

BARIATRIC SURGERY PATHWAYS TO SUCCESS:

**“Combining Surgery, Diet, and Exercise to
Change Lives”**



Bay Surgical Weight Loss
Bay Surgical Specialists
(727) 821-8101
(727) 825-1357 (fax)

MY
Bariatric Team

Bariatric Surgeons Dr. K. Huguet & Dr. G. Rossidis

Physician Assistant Jenna Tew, Jennifer Gill, Jennifer Broderick

Bariatric Surgery Coordinator Meghan Collins

Bariatric Coordinator with Bay care Fran Russell



My Life Goals After Surgery

I want to be able to enjoy:

1. _____
2. _____
3. _____

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Liquid Diet **BEFORE Weight Loss Surgery**

All patients are required to start a **Liquid Diet 2 weeks before their surgery date**. This diet will not only jump start weight loss, but, more importantly, it will help reduce the size of your liver making the procedure easier to perform and thus more successful.

During this time it is important to include a **protein shake** (see page 11 for suggestions) multiple times daily to help ensure good nutritional status prior to surgery. Aim for a goal of **~60-80 grams of protein per day; 20 grams per meal**. It would also be beneficial to add a general **multivitamin** and **calcium supplement** as a safety net in meeting basic nutrient needs. Swallow form of supplements (tablets or capsules) will be acceptable long-term, initially **chewable forms are recommended for optimal digestion and absorption for the first 2 months**.

The list below provides recommended liquids and supplements considered acceptable during the 2 weeks prior to your surgery date.

Artificial sweeteners are allowed. No Sodas or Diet Sodas!

Examples of Clear Liquids

- Water
- Diluted Juices (fruit or vegetable)
- Broth Based Soups
- G2 Gatorade or Low Calorie Equivalent
- Flavored water
- Unsweetened Tea
- Coffee
- Crystal Light
- Sugar Free Beverages
- Sugar Free Jello
- Sugar Free Popsicles

Examples of Full Liquids

- Hot Cereals (i.e. oatmeal, grits, cream of wheat)
- Creamed Soups
- Low Sugar Yogurt
- Sugar Free Pudding
- Skim Milk
- Sugar Free Sherbet

There are many protein shake varieties on the market that would be acceptable prior to surgery. **After surgery the list will narrow**. Feel free to enjoy your preferred kind until that time.

REFER TO PAGE 11 FOR LIST of QUALITY SUPPLEMENTS AFTER WEIGHT LOSS SURGERY

Pre- Surgery OTC Supplements

Multivitamin

- Centrum Chewables
- One-A-Day Maximum
- Flinstones Complete
- Chewable Mega Teen Multivitamin (GNC)
- NO GUMMY VITAMINS

Calcium with Vitamin D

- **Calcium "Citrate" form**
- Citracal Creamy Bites
- Celebrate Calcet Creamy Bites
- Bariatric Advantage Chewy Bites Citrate

NUTRITION PLAN

1. Pre-operative Full Liquid Diet: see page 4
2. Post-operative Diet
 - a. Dietician Role: You will meet with the Bariatric Dietician at your pre-op evaluation. A dietician will also consult with you in the hospital before discharge. You will also meet with the dietician in clinic to follow-up after surgery at regular intervals.
 - Provide written and verbal information on how to advance from liquids to solid foods
 - Discuss how to meet your nutritional needs as well as how to avoid possible intolerances
 - Evaluate your overall nutritional intake and make individual recommendations on how to improve if necessary
 - Help identify problems and make suggestions on how to correct them
 - Answer any questions regarding **your** nutritional plan
 - b. Your Role
 - Be an active participant in your weight loss program
 - Adhere to a well-balanced nutrition plan to help you reach and maintain your goal weight
 - Make changes in your eating habits that will lead to a **lifetime** of good health and weight control
 - Exercise as much as possible to increase your metabolism and help reach your desired weight
 - Follow up as required in clinic

Remember . . . **Surgery is not the magical answer to losing weight.** The more you know and where you are in your weight loss goals, the better your results will be.

Gastric Bypass/Sleeve Gastrectomy Patient Hospital Diet

- **Post op Day 0:** Nothing to drink or eat (NPO)
- **Post op Day 1:** 1 oz (30ml) water every hour
- **Post op Day 2:** 2 oz (60ml) Optisource every 2 hours; 1oz (30ml) water every 15 minutes as needed
- Discharge: Begin diet progression as recommend – “High Protein, Low Calorie Liquids”

Discharge Instructions for Gastric Bypass and Sleeve Gastrectomy Patients

It is of utmost importance that you follow the post-operative diet exactly as written, as it was developed to allow for healing of the internal suture lines from your surgery. **The first two weeks after surgery you should have LIQUIDS ONLY.** No solids of any kind are permitted. You can blend whole solid food and blend into a liquid. An example would be blend a vegetable and broth into a soup consistency or frozen fruit and yogurt into a smoothie. Rushing your diet progression could lead to rupture of your suture lines and the need for emergency surgery. Follow the diet progression provided to you in your pre-operative education manual and as advised by our medical team and dietician. If you don't tolerate a stage go back to the previous stage for a few days and then gradually try again, you may find you need a little more time in a particular stage before advancement

Discharge Diet

Start **after** you are discharged from the hospital.
The following describes the plan's progression from liquids to solid foods, ***after discharged from the hospital:***

Weeks 1 & 2 (high protein, low calorie liquids)

It is necessary for you to **continue on liquids for two weeks after discharged from the hospital** to avoid putting stress on your staple line.

