# PATIENT GUIDE TO METABOLIC & BARIATRIC SURGERY



# MADIGAN ARMY MEDICAL CENTER JBLM, Washington

The Defense Health Agency, Madigan Army Medical Center, nor any of its affiliates or employees recommend or endorse any of the Bariatric products discussed in this booklet. Bariatric products shown or discussed here are used as examples only and are not a complete or comprehensive list of all available Bariatric products available on the open market.

#### **TABLE OF CONTENTS**

Introduction	3
The Bariatric Pathway	4
Multidisciplinary Team Approach	5
Obstructive Sleep Apnea and the Sleep Study	6
Body Mass Index	8
Impacts of Obesity	9
Treating Obesity with Surgery	9
Normal Digestive Process	10
Types of Bariatric Procedures	12
Preparing For Bariatric Surgery	18
The Days and Weeks Leading Up to Surgery	19
Recovering in the Hospital	23
Getting Discharged and Returning Home	25
Returning to Work	27
Taking Care of Your Surgical Site(s)	28
Bowel Movements & Flatulence (Gas)	29
Post-Operative Appointments & Follow Up Care	30
Long Term Impacts of Bariatric Surgery	31
Getting Active & Exercising	35
What and How to Eat After Bariatric Surgery	38
Frequently Asked Nutrition Questions	44
Vitamin & Mineral Supplements	46
Kidney Stone Prevention	48
Post-Operative Bariatric Medication Recommendations	48
Panniculectomy / Abdominoplasty (Skin Removal Surgery)	49
References and Credits	50
Contract for Bariatric Surgery	51

#### INTRODUCTION

We are an Accredited Comprehensive Center for Metabolic and Bariatric Surgery! Our Bariatric team is proud to be able to provide the highest level of care to patients who are wanting an effective treatment for obesity, and some of the health conditions that can be caused by obesity.

For the sake of simplicity "Bariatric surgery" will be used from now on when discussing Metabolic and Bariatric Surgeries and/or Procedures.

This booklet was made to provide information on the different types of Bariatric surgeries offered here at Madigan, risks involved with these types of surgeries, and how to be successful before, during and after surgery. Patients will sometimes hear this process referred to or called "The Bariatric Pathway".

Having Bariatric surgery is a life changing decision, so our care teams will want to work closely with patients in this program to help reach the safest outcomes after surgery. Patients who have Bariatric surgery will need care and monitoring for the rest of their life after their surgery.

You, the patient, are the most important piece of this Bariatric Pathway process. The more information you have before surgery, the more you understand about the changes you will need to make before, during and after surgery, the more successful you will be with gaining better health and losing weight.

Please take the time to read and understand the information in this guide!

If you do not understand something or have any questions about the information you see here, please reach out to your care team. They will be glad to go over information with you and answer your questions. Remember, there are no dumb questions!

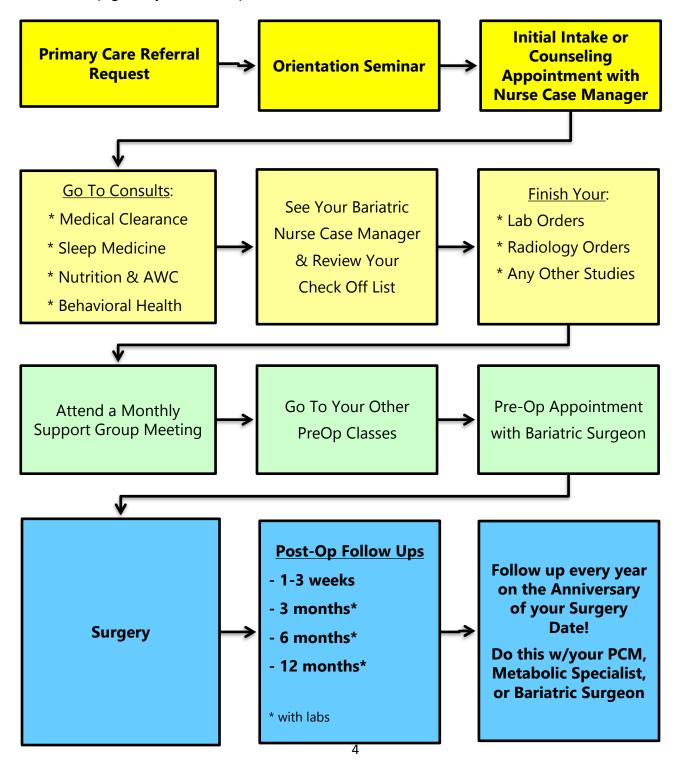
Tricare Appointment Line: (800) 404-4506

General Surgery Clinic Front Desk: (253) 968-3105, choose option 2.

