomach, and patients have a tendency to become inebriated quicker.

The use of surgery is typically for those who have serious obesity problems. While the surgery typically helps patients with that problem, they can transfer their addiction to another vice, alcohol.

Substance Abuse and Mental Health Services Administration’s National Helpline, 1-800-662- HELP (4357), (also known as the Treatment Referral Routing Service) or TTY: 1-800-487-4889 is a confidential, free, 24-hour-a-day, 365-day-a-year, information service, in English and Spanish, for individuals and family members facing mental and/ or substance use disorders.

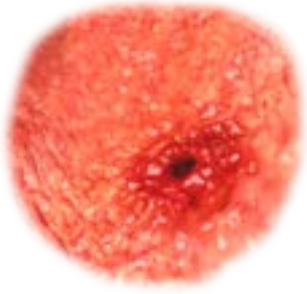
Should you decide to start drinking after surgery, wait for the appropriate recovery time. Once you resume drinking alcohol, drink only on rare occasions and drink only in small quantities to avoid quick inebriation, dumping syndrome and other potential problems.

Tobacco Use

If you use cigarettes, chewing tobacco, vape, or any form of nicotine, you must stop. Surgery will not be performed on anyone who currently uses nicotine. You must be completely nicotine-free prior to surgery based on your provider’s discretion.

Smoking increases your risk of experiencing the following surgical complications: blood clots, pneumonia, marginal ulcers, and surgical wound infection. Smokers have almost a 30% complication rate after weight loss surgery, which is astoundingly higher than the surgical complication rate for non-smokers. If you resume smoking after surgery, the chances of developing ulcers, bleeding and/or intestinal perforation increases dramatically.

Tobacco use is the leading cause of preventable death in the United States, followed shortly by obesity. If you are going through such lengths to get rid of one of these chronic issues, why would you want to keep the other? If you need help quitting, contact the office for information and resources.



Diet Progression after Weight Loss Surgery

Phase 1: Clear Liquids

While in hospital: Sips of room temperature water at first, then clear liquid tray ordered at night.

| Recommended | Not Recommended |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Clear liquids only - broth, sugar-free gelatin, sugar-free popsicles, water | Any solid food or thick liquids - sugar, pepper, milk, juice, regular gelatin, Italian ice, carbonation, ice |

You will also receive a packet of Juven, which is a therapeutic nutrition drink mix with a unique blend of key ingredients to support wound healing. Mix Juven into your water bottles.

No caffeine, chewing gum or straws for one month after surgery.

Phase 2: Protein Supplements

Begins day after surgery in the hospital. Duration - one week.

| Recommended | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Same clear liquids as above (decaffeinated, sugar-free, non-carbonated) Mix protein supplement with almond milk, soy milk, lactose-free low-fat cow’s milk, or water. You will be served Ensure Max protein shake while in the hospital. Include 2-3 protein shakes per day; it may be 2-4 ounces at a time. Try to consume 4 ounces of fluids between meals every hour to stay hydrated. For sleeve and bypass patients, goal is to aim for 60-80 grams of protein per day. For DS patients, goal is to aim for 80-100 grams of protein per day. | You are healing during this time, so do not advance too quickly unless directed by surgeon. Failure to comply may result in slower healing and your overall progress. To help meet protein goals, can use unflavored protein powder and/or protein water. Try to consume a sugar-free electrolyte beverage at least once a day for better hydration. Examples include G Zero, Powerade Zero, Propel, and broth. |

Note: There are many more protein supplements on the market. Use this criteria to find a supplement that fits within the program guidelines. Per serving: ≤200 calories, 20-30g protein, ≤5g fat, ≤10g total carbohydrate and ≤3g sugar.

Phase 2 - Sample meal plan:

| Meal 1 | Meal 2 | Meal 3 | Meal 4 | Meal 5 | Meal 6 |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 2-4 Ounces of Protein Supplement | 2-4 Ounces of Protein Supplement | 2-4 Ounces of Protein Supplement | 2-4 Ounces of Protein Supplement | 2-4 Ounces of Protein Supplement | 2-4 Ounces of Protein Supplement |

Diet Progression after Weight Loss Surgery

Phase 3: Soft Proteins

Begins: After you’ve met with your surgeon. Typically day 8 post-operation.

Duration: Is based on your progress. The surgeon will tell you when to progress to phase 4.