- After surgery, protein is needed for healing and infection prevention.
- High protein liquid supplements will be prescribed by Dietary.
- In addition to these supplements, you will be allowed to have decaf tea, broth, Gatorade2, and cream soups (strained), cooked cereals (soupy), low fat yogurt (no sugar added and blended), fruit juices (small amounts), sugar free drinks, diet Jell-O, popsicles, and water.
- You need a good fluid intake during this time, so that you do not get dehydrated.



Weeks 3, 4, & 5 (Pureed Stage)

You will need to blenderize *most* of your food, or you may want to use baby food. You may also add scrambled eggs, canned tuna, flaked fish or well cooked beans mashed with a fork during this stage.

It is also important for you to develop an eating schedule for yourself that fits your lifestyle. The following are a number of guidelines:

- Relax and enjoy mealtimes. Stressful situations often cause food intolerance.
- Eat six times a day, three meals and three snacks.
- Limit the size of each meal to approximately four tablespoons of food. You will discover that you can drink more liquid, so be sure to select **low calorie beverages**.
- Take small bites, chew well, and put your fork or spoon down between bites. Chew each bite at least 20 times before swallowing the food.
- Take at least 20-30 minutes to eat or drink each small meal or snack. Eating slowly will help you to avoid problems with intolerance.
- Drink liquids between meals only; 30 minutes to one hour before or 30 minutes to one hour after a meal. You may take tiny sips with meals to help swallow food.
- Include foods from all food groups in your meal plan on a daily basis., eat protein rich foods first to ensure you get the protein your body needs prior to feeling full.

It is not necessary for you to eat completely different meals from everyone else in your household during this stage of the nutrition plan. The difference is your portion will be pureed by using the blender. You are encouraged to select low calorie, high protein, and low fat foods.

Week 6 (Soft Stage)

During this stage of the nutrition plan you will be consuming solid foods that are **wellcooked**. The following foods that should be included in your meal plan at this time:

- Baked fish, chicken, and turkey without the skin
- Dried beans, peas, and lentils
- Lean Ground beef and veal
- Creamy peanut butter
- Steamed or boiled vegetables
- Canned fruit, packed in its own juices
- Cooked or dry cereals, crackers
- Toasted breads, baked potato (no skin), Melba toast

Remember to continue eating slowly and chewing well. Avoid drinking liquids with your meals, and continue to follow the guidelines previously outlined.

Week 7 (Regular stage)

Continue to advance the consistency of the foods you eat by including raw fruits and vegetables into your meal plans.

- Continue to select low calorie, high protein foods, and low fat foods.
- Always ask yourself, "Is there a lower calorie, more nutritious choice?"

Foods to Avoid

- Nuts, seeds, skins (includes potato cucumber eggplant skins, fruit peelings, and the membrane between orange and grapefruit sections),
- The stringy portion of celery, asparagus, string beans
- Un-toasted bread
- High caloric, high fat foods, and high caloric beverages.
- Steak and pork may or may not be tolerated depending on the individual.

You may discover individual intolerances with certain foods; this is very common.

Vitamin and Mineral Supplementation

Due to the decreased volume and variety of food it will be difficult to consume adequate amounts of various nutrients. The following vitamin and mineral supplements are required to insure proper levels of nutrients lifelong due to malabsorption and eating less food after surgery.

Vitamin and mineral supplementation is a LIFELONG requirement after bariatric surgery (refer to AACE/TOS/ASMBS 2013 Clinical Practice Guidelines online).

1. **Daily Multivitamin plus minerals(2 times a day)**

Chewable and must contain minimally:

- Folate 400mg – Iron 18mg – Zinc 15mg-Thiamine

2. **Calcium Citrate (1200-1500mg) with Vitamin D (3000IU)**

- Must be in **Citrate** chewable form (1200mg -1500mg per day in divided doses of 500mg -600mg)
- Chewables can be ordered online from various vendors. Citracal Petit capsules are available in most drug stores
- If you are on Iron supplements or Iron in the multivitamin separate iron supplement from your calcium by at least 2 hours

3. **Iron (may need if your iron levels are low)**

- Women who are menstruating or who have a history of anemia; take with your multi-vitamin or a vitamin C for enhanced absorption
- You may also wish to take an over the counter stool softener when starting iron supplements as they may cause constipation and dark colored stool

4. **B-12**

- You will require B-12 by your 3-month post-op visit and at intervals thereafter. Remember to discuss B12 at you clinic appointment. Refer to pg 21 in FAQ section for more information on B12.

Medications/Vitamins

Your diabetic and blood pressure medications may need to be reduced, stopped, or otherwise adjusted after surgery. **Please follow up with your primary care doctor who normally prescribes these medications as soon as possible after surgery.** Also, if possible, keep logs of your blood sugar and blood pressure if you are on these medications to help them determine changes in your dosing.