General Surgery Triage Nurse: (253) 968-3105, choose option 3.

#### THE BARIATRIC PATHWAY

The requirements of the Bariatric Pathway are to help keep patients safe, and to support them before, during, and after their Bariatric surgery so that they have the best chance of reaching their goals for better health and weight loss. The diagram below shows the most common steps that are taken when following the Bariatric Pathway, and it applies to most patients. Your Bariatric Nurse Case Manager (NCM) will go over your individual needs to better help guide you on this path.



#### MULTIDISCIPLINARY TEAM APPROACH

Changing life habits, also called "lifestyle modification" is the key to successful Bariatric surgery, better health, and weight loss. Making new habits and sticking to them will be hard, and you are not expected you to have to do it alone. Remember, your Madigan team is here to support you before, during, and after your surgery. To best accomplish this, your team we will need to know how you are doing physically, mentally, & emotionally. It is for these reasons that you will be <u>REQUIRED</u> to have the following appointments:

<u>Psychological Evaluation</u> - The Behavioral Health Team will help you identify habits and behaviors that might be blocking your way to a healthier you. Mental, emotional, and/or psychological concerns can temporarily be worse after Bariatric surgery. If you are already seeing a Behavioral Health or Primary Care Provider to help you with your behavioral healthcare needs, you will be asked to release those records to a Bariatric Pathway team member as part of your assessment and evaluation process for Bariatric surgery. Many of our patients struggle with depression, anxiety, or other mood disorders and this will not disqualify you from surgery.

<u>Nutrition Evaluation</u> - The Nutrition Team will help you learn more about proper nutrition, and how to make healthier eating choices. Remember, you will not be able to eat the same amount of food, or even some of the same food you eat now after you have your Bariatric surgery. The goal is for you to be following your new way eating <u>BEFORE</u> surgery, so that you will already be used to it after surgery. Your new way of eating will not only help you be healthier, but it will and help you with long-term weight loss.

<u>Armed Forces Wellness Center (AWC) Evaluation</u> - You will meet with their staff to learn about the many resources that are available to you. They can help you build and sustain good health habits. They are in important part of your progress and success towards getting healthier and losing weight before and after your surgery...and they are FREE!

<u>Lab Orders</u> - You will be asked to complete lab tests so that your providers can look for and if needed, treat common medical problems (like vitamin and mineral deficiencies).

<u>Preventative Health Appointments</u> - You may also be asked to make some routine health appointments if they are needed. If you have already completed some of the below screening appointments, your nurse case manager or Bariatric surgeon will want a copy of them. If you do not know if you need any of these types of appointments, please talk to your primary care provider about it. They can order them for you if needed.

Pap/Well Woman Exam

Mammogram

• Screening for Colon Cancer

(Female patients ages 21-65)

(Female patients ages ≥ 40)

(all patients ages  $\geq 45$ )

Other Consults and Appointments - You may also need to see additional team members not routinely listed on the Bariatric Pathway. Your provider or surgeon will tell you if you need any additional consults or evaluations based on your specific health conditions to these clinics:

- Gastroenterology
- Pulmonology
- Cardiology
- Primary Care or Internal Medicine

<u>Sleep Study</u> - There is a high risk of Obstructive Sleep Apnea (OSA) in Bariatric patients. Diagnosing and treating OSA before Bariatric surgery can reduce the risk of very serious medical complications before <u>and</u> after surgery. To check for OSA you may need to have a sleep study. If you have already had a sleep study, please bring a copy of your results with you to your "Initial Surgery Intake" appointment.