Eating Goals

- You will also begin taking your chewable vitamins at this time. Refer to vitamin supplements section for more information on needs.**
- 3 meals per day, NO snacks. If you are unable to meet your protein requirements through your 3 meals, add unflavored protein powder to your meals (mix in yogurt, cottage cheese, beans) or add ½ protein shake between your 3 meals.
- Take small, dime-sized bites • Chew thoroughly or mash with a fork.
- Stop eating when satisfied, even if you still have food on your plate. Throw the food away or give to someone else.
- Meal time should last about 20-30 minutes

| Recommended | Key Points |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Soft proteins- Canned chicken or tuna, scrambled eggs, hard boiled eggs, soft tofu, soft cooked plain beans, and low-fat dairy: light Greek yogurt, skim or 1% milk, reduced fat cheese, low-fat cottage cheese, low-fat ricotta cheese.</p> <p>Unflavored protein powder or plain Greek yogurt can be added to the following foods to make them a protein source: Unsweetened applesauce, sugar free pudding, strained soups (no chunks), vegetable juice, plain hummus</p> <p>Powdered peanut butter, such as PB 2®, can be added to protein shakes, yogurts, and puddings.</p> <p>Try to consume 4-6 ounces of fluids every hour between meals to stay hydrated. No drinking while eating or for 30 minutes after.</p> | <p>Not recommended: other meat, poultry, seafood, fruits, vegetables, starches/grains (potato/breads/rice /oatmeal)</p> <p>Yogurt should be blended and without any chunks or toppings.</p> <p>Food should not be dry or crunchy.</p> <p>If you notice that you don’t tolerate dairy products anymore, try adding it slowly back into your eating pattern. You can also use Lactaid® milk, Fairlife® milk or dairy-free alternative such as soy milk. Most patients do OK with cheeses and yogurt due to lower lactose content.</p> |

Phase 3 - Sample meal plan

| Breakfast | Mid-Morning | Lunch | Mid-Afternoon | Dinner |
|------------------------------|-------------------|-------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------|
| Scrambled egg with 2% cheese | 1/2 Protein Shake | ½ cup of tuna salad (canned tuna, plain Greek yogurt, and pickle juice) | 1/2 Protein Shake | ½ cup soft, cooked beans with a sprinkle of shredded cheese and dollop of plain Greek yogurt |

Diet Progression after Weight Loss Surgery

Phase 4: Beginning Solids

Begins: Typically one month post-operation. Await surgeon’s approval BEFORE progressing diet.

Gradually begin adding these food choices to your diet, but listen to your body for when you are full. If you are full, don’t force anymore food. Always listen to your body’s cues to signal fullness and stop when comfortably full. This is where tracking and journaling your intake is important. Some find it helpful to add one new food at a time. Remember to CHEW, CHEW, and CHEW – especially as you add more textured foods to your diet.

Use the “post-surgical plate” as your guide, which places an emphasis on eating protein first (for half of the meal) then fruit or vegetable.

You should try getting more protein from foods rather than protein supplements now. Ideally, you should not need protein supplements beyond 6 months post op. Any exceptions will come from your bariatric medical team.

| Recommended | Key Points |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Proteins - All foods from soft proteins (phase 3) plus tender and moist meat, poultry, and fish. Examples include chili made with lean ground meat and beans, thinly sliced deli meat, and chopped turkey breast with light gravy. Proteins should be non-breaded and non-fried.</p> <p>Sleeve and Bypass patients should consume 3 oz. cooked portions, and Duodenal Switch patients should consume 4 oz. cooked portions.</p> <p>Fruits and Non-Starchy Vegetables - These should be “fork tender” and non-breaded. Vegetables should be soft and well-cooked, such as canned options. Choose “No Sugar Added” fruit cups, canned fruits in their own juices (NO SYRUP), or thawed frozen fruit.</p> <p>Fats - Use mostly healthy fats such as tuna, salmon, avocado, or olive oil. For margarines and salad dressing, use 1 tablespoon (limit creamy dressings and watch sugar content).</p> | <p>Wait 3 months before trying tough meats (that require a knife), raw fruits, raw vegetables, nuts, and seeds.</p> <p>Start this phase with cooked and tender options. Use moist cooking methods for meats such as a slow cooker or pressure cooker. After 3 months, you can progress as tolerated. For example, start with cooked vegetables then steamed then raw.</p> <p>Keep in mind that starches are avoided the first 6 months after surgery because they are not essential to your nutrition at this time and may slow down your weight loss. Choose vegetable alternatives instead, such as cauliflower rice and zucchini noodles. Refer to Food Selection List for starch list.</p> <p>Fat portions should be small due to their concentrated calories and the possibility of dumping syndrome or rapid gastric emptying. 10 grams of fat at each meal will help prevent gallstones if you still have a gallbladder.</p> |

Diet Progression after Weight Loss Surgery

Phase 4 - Sample meal plan

Meal ideas for 1-6 months post-operation.

| | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Breakfast: Choose ONE <ul style="list-style-type: none">• Light Greek yogurt (12-15g protein),• ½ cup cottage cheese (14 g protein)• 2 eggs or 4 egg whites (12 g protein)• Soft protein bar | Lunch: Choose ONE <ul style="list-style-type: none">• 3-4 oz. chopped turkey breast in light gravy with 1/2 cup cooked broccoli• 3-4 oz. chicken salad made with low fat mayo or plain Greek yogurt with ½ cup unsweetened applesauce• 3-4 oz. tilapia with ½ cup cooked carrots• 3-4 oz. chili made with lean ground meat, beans, and canned tomatoes | Dinner: Choose ONE <ul style="list-style-type: none">• 3-4 oz. shredded pork tenderloin with ½ cup green beans• 3-4 oz. salmon with ½ cup zucchini• 3-4 oz. ground turkey patty with ½ cup mushrooms• 3-4 oz. shredded chicken with ½ cup cooked peppers and onions |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

DINING OUT? Try chicken salad in a cup, refried beans with cheese, chili, tomato or broth-based soups, soft steamed veggies, baked fish or thinly sliced deli meat. NO starches such as bread, pasta, or rice until 6 months.

Diet Progression after Weight Loss Surgery

Phase 5: Full Bariatric Diet

Begins: Typically six month post-op. Await surgeon’s approval BEFORE progressing diet.

After 6 months, you can start adding healthy starches (oatmeal, whole wheat bread, sweet potatoes, green peas, corn, whole wheat pasta, brown rice, quinoa, and flours.) back into your diet, but always keep in mind that protein should always be the first food you eat in a meal. A portion is 2 tablespoons, 2-3 crackers or 1/2 slice of bread.

Sample meals

Remember you will get the most satisfaction and fullness from solid foods. These examples can be used at any meal. Get creative, and add spices!

| |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Breakfast ideas: <ul style="list-style-type: none">• 1 scrambled egg and 1 piece Canadian bacon with no sugar added or “own juices” fruit cup• 1 poached egg and 1 Morningstar farm sausage patty with ½ cup blueberries• Light Greek yogurt with 2 tbsp. high fiber cereal added |
| Lunch ideas: <ul style="list-style-type: none">• Deli ham or turkey, salad with low fat dressing and 2 whole wheat crackers• Tuna salad, raw carrots and celery (chew, chew, chew) and ½ piece whole wheat toast• Morningstar Farm® veggie or black bean burger with ½ cup lettuce and salsa |
| Dinner ideas: <ul style="list-style-type: none">• Grilled chicken or fish, green beans, 2 tbsp. sweet potato• Tender steak, steamed broccoli or cauliflower (chew, chew chew) and 2 tbsp. quinoa• Center cut pork chop (don’t overcook), cooked zucchini, 2 tbsp. peas |

- At this point you know a lot about what you are able to eat. You will continue to learn on a daily basis. Most foods can be eaten at this point, but just keep in mind some of the things that you will always need to be careful with. The following are tips to follow indefinitely:
 - Chew all solid foods well.
 - Always be mindful of eating (meaning no multitasking during meals and snacks).
 - Stop eating when comfortably full - make this a habit for life!
 - Stay hydrated! 64 ounces of fluid per day is the MINIMUM need for most people. Water should be your main beverage forever.
 - Always take vitamins and mineral supplements.
 - Focus on having a high quality diet for life (i.e., colorful fruits, and vegetables, lean meats, beans, whole grains, using spices instead of salt and heart healthy fats). You have a small capacity, so make smart choices!
 - Continue to avoid sugary beverages and desserts as well as high fat foods.
 - Keeping a food diary is a good way to keep tabs on your intake and keeps you accountable.
 - Make activity a part of your daily life as this will lead to long term success - MOVING is a priority now!
 - Come to support group as often as you can! The more you attend, the more successful you will be!
 - Call your bariatric team for support and guidance on eating if you get off track. This is a lifelong journey, and we want you to succeed!