You will require life-long vitamin and mineral supplementation; these will need to be in **chewable form** (no tablets or capsules) for the **first two months after surgery**. Please follow the recommendations of the dietician and your doctors to help maintain these levels appropriately. **You should at minimum be taking 2 chewable multi-vitamins daily with iron (AM and PM) and 1200mg-1500mg of chewable calcium citrate (with vitamin D) in divided doses.** Vitamins containing iron should be separated from calcium by a minimum of 2 hours to allow for proper absorption. This should start during your pre-op liquid diet and continue as soon as you are home from the hospital.

You may take Tylenol (acetaminophen) for headaches or mild pain after you are off prescribed pain medication from surgery. Milk of magnesia, benefiber, or miralax OTC may be used for constipation. Choose small pills (or sugar-free liquid forms) and take one at a time, allowing 10 minutes between pills. **Never** take a handful of pills at once after your weight loss surgery this can lead to a blockage.

Medications to avoid

Changes in the structure of your stomach and absorption in your intestines do not allow your body to utilize some medications. **Use extreme caution when taking diuretics, NSAIDS, and anticoagulants. Time and extended released medications should be avoided.** Below is a list of medications suggested to be avoided after surgery:



Advil	Meclomen
Alka Seltzer	Mobic
Anacin	Motrin
Ascription	Nalfon
Aspirin	Norgesic
Bufferin	Tolectin
Coricidin	Vanquish
Cortisone	Meclomen
Dolobid	Mobic
Empirin	Motrin
Excedrin	Nalfon
Feldene	Norgesic
Fiorinol	Extended or time released medications-Avoid
Ibuprofen	

Consult your bariatric team doctor and pharmacist if you are unsure a medication you are taking may not be appropriate or can be crushed after your weight loss surgery

Other Things to Avoid

- Use of straws
- Ice chewing
- Gum chewing

Signs and Symptoms of Vitamin and Mineral Deficiencies

Adequate intake of vitamins and minerals is essential for optimal health. After bariatric surgery, you are at significant risk for malnutrition because your intake and/or absorption of these nutrients are compromised. You can protect yourself from nutrient deficiencies by proactively committing to your **daily vitamin and mineral supplement routine for a lifetime**. Because everyone is “unique”, it is also important to follow-up with routine labs as recommended by the bariatric team to determine if additional supplementation is needed. Below is a list of common signs and symptoms you might experience if you do not adhere to these recommendations.

Vitamin/ Minerals	Deficiency Cause	Symptoms	Prevention
Iron	Inadequate dietary intake Decreased tolerance to iron rich foods (i.e. meats) Malabsorption	Fatigue Rapid heart rate Decreased work capacity Impaired learning ability	<u>Bypass or Sleeve:</u> Take 2 multivitamin daily with iron (minimum total of 36 mg of iron per day)
Vitamin B-12	Inadequate intake Decreased tolerance to B-12 rich foods Malabsorption Medication interaction	Fatigue Light-headedness Vertigo Palpitations Rapid heart rate Ringing in ear Numbness Irritability	<u>Bypass and Sleeve:</u> 1000 mcg monthly injections starting 3 months after surgery or 500mcg nasal weekly or Take 1000 mcg sublingual B-12 daily
Calcium	Inadequate intake Decreased tolerance to calcium rich foods Malabsorption	Leg cramping Muscle spasms Tingling in arms, hands and legs Bone loss	Take 1200-1500 mg calcium citrate daily Divide dose into 2-3 tablets daily (500mg-600mg per dose) Separate from multivitamin containing iron by 2-4 hours
Vitamin D	Inadequate intake Decreased sun exposure Decreased bioavailability with excess body fat Malabsorption	Bone loss Bone pain Muscle weakness Increased risks chronic diseases including cancer, heart disease, diabetes and kidney disease.	Calcium supplement should contain between 400-800 I.U. vitamin D Current guidelines recommend a minimum goal of 3000 I.U. daily