#### **OBSTRUCTIVE SLEEP APNEA (OSA) AND THE SLEEP STUDY**

OSA is a condition where someone stops breathing for short amounts of time while asleep. This can happen when the airway or throat collapses partially while sleeping. Most people are not aware that this is happening, as they sleep right through it. These periods of time of not breathing can lead to dangerously low levels of oxygen while sleeping. This can cause fatigue, increase blood pressure, and decrease metabolism which can be related to or even cause weight gain.

Patients who have a BMI of 35 or greater (see next page) have a high risk of not being diagnosed with OSA. Eight out of ten patients evaluated for weight loss surgery did not know that they have OSA.

OSA is a disease that is no different than diabetes or hypothyroidism (low thyroid) and needs to be treated.

Like most Bariatric surgery programs, we require an evaluation for OSA before surgery.

What if I have OSA - If you have OSA, you will likely need to use a small CPAP machine which will help you keep your airway open while you sleep, every night. After you get used to it, you will start to sleep better, and feel more rested during the day. Some patients will still have OSA after weight loss surgery, so DO NOT STOP using your CPAP machine until you are retested (at about 9 to 12 months after Bariatric surgery).

What happens if I choose to not use my CPAP - Using a CPAP can be annoying, and at first it can be a little uncomfortable to use. Not using your CPAP and not treating your OSA with CPAP can potentially be <u>lethal</u>. Untreated OSA increases your risk of stroke, heart attack, or abnormal heart rhythm by more than 300%. Yes, that's right, <u>300%</u>. You may also feel more tired during the day, have less energy to take walks or exercise, and/or have less motivation to lose weight. You might not lose weight as quickly or be able to keep weight off as well as you could than if you consistently use your CPAP as instructed.



#### **BODY MASS INDEX (BMI)**

Basic Mass Index or BMI is a simple way to screen patients to see which classification of weight they belong to. BMI is calculated by dividing weight in kilograms by height in meters squared (kg/m²).

BMI classification is as follows:

ВМІ	CLASSIFICATION	
40 or Greater	Class 3 Obesity	
35 - 39.9	Class 2 Obesity	
30 - 34.9	Class 1 Obesity	
25-29.9	Overweight	
18.5 - 24.9	Normal Weight	
Less than 18.5	Underweight	

Recommendations specifically for Asian individuals include those with a BMI of 27.5 or more may be considered as candidates for Bariatric surgery.

All patients with BMI of 30 or more may be candidates for weight-loss surgery if they have not achieved substantial and/or durable weight loss or have not had obesity disease-related improvement using non-surgical methods.

Patients with BMI of 35 or more regardless of presence, absence, or severity of obesity disease-related conditions are candidates for Bariatric surgery. Some obesity disease-related diagnosis could be:

- Heart (cardiac) disease
- Breathing (respiratory) diseases
- OSA (sleep apnea)
- High cholesterol (hyperlipidemia)
- Diabetes
- Arthritis
- Hypertension (high blood pressure)
- GERD (heartburn, reflux, indigestion)
- Depression or Anxiety
- Fatty liver
- Gout
- PCOS (polycystic ovarian syndrome)

#### **IMPACTS OF OBESITY**

There are an estimated 280,000 deaths each year in the U. S. attributed to obesity. It is a reality that leads to great frustration, and can cause feelings of hopelessness, shame, and depression. For many people, no amount of dieting, exercise, or changes to their daily habits can help treat severe obesity. Furthermore, obesity can cause or worsen health conditions like the ones listed below (Allison et al).

<u>Breathing Conditions</u> - OSA, reactive airway disease, obesity hypoventilation syndrome (harder to breathe because the lungs don't fully expand), and/or asthma.

<u>Vascular Conditions</u> - Atherosclerosis or thickening of the arteries, high blood pressure, congestive heart failure, and/or stroke.

<u>Digestive Conditions</u> - Gallbladder disease, GERD, reflux/recurrent heartburn, recurrent ventral hernia, fatty liver, and/or high cholesterol.

<u>Hormone & Insulin Related Conditions</u> - Diabetes, hyperlipidemia, high cholesterol, and/or hirsutism (excessive hair in women).

<u>Urinary & Reproductive Conditions</u> - Frequent urinary tract infections (UTI's), urinary incontinence, menstrual irregularity, and/or infertility.

<u>Joint & Skeletal Conditions</u> - Degeneration of knees and hips joints, disc herniation in your back, and/or chronic low back pain.