Food Selection List After Surgery

| Group | Food Choices and Servings | | |
|-------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lean Protein Group: 35-55 calories | Choose 3-4 oz. per meal and eat FIRST | Boneless skinless chicken or turkey breast Low-fat deli meat Seafood: tuna, salmon, cod, tilapia Shellfish: shrimp, crab, lobster Lean pork: tenderloin, chop, Canadian bacon Lean beef: sirloin, tenderloin | Egg substitute (1/2 cup) Medium egg (2) Light Greek yogurt (1) 2 soy sausage patties 2 turkey sausage patties 3 turkey sausage links Low-fat cottage cheese (1 cup) Tofu, edamame, tempeh, beans |
| Fruit Group: 60 calories | Choose 1/2-1 cup total per meal and eat SECOND | Apple Applesauce Apricots Banana Blueberries Melon Pineapple Plum Strawberries | Cherries Grapefruit Grapes Mandarin orange Peach Pear Prunes Raspberries |
| | | **fruits and vegetables should be soft and fork-tender **avoid raw fruits until 3 months post-op | |
| Vegetable Group: 25 calories | | Asparagus Beets Broccoli Cabbage Carrots Cauliflower Cucumber Eggplant Green Beans | Greens Lettuce Mushrooms Onions Scallions Summer squash Spinach Tomato Zucchini |
| | | **Remember: starchy vegetables are grouped into the "Starch Group" below **vegetables should be cooked, fork-tender **avoid raw vegetables until 3 months post-op | |
| Starch Group: 80 calories Not until 6 months after surgery | Choose 2 tbsp per meal and eat LAST | Brown rice Corn Corn tortilla Low sugar oatmeal Peas Potatoes (white and sweet) Whole wheat bread (1/2 slice) | Barley Cornstarch Flour (all types) Quinoa Whole wheat tortilla Whole wheat pasta Whole wheat crackers |

Food Selection List After Surgery

More Sample Menu Ideas

| | Breakfast | Lunch | Dinner |
|-------|------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Day 1 | 1-2 boiled eggs 1/2 cup raspberries | 2 oz turkey breast 1 slice low-fat cheese 1/2 cup cooked carrots | 3-4 oz. grilled tuna steak 1/2 cup grilled zucchini and onions |
| Day 2 | 1/2 cup cottage cheese 1/2 peach | 3-4 oz. of tuna salad 1 cups cherry tomatoes and cucumbers with vinegar | 3-4 oz. baked chicken breast 1/2 cup steamed vegetable medley |
| Day 3 | 2 turkey sausage links 1/2 pear | 3-4 oz. chicken salad 1/2 cup green beans | 3-4 oz. baked pork tenderloin 1/2 cup mixed greens 1/2 cup stewed apple |
| Day 4 | 1 Dannon Light and Fit Greek Yogurt 1/2 cup blueberries | 3-4 oz. shredded pork 1 cup light coleslaw | 3-4 oz. grilled sirloin steak 1/2 cup grilled onions and mushrooms 2 tbsp peas (after 6 months) |
| Day 5 | 1 Morningstar Farms Veggie Sausage Patty 1/2 cup strawberries | 1 Morningstar Farms Veggie Burger 1/2 cup green beans | 3-4 oz. crablegs (meat) 1/2 cup steamed broccoli 2 tbsp dried beans (after 6 months) |
| Day 6 | 1 oz of Canadian Bacon 1 poached egg 1/2 cup honeydew | 3-4 oz. crab salad 1/2 cup cantaloupe | 3-4 oz. center-cut pork chop 1/2 cup grilled onions and squash |
| Day 7 | 1/4 cup egg beaters Grilled onions and peppers | 3-4 oz. salmon 1/2 cup grilled pineapple | 3-4 oz. baked turkey 1/2 cup cooked carrots 2 tbsp sweet potato (after 6 months) |

Protein Shakes

- It is recommended that you start sampling these shakes pre-op, however be advised that your tastes may change post-op.
- Make sure that you have a variety at hand when you get home from the hospital. You don't want to go shopping until you are feeling better. If you have a few different ones, you can vary them since they get a little old after drinking them days on end.
- Shakes taste best very cold but can be made as a hot drink. If you want a hot protein drink, it is necessary to mix the powder with some cold liquid (milk or water) BEFORE adding the hot liquid. You will need to make it into a paste, then add the remaining hot liquid. If not mixed correctly, it will be a clumpy mess.
- Try adding things to your shake to help change up the taste for example: Splenda®, ice, Sugar Free Syrup (<http://www.davincigourmet.com/>), cinnamon or other spices, extracts found in the spice aisle and different types of milk like soy or almond.
- If you are having problems with gas and bubbles in your shakes, make them and let them sit in the refrigerator for a while so that the bubbles can dissipate.
- Do I need an expensive mixer to mix my shakes? Not really, but consider how often you will use and depend on the mixer. If you purchase a cheaper model, its life may be short lived due to how often you will use it. If you are on the run, consider a shaker bottle that can be found online, in the Foothills office or at GNC®/Vitamin Shoppe®.
- Many online bariatric sites have sample packs that can be purchased, or some will give them to you, that you can try. This will be great to try different proteins without having to get the whole keg full!
- Some local shops do accept returns on protein if you do not care for or tolerate the product. Our office can't accept open containers back due to regulations.
- Notice how many scoops are needed to fulfill the serving size listed on the container.