PROTEIN SUPPLEMENT COMPARISONS

Drinks	Kcal	Protein	Sugar	Fat	Where To Buy
Atkins Shakes, 11 oz	160	15	1	10	Walmart Target Grocery Stores
Bariatric Advantage Meal Replacements, 1 packet	160	27	0.5	2	www.bariatricadvantage.com 1.800.898.6888 UFHEALTH
Body Fortress Whey Protein Powder, 1 scoops	270	25	3	4	CVS Walgreens Walmart
Boost Glucose Control, 8 oz	190	16	4	7	Grocery Stores Walmart
Carnation Instant Breakfast (No Sugar Added), 11 oz	150	13	12	5	Grocery Stores
Celebrate ENS	140	25	4	0.5	www.celebratevitamins.com 1-877-424-1953
Premier Protein	160	30	1	3	Sams Club Premierprotein.co
Designer Whey Protein Powder, 1 scoop	100	18	0	2	GNC The Vitamin Shoppe
EAS AdvantEDGE Carb Control, 11 oz	110	17	0	3	CVS Walgreens Big Kmart
Jillian Michaels Natural Whey Protein Powder, 1 scoop	100	15	3	2	Walmart
Nature's Best Isopure Zero Carb, 20 oz	260	40	0	0	GNC The Vitamin Shoppe
Nature's Best Isopure Zero Carb Powder, 2 scoops	210	50	0	1	GNC The Vitamin Shoppe
Muscle Milk Light, 8 oz	100	15	0	2.5	GNC Target Walmart
Optisource, 8 oz	200	24	0	6	www.walgreens.com or 1.800.828.9194 1.888.240.2713 (Nestle)
Slim Fast Low Carb, 11 oz	180	20	1	9	CVS Grocery Stores
Syntrax Nectar, 1 scoop	100	23	0	0	www.si03.com 1.866.333.7403
Unjury Powder (unflavored), 1 scoop	80	20	0	0	www.unjury.com 1.800.517.5111
Beneprotein powder (unflavored), 1 scoop	25	6	0	0	www.walgreens.com or 1.800.828.9194 1.888.240.2713

Post-Surgery

You may shower, do not soak (no tubs or pools until incisions are healed) Allow water/soap to run over your incisions but do not scrub them.

You may feel bloated or have gas for the first week or so after surgery, you may also have shoulder pain, these symptoms are normal and are caused by the gas insufflation used during laparoscopic surgery. They should resolve on their own as any residual gas is absorbed by the body, keeping up your fluid intake and walking as much as tolerated may help this process.

Increase your activity as tolerated, walk as much as possible. Your goal for the end of the first week should equal walking a mile each day. Move as much as tolerated, you will be sore, this is expected. **If you feel dizzy, lightheaded or feel as though your heart is racing, REST. If these symptoms persist contact the office or your PCP for evaluation.** No lifting more than 10-15lbs or strenuous activity for 2 weeks after surgery.

If you had a drain in the hospital you may notice some bloody drainage from the site, this is common, keep the area clean and covered with gauze, and this should stop within a week. **If it does not stop, or the drainage become cloudy, foul smelling, or changes color please call the office to be evaluated.**

You may note a small amount of blood or pinkish color in your urine if you had a catheter placed for surgery; this is from irritation caused by the catheter and should clear up within a few days. **If it does not clear up, worsens, or is accompanied by burning with urination and/or pelvic pain call our office to be evaluated.**

The esophagus (the tube from your mouth to your stomach pouch) is muscular and may spasm after surgery. This is usually described as tightness and pain in the upper abdomen and lower chest, just below the breastbone. This may last an hour or up to a full day, **this pain does not spread to the left arm or jaw.** Pain medication will not help; if you try to relax it should go away on its own. **If the pain lasts longer than 24 hours or spreads to your left arm, jaw, or is accompanied by shortness of breath or changes in your heartbeat (palpitations, racing heartbeat) seek emergency care.**

Keep in mind you just had major surgery even though your incisions are small, get plenty of rest and plan to have some help at home post-op. You may not be able to sleep in your normal position due to discomfort and may develop some muscle soreness from sleeping in an unusual position. It is also common to feel tired and/or weak for the first few weeks due to decreased caloric intake and your body's recovery process. Please be patient with yourself, this will improve as you heal and begin your weight loss journey.

CALL THE OFFICE IF YOU HAVE
(727) 821-8101

- Marked or suddenly increased abdominal back, or shoulder pain greater than 4 hours
 - Temperature above 101 degrees
 - Heart rate above 120 beats per minute lasting greater the 4 hours
- Vomiting a large quantity of blood (some streaks of blood in vomit are normal)
- Diarrhea lasting more than 24 hours, especially if there is bright red blood in the stool
- Inability to drink 2 ounce of fluid every hour while awake for greater than 24 hours-this could lead to dehydration
 - Redness, heat, pain or swelling around an incision
 - Calf redness swelling or pain
 - Any other concerns about your health condition

Medications you will be prescribed when discharged home

Medication	Dosage	Form	How often	How long
Oxycodone 5mg/5ml	5ml	Liquid	Every 4 hours as needed for pain	2 weeks (300ml)
Zofran	4mg=5ml	Liquid or Sublingual	Every 4 hours as needed for nausea	2-4 weeks
Omeprazole (Prilosec) (do NOT take liquid Protonix tastes awful)	20mg	Open and sprinkle over liquids or yogurt	Once a day to prevent ulcers	12 months
Colace	100mg/10ml	Liquid - may consider gel capsule instead if you cannot tolerate liquid taste	2 times a day as needed for constipation	2-4 weeks while taking pain meds
Dulcolax	10mg	Rectal Suppository	Once a day as needed for constipation	While taking pain meds
Any new medications		Liquid crushable or chewable		2 months

MANAGEMENT OF POST-OPERATIVE COMPLICATIONS

Airway Obstruction

- All patients are encouraged to **keep the head of the bed** elevated after surgery
- Those diagnosed with Sleep Apnea and use a **CPAP machine** at home be sure to **bring your CPAP machine to the hospital on the day of surgery**
- CPAP will be applied immediately after surgery when you wake up from anesthesia
- Respiratory Therapy will also consult with you when you are transferred to the floor to make sure everything is working correctly