Skin Disorders - Yeast infections between skin folds.

<u>Cancers</u> - Breast, uterine, prostate, renal, colon, and/or pancreatic cancer.

Behavioral Health Conditions - Depression, anxiety, eating disorders, and/or low self-esteem.

#### TREATING OBESITY WITH SURGERY

Obesity is a very difficult disease to treat. When other medically supervised treatments or methods have failed, Bariatric surgery can offer a great option to help support long-term weight control. It does this in two ways:

- 1) Restricts the amount of food that can be eaten at one time.
- 2) Changes the way your stomach and/or small intestine releases "hungry" or "full" hormones.

Determining whether or not you may be a candidate for Bariatric surgery is a process where you will need to have some very honest and serious talks with your doctor and your family. As stated earlier in this guide, the decision to have Bariatric surgery should not be made lightly. The short-term and long-term successes after surgery depends on your motivation and willingness to make changes to your habits and behaviors.

#### **BENEFITS OF BARIATRIC SURGERY**

The medical and emotional benefits of weight loss surgeries begin almost immediately after surgery. Other long-term benefits might also include:

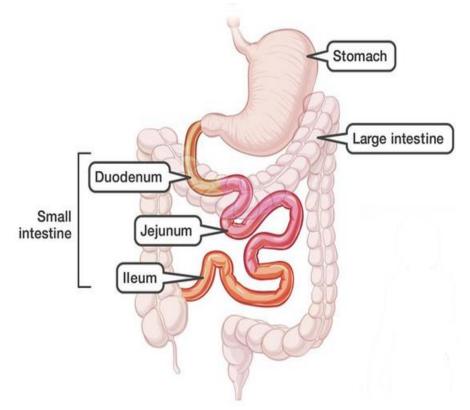
- Patients can lose a significant amount of weight and keep it off, if they follow their recommended nutrition plans after surgery.
- Most patients have rapid weight loss in the first 12 18 months after surgery.
- Sometimes patients regain some of the weight they lose, but very few gain back all of the weight they lost.
- Improvement or elimination of most obesity-related conditions:
  - Heart (cardiac) disease
  - Breathing (respiratory) diseases
  - OSA (sleep apnea)
  - High cholesterol (hyperlipidemia)
  - Diabetes
  - Arthritis
  - Hypertension (high blood pressure)
  - o GERD (heartburn, reflux, indigestion)
  - Depression or Anxiety
  - Fatty liver
  - Gout
  - PCOS (polycystic ovarian syndrome)
  - o Infertility

#### **OVERVIEW OF THE NORMAL DIGESTIVE PROCESS**

Chewing starts the digestive process by breaking down food and mixing it with enzymes in saliva. When someone swallows food, it moves down through the esophagus and into the stomach where it gets churned and mixed up with stomach acid. The enzymes, acid, and churning of your stomach continues to work to break down food so that it is small enough to leave from the bottom of the stomach and move into the first part of the small intestine (called the duodenum).



In the duodenum, bile and pancreatic enzymes further speed up the process to break down food so that your body can get to and absorb the calories and nutrients that are in food (like iron and calcium). As food now moves through your small intestine, even more calories and nutrients are absorbed in the second and third part of the small intestine (the jejunum and the ileum).



After that, the rest of the food, enzyme, and bile mix that your body could not absorb in the small intestine moves to the large intestine. This is where it is stored until it is eliminated during a visit to the bathroom (or sometimes also called having a bowel movement).

#### Types Of Bariatric Procedures

<u>Restrictive Procedures</u> - These types of procedures decrease the amount of food you will need to eat to feel full and stay full. The less food you eat, the fewer calories you take in, and this results in weight loss. Vitamin and mineral needs are the same before and after Bariatric surgery.

➤ Gastric Band and Gastric Sleeve surgeries are considered to be restrictive procedures only.

<u>Malabsorptive Procedures</u> - These types of procedures change the path that your food goes after you swallow. The stomach shape is made smaller, and food will bypass (go around) a part of the small intestine. This means less food and nutrients are absorbed by your body, and especially calcium and iron. This can increase your risks for vitamin and nutrient deficiencies. Patients will need to see or speak to a primary care provider, a metabolic/Bariatric specialist, or a metabolic/Bariatric surgeon and lab work done often so any deficiencies, can be found and then managed with vitamin or nutritional supplementation.