Protein Shake Guidelines

Per serving: ≤200 calories, ≤5g total fat, ≤10g total carbohydrate, ≤3g sugar, and 20-30g protein.

Where can I purchase protein supplements? What are some brand examples?

- | | |
|----------------------------|-------------------------------------------|
| 1. Unjury® | 6. Bariatric Advantage HPMR |
| 2. GNC® | 7. Celebrate Meal Replacement |
| 3. Vitamin Shoppe® | 8. Ensure Max |
| 4. Wal-Mart®/Target®/SAMS® | 9. Premier Protein |
| 5. Online | 10. Body Fortress Protein Powder |
| – bariatriceating.com | 11. Fairlife Nutrition Plan Protein Shake |
| – amazon.com | |
| – bodybuilding.com | |

Medical ID Bracelets

As a bariatric patient, you may want to consider getting a medical ID bracelet. If you can't speak for yourself, it will speak for you. The bracelet can communicate medical conditions and information to medical staff. Accidents happen far more than you think they do. Each year approximately 450,000 of us are taken to hospitals unconscious and without identification. Brands like ROAD iD work well!

If you get one, put the following information on it:

- Your Name
- Your Surgery Type:
 - Sleeve Gastrectomy
 - Roux-en-Y Gastric Bypass
 - Duodenal Switch
- No NSAIDs
- No Blind NGT
- (Plus anything else you want to add such as allergies, other medical conditions, emergency contact person, etc.)

Fluids

- **The general fluid goal is 64 fluid ounces or more a day.** It may take time to reach goal. You should get a minimum of 48 ounces of fluid daily.
- At least half of goal should be met with clear liquids. Protein shakes can count toward fluid goal.
- No drinking while eating or for 30 minutes after.
- Start drinking upon awakening, and sip slowly yet consistently for the rest of the day. This will be a fulltime job, so keep liquids with you at all times.
- Dehydration can occur if you don't meet your fluid needs. Here are some signs: dry mouth, thick saliva, chapped lips, headache, low urine output (less than 5x a day), and dark urine. Call the Foothills office if you are dehydrated.
- Try to consume a sugar-free electrolyte beverage at least once a day for better hydration. Examples include G Zero, Powerade Zero, Propel, and broth.

Supplements

Supplement Recommendations*

| Procedure Type | Multivitamin | Iron | Calcium | B12 | Vitamin A | Vitamin D | Vitamin E | Vitamin K |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------|----------------------|---------------|-------------|------------------|
| Gastric Sleeve | Bariatric formulated vitamin that includes Thiamin - at least 12 mg daily* Folic acid - 400-800 mcg daily OR 800-1000 mcg daily for child bearing females Copper - 1 mg daily Zinc - 8-11 mg daily | At least 18-60 mg daily** CANNOT take with calcium | 1200-1500 mg daily Take in divided doses Calcium citrate may be taken with or without meals | Oral: 350-1000 mcg daily | 5000-10,000 IU daily | 3000 IU daily | 15 mg daily | 90-120 mcg daily |
| Gastric Bypass | Bariatric formulated vitamin that includes Thiamin - at least 12 mg daily* Folic acid - 400-800 mcg daily OR 800-1000 mcg daily for child bearing age females Copper - 2 mg daily Zinc - 8-22 mg daily | At least 18-60 mg daily** CANNOT take with calcium. | 1200-1500 mg daily Take in divided doses Calcium citrate may be taken with or without meals | Oral: 350-1000 mcg daily | 5000-10,000 IU daily | 3000 IU daily | 15 mg daily | 90-120 mcg daily |
| Duodenal Switch | Bariatric formulated vitamin that includes Thiamin - at least 12 mg daily* Folic acid - 400-800 mcg daily OR 800-1000 mcg daily for child bearing age females Copper - 2 mg daily Zinc - 16-22 mg daily | At least 18-60 mg daily** CANNOT take with calcium | 1800-2400 mg daily Take in divided doses Calcium citrate may be taken with or without meals | Oral: 350-1000 mcg daily | 10,000 IU daily | 3000 IU daily | 15 mg daily | 300 mcg daily |

*At risk patients: rapid weight loss, protracted vomiting, the need for parenteral nutrition, excessive alcohol, neuropathy, encephalopathy, and/or heart failure. At risk patients need at least 50 – 100 mg of thiamin daily.

** Low risk patients (males and patients without a history of anemia need 18 mg of iron from their multivitamin. Higher risk patients (menstruating females who have had SG, RNY, or BPD / DS or those with anemia) need at least 45-60 mg of iron daily.