Bleeding

- Internal bleeding is a rare but serious complication after surgery
- Signs/Symptoms: heart rate over 120 beats per minute, fever, belly distention
- Gastric Bypass/Sleeve Gastrectomy: Your blood is tested for type (A, AB, O) as a standard admission process in the event an emergent blood transfusion was needed

Bypass Leak

- A leak can occur at the site where the intestines are connected to the new stomach pouch
- This a rare but serious complication of gastric bypass surgery
- Follow nutrition plan as instructed to lessen stress to suture site
- Sign/Symptoms: unexplained increased heart rate over 120 beats/min; left shoulder pain

Deep Vein Thrombosis (DVT)

- Blood clots can form in your legs as a result of surgery and decreased activity
- Medical prevention consists of compression therapy to your legs and medication (lovenox or heparin) during your hospital admission to prevent clots from forming
- **Walking as soon as possible after surgery** will improve circulation and help prevent blood from pooling in the legs
- Signs/Symptoms of DVT: calf is swollen and warm to touch

Dumping Syndrome (usually common with bypass surgery)

- Certain foods, particularly highly concentrated sweets (greater than 15-20 grams) or high fats, may cause light-headedness, cramping, diarrhea, heart pounding abdominal pain, nausea, and/or vomiting
- Usually occurs 30-60 minutes after eating and can last 4-24 hours
- This is a result of hormonal release in the intestines
- Certain foods may trigger this response and may vary for each individual
- Learn to avoid these foods and realize that these symptoms lessen with time
- Following meal planning guidelines can prevent the dumping syndrome

Emotional Changes

- Be prepared for emotional ups-and-downs after you go home from the hospital
- If these feelings continue or get worse, contact our office with any concerns

Esophageal Spasms (Bypass)

- Some patients will experience an occasional tightness and pain in the upper abdomen and lower chest, just below the breast bone
- The pain can last from 1 hour up to a full day. **The pain does not radiate to the left arm**
- Esophageal dilation may occur if your pouch is too full; it is not dangerous and pain medication will not help
- Try to relax and it will go away spontaneously

Pneumonia

- Surgery and decreased activity limit the expansion of the lungs creating an environment for pneumonia
- **Using the incentive spirometer** as instructed will help to expand the lungs
- **Walking** soon after surgery also helps to expand the lungs and decreases the chance of developing pneumonia
- Signs/Symptoms: Elevated temperature greater than 101.5 , increased work of breathing

Stricture or Obstruction

- Gastric bypass patients, the opening from the newly created small stomach pouch may narrow or close
- This will manifest 3-6 weeks after surgery with vomiting as you try to eat more solid foods
- The obstruction can usually be opened up by performing an endoscopic examination as an outpatient procedure

Ulcer

- There is a small chance of developing an ulcer after bypass surgery
You will be prescribed a Proton Pump Inhibitor (PPI) to take daily for a year at discharge

Vomiting

- Vomiting is often a result of overfilling the small stomach pouch, drinking liquids too soon after a meal, or not chewing food well
- Eat slowly, chew your food well, and stop eating at the first indication that you are full (satiety)
- Excessive nausea or vomiting should be reported to the team to be evaluated for risk of dehydration

Wound Concerns

- Patients will be provided with a **pre-surgical scrub** at the Pre-op Evaluation to use the night before surgery to decrease the chance of wound infection
- If wound separation occurs, it is usually not very deep and is not a serious problem
- It is common to have drainage of clear to reddish fluid from your wound in the first week or two after surgery
- You must remember that only a small amount of blood can make the fluid appear bright red. Therefore, a reddish appearance is no cause of alarm
- If you notice signs and symptoms of infection (pus like discharge, red streaks, fever, swelling, or pain at incision sites) notify medical personal
- You should contact our office with any concerns as soon as you notice any signs of infection or excessive drainage.

Long Term at Risk Considerations

- Malnutrition
- Nutritional deficiencies
- Gastric outlet strictures
- Internal hernias
- Small bowel obstructions
- Marginal or stomal ulcer secondary to the use of nonsteroidal anti-inflammatory drugs
- Pregnancy is contraindicated for 18–24 months postbariatric surgery because of the rapid weight reduction resulting nutritional deficiencies (Thomas & Taub, 2010)
- Periodontal Disease
- Gallstones and Kidney stones

Reflux

Common after sleeve surgery

May need to increase PPI (Protonix dose-consult doctor for dosage recommendations)

Slow down eating and take smaller portions

Sit upright for minimum of 30 minutes after eating-do not lay down right after eating

Avoid foods that are spicy or acidic (coffee,tea,tomatoes)

PAIN MANAGEMENT

- Pain tolerance is different for each individual
- Realistic expectations after surgery: air in stomach causes distention and discomfort
- **Walking** is best remedy to expel air and decrease pain
- Discharge pain medication will be prescribed

PATIENT CONTROLLED ANALGESIA FOR ADULTS

What is it? Patient controlled analgesia (ah-null-G-z-uh) or "PCA" is a way to get pain medicine without the need for repeated injections (shots). A PCA is a machine set up by nurses. A PCA pump lets you have some control over pain medicine delivery. When you need pain medicine, you can push a button and the pump will give pain medicine to you. It is set up to allow pain medicine to be given by the person the machine is attached to. Pain medicine may also be given slowly and continuously. If pain medicine is given slowly and continuously, the patient may also push the button to get more medicine. The pump is set up to not give you too much medicine, or give you medicine too often.