➤ Roux-en-Y Gastric Bypass, Biliopancreatic Diversion with Duodenal Switch, and/or Single Anastomosis Duodeno-Ileal Bypass with Sleeve Gastrectomy are considered to be both <u>restrictive and malabsorptive</u> types of procedures.

<u>Different Kinds of Bariatric Surgery</u> - The following pages will talk about the different types of Bariatric Surgeries offered here at Madigan, and a list of the pros and cons of each of them:

- Gastric Sleeve (aka: Vertical Sleeve Gastrectomy or Sleeve Gastrectomy)
- Roux-en-Y Gastric Bypass (RNYGB)
- Biliopancreatic Diversion with Duodenal Switch (DS)
- Single Anastomosis Duodeno-Ileal Bypass with Sleeve Gastrectomy (SADI or SADI-S)

#### **GASTRIC SLEEVE**



This is a restrictive type of surgery for weight loss. The Gastric Sleeve procedure (also known as a Vertical Sleeve Gastrectomy or Sleeve Gastrectomy) removes about 60-70% of the stomach. This is where the "feeling hungry" hormone ghrelin is made.

In this surgery, a surgical stapler is used along the curve of the stomach to make a new, smaller stomach that looks like a tube or "sleeve". The rest of the stomach is removed. The opening and exit of the stomach do not change, and will allow food to move from your stomach, down into the first part of the small intestines (the duodenum) like normal. After this surgery, patients can only tolerate eating smaller portions of food at one time. In 2018, sleeve gastrectomy made up 61.4% of all Bariatric procedures in the U.S.

#### **Pros:**

- No foreign objects left in the body like with a Gastric Band Procedure.
- Low risk of vitamin deficiencies (you will still need to take multivitamin).
- No surgical changes made to your intestines.
- Less long-term maintenance than the Gastric Band.
- Feeling less hungry, less often.

- Patients have less total weight lost 5 years after surgery compared to the gastric bypass.
- About a 30% risk of developing GERD (acid reflux, heartburn) after surgery. This Bariatric surgery type may be a poor choice if you already have these problems.

#### **ROUX-EN-Y GASTRIC BYPASS (AKA: RNYGB)**



This is both a restrictive AND malabsorptive type of surgery for weight loss. The Roux-en-Y Gastric Bypass, as the name implies, is where a bypass is surgically created so that food by passes most of stomach and the first part of the small intestines (duodenum).

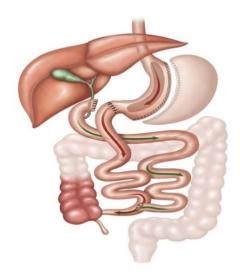
In this surgery, a surgical stapler is used to make a new and smaller stomach pouch (about the size of an egg). Next, the small intestine is cut about two feet away from the bottom of the old stomach and is brought up and reattached to the bottom of the new stomach. The part of the small intestine that is still connected to the bottom of the old stomach is reattached farther down on the small intestines. These changes make it so that the hormones from the small intestine sends signals to your brain much sooner after you eat to help you "feel full". This surgery will change how patients digest and absorb food for the rest of their life. In 2018, the Roux-en-Y gastric bypass made up 17% of all Bariatric procedures in the U.S.

#### Pros:

- Gold standard Bariatric surgery based on current scientific evidence.
- Best Bariatric surgery to treat GERD (acid reflux, and/or heartburn).
- Better weight loss and resolution of diabetes comparted to Sleeve Gastrectomy 5 years after surgery.

- Lifelong small risk (~1%) of developing an internal hernia (rare type of bowel obstruction after this type of surgery) which requires emergency surgical repair.
- Dumping syndrome (naturally occurring) is a <u>very negative</u> feedback response for patients that do not follow their nutrition plans after Bariatric surgery. Symptoms include nausea, weakness, sweating, feeling dizzy or faint, and diarrhea especially after eating foods high in carbohydrates and/or sugar.

#### BILIOPANCREATIC DIVERSION WITH DUODENAL SWITCH (AKA: DS)



This is both a restrictive AND malabsorptive type of surgery for weight loss. Biliopancreatic diversion with duodenal switch (also called the Duodenal Switch, or BPD-DS) is a procedure that combines the making of a gastric sleeve and also the making of a small intestine bypass.