Supplements

Importance of Vitamin and Mineral Supplements Post-Op

- **You need supplements EVERY DAY to prevent serious deficiencies, which can and will happen with inappropriate vitamin supplementation. This is going to be a lifetime requirement.**
- Beginning 1 week post-operation (or after first visit with your surgeon), you will begin taking a daily bariatric formulated multivitamin. **Do not take children’s multivitamins, gummy vitamins, prenatal vitamins, vitamin patches, or general brands (One-A-Day or Centrum).** These do not have sufficient vitamin/mineral levels.
- Take 1500mg of chewable calcium citrate with vitamin D daily. Calcium citrate is absorbed better than calcium carbonate, so read your labels. For men or anyone prone to kidney stones, take 600-750mg chewable calcium citrate with vitamin D daily. If you are taking a bariatric-formulated multivitamin with iron, you will need to take it two hours apart from calcium citrate supplements due to competition for absorption in the body. In addition, dosages of calcium citrate should be separated into 500-600mg at a time. See below for example supplement schedule:

| 8am | 10am | 12pm | 2pm | 4pm |
|------------------------------|----------------------------------|------------------------------|----------------------------------|------------------------------|
| Calcium citrate – 500mg chew | Bariatric multivitamin with iron | Calcium citrate – 500mg chew | Bariatric multivitamin with iron | Calcium citrate – 500mg chew |

***Additional supplements may be required if lab values are low**

***This is only a sample schedule. Your schedule and dosage may be different based on what YOU purchase!**

Supplement Tips:

- Bariatric-formulated multivitamin must meet ASMBS vitamin guidelines. You should receive these guidelines in your Pre- and Post-Operative Expectations class.
- Multivitamin must be a chewable or soft chew for the 1st month after surgery. You can switch to capsule or tablet vitamins after the 1st month.
- You will need additional iron supplement and vitamin B12 if multivitamin does not contain it
- Brand recommendations: Bariatric Advantage, Celebrate, BariMelts, Bariatric Choice, Opurity, Bariatric Fusion, ProCare Health Bariatric, etc.
- If you have commercial insurance, you may be able to get bariatric vitamin coverage. This option will be discussed in your pre-operative classes.
- Your post-op bloodwork labs work should be fasting. If there are signs of deficiencies, your team may discuss additional supplement needs.
- **Duodenal Switch Special Note:** DS patients require lifelong supplementation of fat-soluble vitamins A, D, E, K. Inadequate supplementation of these fat soluble vitamins can result in severe medical complications. Review the list on the next page for signs and symptoms of deficiency. If you experience these symptoms or suspect fat soluble vitamin deficiency, please contact your surgeon. Additional supplementation may be required to correct lab values. Bariatric Advantage Advanced Multi EA meets the supplementation recommendations for DS patients. This supplement is sold in the office

Bariatric-formulated brands:

- Bariatric Advantage - www.bariatricadvantage.com
 - Bariatric Fusion - www.bariatricfusion.com
- Bariatric Pal - store.bariatricpal.com
 - Celebrate - www.celebratevitamins.com
 - Opurity - www.unjury.com

Supplements

Fat Soluble Vitamin Deficiencies

| | Symptoms and Health Risks |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vitamin A | <ul style="list-style-type: none">• Impaired night vision (night blindness)• Xerophthalmia – dry, thickened conjunctiva and cornea• Keratinized growths on the conjunctiva causing hazy growths• “Goose flesh” or “toad skin” – dry, scaly, rough skin• Impaired mucous membrane integrity causing increased risk of bacterial, viral, or parasitic infection• Prolonged vitamin A deficiency can cause blindness |
| Vitamin D | <ul style="list-style-type: none">• May not notice any physical symptoms initially• Cognitive impairment or difficulty thinking clearly• Unexplained fatigue• Osteomalacia – muscular weakness and bone tenderness with an increased risk of fractures, particularly in the wrist or pelvis |
| Vitamin E | <ul style="list-style-type: none">• May not notice any physical symptoms initially• Muscle weakness• Loss of muscle mass• Abnormal eye movement or vision problems• Changes in balance and coordination |
| Vitamin K | <ul style="list-style-type: none">• Blood clotting delay (uncontrolled bleeding)• Hemorrhaging in severe cases can cause fatal anemia |