When is PCA used to control pain? PCA can be used to treat pain from many different conditions. It can help decrease acute (short-term) pain, like after surgery or an accident. Chronic (long-term) pain, like cancer pain may also be treated with PCA.

How does PCA work? The PCA is a small, lightweight, battery-operated pump attached to a syringe filled with pain medicine. The syringe is hooked up to an IV tube. Nurses will put a small catheter (a thin tube) under your skin, into a vein (blood vessel). An IV tube is connected to this, and you will get pain medicine through this tube. There are different ways to get the medicine:

- A "basal rate" is a small amount of pain medicine running into the IV tube all the time.
- Sometimes a button is hooked up to a cord connected to the PCA pump. When you feel pain, you push the button. A small dose of pain medicine goes into your vein through the IV. The pump is usually attached to the same pole as your IV so you can move it easily and safely with you.
- You may have a basal rate, and a PCA for when you need more pain medicine.

How is PCA different from an injection?

- With PCA, small amounts of pain medicine can be given continuously or as needed through your IV. The medicine gets into your blood stream faster than an injection. You may still have pain, but it should be an amount that is manageable for you.
- With an injection (hypo or shot into a muscle), you may have to tell your caregiver that your pain is getting worse. You may have to wait for the medicine. With an injection, you may get a larger amount of pain medicine at one time. Your pain may return before you can get another shot, since time (usually hours) must pass between injections.

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How safe is PCA?

- PCA is very safe. The machine has a tiny computer in it that is set by nurses depending on your weight, age, and dosage. The pump will only allow a specific amount of medicine to be given within a specific time. The machine has a "lockout" period that prevents you from getting a dose of medicine too soon. You may push the button many times, but the pump will only give you medicine in keeping within the order the doctors have set. Sleepiness and very slow breathing may be signs of too much pain medicine. Being uncomfortable and restless may be signs of not enough pain medicine. Your nurse will watch you closely for these and other signs, and the amount of medicine you get when you push the button may be changed.
- Some people worry that they may become addicted to pain medicine. Studies have shown that patients using PCA often use less medicine. PCA may only be used for a few days depending on the injury or illness you have. Before your PCA is removed, caregivers will talk to you about your pain. Your caregiver will decide with you what may be used to manage your pain at home.

Who should press the button? Current guidelines state that **only the patient** should press the PCA button for pain relief. If you think that someone else should press the button for you, talk to your nurse. Tell your doctor or nurse if you are still uncomfortable within 5-10 minutes after pushing the button. Nurses can usually tell by your heartbeat and breathing if you need more medicine. Nurses can also tell if you are getting too much pain medicine.

Will taking pain medicine slow my recovery? No. Pain medicine is needed and important after an injury, surgery, or during some illnesses. PCA may allow you to rest comfortably. Being comfortable helps you to breathe more deeply and may help you heal faster. A PCA may actually control your pain better than receiving shots and keep you more alert to participate in your recovery. A PCA, should help you start moving around sooner. Mobility helps prevent blood clots from forming and recover sooner.

Are there any side effects? You may have side effects from any pain medicine, such as nausea (upset stomach), itchy skin, or trouble urinating. Nurses will watch you closely and work with you to prevent and treat these problems.

Call your nurse if:

- You are very sleepy most of the time.
- You are vomiting (throwing up) often.
- Your pain is not at a manageable level.
- The place where your IV is put into your skin is painful, warm, red, swollen or bleeding.
- You see blood increasing in the tube going to the pump.
- You see that your pump has no more medicine in it.
- Your pump has an alarm that is going off.
- You need to change your clothing or get out of bed, and you need help.

CARE AGREEMENT

You have the right to help plan your care. To help with this plan, you must learn about your pain and how a PCA can be used to treat it. You can then discuss treatment options with your caregivers. Work with them to decide what care will be used to treat you. You always have the right to refuse treatment. See page 9 for medications to avoid after having weight loss surgery.



ONLY the PATIENT can push the PCA button

FAQ-Frequently Asked Questions

I have completed all my tests and labs, when will I know my surgery date?

30-60 days may pass before you will know your actual surgery date. During this time, procedure and lab results are being reviewed by your bariatric team. Approval from your insurance is actively being perused by the surgical coordinators. Documentation to cover bariatric surgery (if required by your insurance) is your responsibility to obtain. We will contact you for any concerns and when you have been approved. Please be patient and keep working towards your weight loss goals.

Why do I have to stop smoking?

Smoking leads to complications during and after surgery. We want you to be successful with your decision to have weight loss surgery and eliminate any unhealthy habits that would not lead to improving your health and lifestyle.