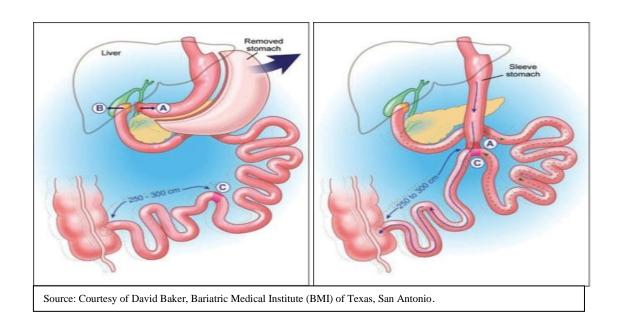
In this surgery, much more of the small intestine (about 60-70%) is bypassed compared to the Roux-en-Y Gastric Bypass surgery. Only a few feet of small intestine, where calories and nutrients are absorbed, is connected back to the new, smaller stomach tube or "sleeve". This surgery is generally not recommended unless your BMI is > 50. In 2018, the duodenal switch made up 0.8% of all Bariatric procedures in the U.S.

#### **Pros:**

- Most aggressive choice for helping to treat/resolve Diabetes concerns.
- Patients can eat larger meals than with Gastric Bypass Surgery.
- Lowest rate of regaining weight, in the long term.

- Patients will need close and lifelong monitoring for malnutrition, anemia, and bone disease, and will need to see a doctor/surgeon at least once a year.
- Patient may need to take more than just a daily vitamin supplement for the rest of their life.
- Right after surgery, patients can have very liquid and frequent bowel movements, abdominal bloating, and very bad smelling stool or gas. These side effects can improve over time when patients follow their recommended nutrition plans after surgery.

## SINGLE ANASTOMOSIS DUODENO-ILEAL BYPASS WITH SLEEVE GASTRECTOMY (AKA: SADI OR SADI-S)



This is both a malabsorptive AND restrictive type of surgery for weight loss. The Single Anastomosis Duodena-Ileal Bypass with Sleeve Gastrectomy, (also known as a Stomach Intestinal Pylorus Sparing Surgery or SIPs, and Single Loop Duodenal Switch Surgery) is similar to the Duodenal Switch surgery. However, in this surgery the small intestine is cut at only one point instead of two, and about 50% of the upper small intestine is bypassed.

#### **Pros**:

- Expected weight loss is about the same as patients who have a Duodenal Switch surgery, and more or greater than those patients who have Gastric Sleeve or Gastric Bypass surgery.
- Only one anastomosis is made compared to the Duodenal Switch and Gastric Bypass surgeries, so there is less future risk of internal hernias.

- Patients will need lifelong monitoring for malnutrition, anemia, and bone disease, and will need to see a doctor/surgeon at least once a year.
- Patient may need to take more than just a daily vitamin supplement for the rest of their life.
- Right after surgery, patients can have very liquid and frequent bowel movements, abdominal bloating, and very bad smelling stool or gas. These side effects can improve over time when patients follow their recommended nutrition plans after surgery.

#### GASTRIC BAND PROCEDURE (NOT OFFERED AT MADIGAN)



This is a restrictive type of surgery for weight loss. The Gastric Band Procedure does not involve cutting into, removing, or bypassing the stomach or intestines.

In this surgery, an adjustable band is placed around the upper part of the stomach and a tube that goes under the skin down to the lower belly ends in a port, also under the skin. Medical staff members can use to the port to fill or remove saline fluid from the band. A filled band squeezes the stomach and changes the shape of the stomach. This can help patients feel full after having only a small meal and reduce feeling hungry between meals. In 2018, the gastric band made up 1.1% of all Bariatric procedures in the U.S.

#### **Pros:**

- No stapling, cutting, removing or any other permanent changes to the stomach or small intestines.
- No malabsorption of calories or nutrients.