10 Steps to Long Term Success

1. At first, your stomach will only be allowed to hold around 4 ounces (roughly ½ cup at a time). You will feel satisfied only after a few bites - do not overdo it.
2. Eat three small meals a day. **DO NOT GRAZE BETWEEN MEALS, AND DO NOT SKIP MEALS.**
3. Eat slowly (20-30 minutes per meal) and chew thoroughly (around 20 times a bite).
4. Stop eating as soon as you feel comfortably satisfied.
5. **Do not drink while eating.** Wait 30 minutes after eating to drink again.
6. Eat only good **QUALITY** food (with emphasis on protein first). Solid food is more important than liquid food. As your diet progresses from liquids to solids, try to get most of your protein from food sources.
7. **Drink at least 64 fluid ounces of water a day to prevent dehydration.** Signs of dehydration include: headache, dizziness, nausea, fatigue, whitish coating on tongue, infrequent urination and dark urine.
8. Drink only low-calorie or zero-calorie beverages. **No carbonation.**
9. **Physical activity for 30-60 minutes 5 times a week.** For the first 4 weeks, walking should be the main type of activity. Include strength training and more strenuous physical activity after receiving clearance to perform exercise. Usually, this occurs at your 1-month post-op doctor’s visit.
10. **You need vitamin supplements FOREVER to prevent vitamin or mineral deficiencies.**

Physical Activity and Exercise

What is Physical Activity and Exercise

Physical activity and exercise are often used interchangeably, but there is a difference. Both play a key role in your successful adoption of an active lifestyle and healthy living. Physical activity is easily defined as all movement that elicits energy expenditure. Exercise on the other hand is regarded as deliberate repetitive movement with the goal of maintaining or improving a component of physical fitness, or in this case the ability to conduct activities of daily life (ADL) with ease. ADLs require many components of fitness such as cardiorespiratory (aerobic) fitness (CRF), muscular strength and endurance, flexibility, and neuromotor fitness such as balance and coordination. These components should be included in a robust and comprehensive exercise program. Don't worry, you don't have to start doing all of this right now. New patients should begin increasing physical activity and engaging in regular exercise before surgery and continue a physically active regime following their procedure. Getting started is easy! Simply start with this adage, "Stand more, Sit less." See, you're already off to a great start. Be sure to start slowly, increasing time, intensity, and volume as you become more accustomed to physical activity.

Initially, the focus for our patients is to increase the amount of time spent conducting physical activity and implementing CRF or aerobic exercise. This is simply achieved by becoming more mindful of sedentary behaviors and beginning to stand more, and sit less. To start implementing CRF, begin by scheduling short duration aerobic activity, a couple times a week. For our purposes this should be brisk, deliberate activity that requires the heart and lungs to work harder to meet the body's increased demand for oxygen. This type of activity increases the efficiency of your body to deliver oxygen and remove metabolic waste resulting in an increased capacity to perform work, among other benefits.

Meaning, that you'll gradually find it easier to conduct ADLs such as collecting the mail, doing yard work, or brining the groceries in to be put away. Types of CRF to consider are walking, swimming or water aerobics, cycling, elliptical, or jogging.

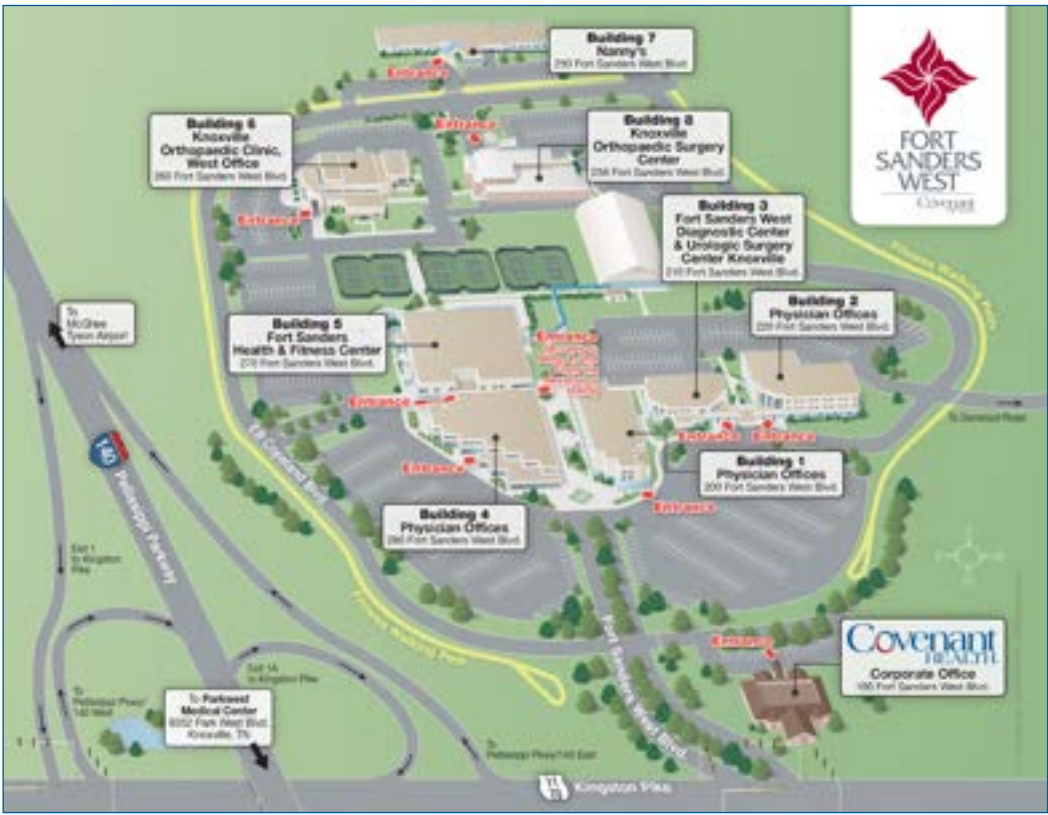
Patients are also encouraged to perform resistance or strength training to increase muscular strength and endurance. This type of training has been shown to increase bone strength and density preventing and improving osteoporosis, reduce the risk of developing Type 2 diabetes, lower the risk of all-cause mortality and cardiovascular disease events, and improve metabolism. In summary, this type of training allows you to do what you enjoy and maintain your independence longer. Resistance training should be incorporated slowly with a goal of 2-3 sessions a week.