Will I lose my hair? Can I prevent hair loss?

Hair thinning can occur due to nutrient changes in your body. Meeting your protein goal, vitamins and mineral supplements each day can help. Hair loss is usually noted 3 months after surgery and after 7 months regrowth begins. Not everyone has hair loss and is temporary, recommendations for taking zinc and biotin may be suggested by your doctor.

What should I bring to the hospital?

- Sturdy shoes for walking-not flip-flops
- Your CPAP machine if you are prescribed one
- 1 outfit (loose fitting) to wear home. You will wear a hospital gown during your admission to accommodate a urine catheter or drain inserted during surgery
- This folder and any other paperwork with your weight loss surgery information
- Someone to drive you home

When can I go home after surgery?

Usually patients stay 3 days and 2 nights in the hospital. You will not be discharged until your medical team is comfortable that you can tolerate small sips of water and protein supplement (Optisource). Do NOT force this process, we want to discharge you home so you can be successful with your new knowledge and habits from your decision to have weight loss surgery.

Is it normal to feel full and food is “stuck”?

Yes immediately after surgery you will have a different feeling. During surgery you were intubated (breathing tube placed down your windpipe) and sometimes after surgery you will feel a sore or have a hoarse throat-this should resolve. If you have ANY breathing difficulties notify your medical team immediately or call 911 if you are at home.

Remember your surgery affects how food travels in your digestive system and your satiety (feeling of feeling full). You are going to feel different. Time, patience and knowledge will help you be successful and healthy.

Do I have to take B12? My primary doctor said my levels are fine.

Yes. It is believed most patients have enough B12 in your body for the first three months after surgery but after that time due to the weight loss surgery your body will no longer be able to absorb B12 through your digestive system to keep you healthy. Please have your primary doctor speak with our bariatric medical team if you have concerns.

Can I get B12 over the counter or do I need a prescription?

You have 3 choices of how to give your body B12
Sublingual-SL (under the tongue) 350-500mcg every day
No prescription required and available over the counter

Or

Intramuscular-IM (a shot) every month or less frequent depending on your doctors preference and your B12 lab levels
Prescription only

Or

Nasal 500mcg weekly
Prescription only

What do I eat after week 8?

You may begin “regular” foods **ONLY** if you can tolerate foods in the previous stages see pages 6&7

Remember to meet your protein goal each day

You are required to meet with our dietician 2 weeks after your surgery to ensure you are meeting your individual nutritional goals. Do NOT skip this appointment-please call if an emergency prevents you from making your appointment. Take care of yourself!

This is the time when you need to start making notes of how your new digestive system tolerates food and create new eating habits that will lead to successful goals you set from electing to have weight loss surgery. Remember make it a part of your new lifestyle to have 3 meals and 3 snacks with the foods recommended by our dietitian.

EAT SLOW CHEW CHEW CHEW EAT SLOW CHEW CHEW CHEW EAT SLOW CHEW CHEW CHEW



You will find some food may never be tolerated or not until later in your journey post weight loss surgery. Do not give up. You can do it! Eat slow and chew thoroughly! Please call and ask to speak to our dietitian or bariatric coordinator if you want more assistance with your new eating habits. Attending weight loss support groups will help your through your new lifestyle and eating habits.

How often do I need to see a doctor after surgery?

You will have a schedule of appointments for the first year with doctors (both your primary and our bariatric surgeon), and physician assistant. Your post surgery appointments should be at 2 weeks and 3, 6, 12 months and then yearly.

How often do I need to see the dietitian?

You are scheduled to see our dietician minimally 2 times before surgery and again after surgery at 2 weeks 3, 6, and 12 months intervals.

How often should I weigh myself?

Patients who are most successful after weight loss surgery make it a habit to weigh themselves regularly. This is another habit that commits you to being accountable and responsible for your success. How often is regularly? Once a week is reasonable. Use the same scale, same time of day upon waking and after using the bathroom wearing the same clothes (or none). Keep a log of your weight. An extra pound/kilogram each month can add up to gaining back weight that becomes too overwhelming to lose again. Stay on top of your success. Checking your weight more than once a week can be too excessive.



What should I do about the medications I was taking before surgery? Should I continue taking all of them?

First and foremost it is your responsibility to ensure your primary or prescribing doctor (s) are aware your medications may need to be adjusted after your surgery. Do NOT just stop taking medications after your surgery without consulting your doctor. Plan ahead contact your primary doctor and discuss the high possibility your medication prescriptions may need to be adjusted especially ones for diabetes and blood pressure.

Also medications should be in crushable, chewable or liquid form for 2 months after surgery. Time-release medications are NOT recommended after surgery-contact your prescribing doctor(s) prior to surgery. Do not wait to the last day or after surgery.

How many pills can I take at once?

If the medication cannot be converted to chewable or liquid you can take **1 pill every 10 minutes** if ordered by your physician. NEVER again take a handful of pills, this can lead to a blockage. We suggest the pill should be no bigger than the head of a push pin tack and smaller than a regular M&M candy.



When can I exercise?