- Less weight lost comparted to Gastric Sleeve or Gastric Bypass surgery.
- Slipping or erosion of the Band into the stomach, and/or the port/tube could fail and/or leak. This could mean more surgeries in the future.
- Band may need adjusting to maintain weight loss and/or prevent side effects like nausea, vomiting, reflux, heartburn, etc.
- More follow up visits are needed after surgery, comparted to Gastric Sleeve or Gastric Bypass surgery.
  - We no longer offer gastric band surgery, but we are able to provide the full spectrum of follow up care for patients that have one, including surgical management of complications.

#### PREPARING FOR BARIATRIC SURGERY

<u>Tobacco Cessation</u> – This is a <u>REQUIREMENT</u> of the Bariatric pathway! Please stop tobacco use that involves chewing, dipping, swallowing, smoking, vaping, and/or using a vaping pen or e-cigarette device. Tobacco use slows the healing process, and increases your risk for high blood pressure, stroke, and/or getting stomach ulcers. You will need to stop using any and all tobacco products and be tobacco free for at least 90 days before any Bariatric surgery service. Otherwise, your surgery will be cancelled, and referrals to tobacco cessation will be offered.

<u>Alcohol Abstinence</u> – It is highly recommended that you stop consuming alcohol now. It is high in empty calories, can cause liver damage, and it irritates the lining of your stomach. After Bariatric surgery, even small amounts of alcohol can cause intoxication as patients are now more sensitivity to the effects of alcohol after Bariatric surgery. Some studies have even shown an increased risk of alcoholism after Bariatric surgery.

There is a higher risk for surgical complications with tobacco and/or alcohol use. Some of them are:

- Anesthesia-Related Complications
- Increased Risk of Infections
- Upper Respiratory Infections (URI) and/or Pneumonia
- Anastomotic/Staple Line Leak and/or Internal Bleeding
- Ulcers

Your Bariatric surgeons here at MAMC recommend and advise you to stop using tobacco products and consuming alcohol as of right now. If do not think you can do it alone, talk to your Primary Care Provider, or Bariatric Nurse Case Manager. They will be able to discuss with you the available programs and/or medications offered here at MAMC, and through your Tricare health insurance benefits.

<u>Diet & Exercise</u> - As part of completing the Bariatric Pathway, you will need to make appointments with the Nutrition Clinic and the Army Wellness Center (AWC) before surgery. Learning about and developing healthier nutrition habits and adding 30 minutes of exercise everyday will help you lose weight and keep it off. Making and following new routines or plans before Bariatric surgery, will make it easier to stick to them after you are discharged from surgery and back home. The Nutrition Clinic and the AWC are there to support you before, during, and after your Bariatric surgery. Both are part of your military dependent and/or your Tricare health insurance benefits.

#### SURGICAL SERVICES CENTER APPOINTMENT

Once the Surgery Clinic team has determined that you are a candidate for surgery, you will be asked to contact Surgical Services to make appointment(s) with their team. You will be evaluated and given teaching and education by their nursing and anesthesia staff. Appointments take about an hour, but how long it actually takes will depends on your unique medical history. It is an excellent time to ask questions about your surgery and go over what you should do to prepare for your Bariatric surgery. You will need to bring your Surgical Passport and any medical records you have been asked to get.

#### THE DAYS LEADING UP TO SURGERY

<u>Liver Shrinking Diet</u> – You will get a handout from the Surgery Clinic explaining the Liver Shrinking Diet at your pre-operation appointment with the surgeon. It is started 2 weeks before your surgery date and helps to shrink the size of the liver for surgery. Shrinking the size of the liver will reduce some risks during your surgery. It is very important that you follow these instructions for the liver shrinking diet.

<u>Skin Prep</u> – You will be given special wipes (Chlorhexidine Antimicrobial Wipes) to clean yourself with before surgery. Again, follow the instructions given and use these the day before surgery, and the day of surgery! It will help reduce the risk of getting an infection.

<u>Feeling III or Sick</u> – If you develop a cold, persistent cough, skin breakdown, fever, or have any changes to your health condition before your scheduled surgery; please notify the surgeon or their staff immediately. Even if it is the day of your surgery! We need to be sure you are in the best condition possible for anesthesia, and to reduce your risk of having complications during and after surgery. If necessary, we may have to change your surgery date to allow you time to get better.