A comprehensive program consisting of CRF or aerobic training, resistance training, flexibility, and neuromotor fitness such as balance and coordination training results in a significant increase in capacity to conduct ADLs. By adopting this type of program you'll gain the ability to maintain your independence later in life, decrease risk of cardiovascular disease events, decrease body fat, and increase basal metabolic rate.

Physical Activity and Exercise

Tips and Goals

- Start now and keep it up!
- Physical activity burns calories and preserves lean body mass (muscles).
- In the hours immediately following surgery, you will be encouraged to walk in the hospital. Walking and low impact physical activity should be continued for the first month with a 20lb weight restriction.
- Once cleared by your doctor (typically one month after surgery), your 20lb weight restriction will be lifted. Work to increase the intensity, duration, and frequency of your work outs.
- Goals: 30 minutes of moderate-intensity ("aerobic") activity at least 5 days a week. Include two days of "strength- training" activities, like free weights, machines, and resistance bands
- Use your free 6-month membership to Fort Sanders Health and Fitness Center. You will become a member of the RENEW Program, where you get group exercise sessions, wellness coaching, personal trainer, and much more



FORT SANDERS
Health & Fitness
CENTER
A FIVE STAR CLUB ★★★★★
Covenant
HEALTH
270 Fort Sanders West Boulevard, Knoxville, TN 37922
fshfcknoxvillegym.com

Physical Activity and Exercise

Four Steps to Achieve a More Active Lifestyle

To help you get started on your new physical activity program, try the following four steps to measure your progress.

Step 1: Set Personal Goals

- Set S .M .A .R .T . goals (Specific, Measurable, Attainable, Relevant, and Timely) Example: “I will increase my physical activity for energy by walking Monday, Wednesday, and Friday for 15 minutes. I will start today and have this goal accomplished by the end of the month.”
- Write your goals down so you can refer back to them for encouragement.
- S.M.A.R.T. goals can be used for all aspects of behavior change and lifestyle modification. See where else you can implement them!

Step 2: Determine How to Achieve Your Personal Goals

- Choose activities that fit your lifestyle.
- Incorporate cardiovascular, strength and flexibility activities into your plan. Examples:
 - Cardiovascular - walking, biking, treadmill, water activity
 - Strength Training - weight machines, free weights, resistance bands
 - Flexibility - stretching after physical activity
- Schedule time for your physical activity
- Choose a location for physical activity: home, work, park, gym, mall, church, etc..

Step 3: Implement Your Plan

- Make a commitment and start today.
- Get started slowly and pace yourself.
- Stay consistent.
- Fit physical activity into your daily routine.

Step 4: Regularly Evaluate Your Plan

- Discuss your program with the exercise physiologist or doctor.
- Monitor your progress.
- Recognize achievement of your goals.

Foundations for Success



- Please silence and put away cell phones. Pictures are allowed as needed.
 - Bathrooms are across the hall.
 - Masks must be worn above the nose throughout the entire class unless taking a quick drink.
- Class will be around 2 hours with support group to follow.

Foundations for Success Basic Lifelong Nutrition and Physical Activity