Exercise should be similar to eating creating a new habit in your new lifestyle. Begin walking as soon as possible, this may even be 4-6 hours after surgery once the anesthesia has worn off. The first week you may be limited by fatigue and mild pain. Walk around the house or in a mall with air conditioning and areas to sit and rest. Your discharge instructions recommend no heavy lifting greater than 10-15lbs. When you return for your 2 week post surgery appointment, usually you will be cleared to return to work and can begin exercising (going to the gym, swimming, stationary bike etc...).

Recommended long term your exercise goal would be 30 minutes or 3 ten minute sessions each day. Get your body moving...A body in motion stays in motion.

I do not like to exercise. Will not exercising affect my weight loss after I have the surgery?

Yes! Not exercising affects the simple equation of calories in and calories out. Regular exercise is another habit you need to develop for yourself after committing to weight loss surgery. Find exercise you enjoy and can also do by yourself prior to having the surgery. Use free smart phone exercise applications to help you know how you are exercising or join a gym. It's up to you for you!

When can I go back to work?

Your discharge instructions recommend no heavy lifting greater than 10-15lbs for 3 weeks. When you return for your 2 week follow up appointment after surgery your ability to return to work can be addressed. Depending on your type of work you maybe cleared after 2 weeks to return to work.

Where do I buy vitamin and mineral supplements?

Where you buy them is your choice. We recommend seeking quality brands that are bariatric specific. Some individuals choose online, others go to a local drug store, health food store, vitamin specialty shop or supermarket. If you have questions about the multiple choices of brands ask a bariatric team member or call the company for knowledge of the product. Purchase your vitamins and supplements **prior** to your surgery so they will be available when you get home. You will need to take these for the rest of your life every day to avoid serious nutrient deficiencies.

The vitamins and mineral you need to take every day

Multivitamin with Iron
Calcium Citrate with Vitamin D
Vitamin B12 (if sublingual)

Remember the recommended form is calcium CITRATE- **not** calcium carbonate or phosphate

How will I stop losing weight?

The most amount of weight loss is usually the first 18-24 months. After that time you will notice a plateau in your weight. How well you commit and dedicate yourself to your lifetime habits after weight loss surgery will affect how quickly you stop losing weight and start adapting to your new body.

What else do I need to remember after weight loss surgery?

No smoking- if you had to quit for the surgery keep at it!

Follow up with a doctor yearly and provide us with annual labs (Fax727-825-1357).

We suggest minimally the labs below be checked by a health care provider annually:

CBC
CMP
Lipids
TSH
HA1C
Iron TIBC
Ferritin
Vitamin D (25 hydroxy)
B12

Make exercise a regular part of your life (see pg 23)

Enjoy your journey in your new body!

WEIGHT LOSS SURGERY PATIENT SUPPORT GROUP
Every Fourth Tuesday of the Month
6:30-7:30pm

Support group meetings are offered once a month and designed to help people with their weight loss surgery journey. Studies show improved outcomes for individuals attending support groups then those who choose not to attend.

Each meeting will offer an opening topic of relevance to attendees, including presentations by guest speakers, and then offer small group break-out sessions for discussions about successes and challenges.

Organized by Fran Russell, BSN RN Bariatric Nurse Coordinator with Baycare.

Fran Russell, BSN RN
Bariatric Program Coordinator
(727) 825-1490
Frances.Russell@baycare.org

**Support Groups meet every Fourth Tuesday of the month in the
Auditorium Ground Floor from 6:30pm-7:30pm**

WEB RESOURCES



1. Obesity Help

<http://www.obesityhelp.com>

- Examples of patient-specific forums: Florida – Medical Conditions – Black American – Age – Pregnancy after Bariatric Surgery
- Chat rooms
- Recipes
- Photos

2. Realize My Success

<https://www.realizemysuccess.com>

- Sites for: Tracking Progress – Nutrition – Exercise

3. Daily Strength

<http://www.dailystrength.org>

- General on-line support site for a variety of health conditions, i.e. depression, arthritis, etc.
- Specific tab for “Gastric Bypass Surgery”

4. Bariatric Support Center

<http://www.bsresourcecenter.com>

Developed by Gastric Bypass patient for product purchase

- Protein shakes/bars
- Cookbooks
- Magazines/CD’s
- Exercise products
- Tele-seminars

5. Weight Loss Success Lifestyles

<http://www.wslifestyles.com>

- Articles written by healthcare professionals specializing in weight loss and weight loss surgery
- Products

6. Bariatric Advantage

<https://www.bariatricadvantage.com>

- Live customer service representative
- Meal replacements; vitamins; chewable calcium citrate; “Fewest Tablets” claim to meet recommendations; earn points for future purchases
iCompli™ program; downloads to mobile phone; reminder to take vitamins; reorder

7. ASMBS Guidelines web site

<http://asmbs.org/resource-categories/guidelines-recommendations>

References

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- Cook, Colleen. (2012). The Success Habits of Weight loss Surgery Patients. Bariatric Support Centers International. Jordan, UT
- Thomas, C. M. & Taub, L.M. (2010). Monitoring for and preventing the long-term sequelae of bariatric surgery. Doi: 10.1111/j.1745-7599.2011.00655x