Medication and Herbal Supplements – It is very important to list ALL prescribed, over the counter and herbal medications and/or supplements you are taking. You will need to give this information to the surgeon during your pre-operative appointment at the surgery clinic. Your surgeon may ask you to stop taking them before your Bariatric surgery, or you might be asked to provide a letter from a prescribing provider stating it is okay to be off a particular medication(s) for surgery. Then next page will go over medications that patients are typically asked to stop taking before Bariatric surgery.

#### **STOP - FOUR WEEKS BEFORE & AFTER SURGERY**

<u>Hormone Replacement Therapy</u> - Estrogen, Progesterone, and/or any type of contraception or birth control that have these hormones in them (this would include most types of birth control). These medications can increase the after-surgery risk of forming blood clots (called DVTs or Deep Vein Thrombosis), or Pulmonary Embolisms (PEs). Both DVTs and PEs can be life-threatening. You must use an alternative form of birth control (like condoms) to avoid becoming pregnant.

<u>Immunosuppressant Therapy</u> - Steroids and medications to treat autoimmune diseases. You must have clearance from your prescribing provider for these medications. These medications decrease your ability to fight infections.

#### **STOP - Two Weeks Before Surgery**

<u>Oral Steroids</u> - Prednisone, Methyl-Prednisone. These medications decrease your ability to fight infections.

<u>All Herbal Remedies and/or Supplements</u> - These may interact with anesthesia or other medications you will be given before, during and after surgery, and might cause you to bleed more or faster.

#### **STOP - ONE WEEK BEFORE SURGERY**

<u>Non-Steroidal Anti-Inflammatory Drugs</u> - Also called NSAID, these are types of drugs that must be stopped before surgery they can thin blood, making it easier for injuries or cuts to bleed longer and/or faster. Depending on which Bariatric surgery you have, you may have to stop taking NSAIDs for the rest of your life as they can increase the risk of making ulcers in your stomach and intestines. Examples of NSAIDs to stop using before surgery are:

BRAND NAME	GENERIC NAME
Bayer, Ecotrin, or Aspirin	acetylsalicylic acid, ASA
Motrin, Advil, or Midol	ibuprofen
Naprosyn	naproxen
Aleve	naproxen sodium
Mobic	meloxicam
Voltaren	diclofenac
Celebrex	celecoxib

<sup>\*</sup>Remember to READ LABELS on all medication bottles to see if they contain NSAIDs!

#### HOSPITAL STAY PACKING LIST

The checklist below are the items recommended for your hospital stay packing list. Please do not bring jewelry, large amounts of cash, and/or anything "extra" from home.

 This guide & your Bariatric (Surgical) Passport
 Military or dependent ID
 Phone and charger
 Comfortable, loose-fitting clothes wear for when you go home
 Toothbrush, toothpaste, lotion, hairbrush or comb, and deodorant
 Eyeglasses and case / Contacts and solution
 Hearing aids / Dentures and case
 Bathrobe that buttons up or zips up in the front
 Ear plugs and/or sleep mask (eye covers)
 Non-skid slippers or comfortable shoes
 Bring only your APaP, BiPap, or CPAP mask, if you use one
(The tubes/machine will be provided to you here)

#### THE DAY BEFORE SURGERY

TAKE A SHOWER (not a bath). Please follow the instructions on the Preoperative Instruction sheet and Skin Preparation Instruction sheets you were given. In the shower thoroughly clean your body. Use a Q-tip with alcohol or soap and water to clean your belly button. Wash your body to include your genitals as usual.

DO NOT SHAVE YOUR ABDOMEN OR BELLY as this increases the risk for surgical site infections. Use the Chlorhexidine Antimicrobial Wipes you were given on your body as instructed.

DO NOT apply or use any lotions, powder, or creams. Do not wear make-up or nail polish. (If you are wearing nail polish, please remove it from your fingers and toes.)

#### THE DAY OF SURGERY

DO NOT TAKE A SHOWER OR BATH. Use only the Chlorhexidine Antimicrobial Wipes you were given to clean your body as instructed. Brush your teeth and use mouthwash as directed.

#### AT THE HOSPITAL

Once you arrive at the hospital, please go to the <u>Day of Surgery Check-In Desk</u> to get checked in for surgery (this is on the 2nd floor). Once escorted to the back, you will be asked to change into a hospital gown. If you wear dentures, corrective lenses (contacts or glasses), and/or hearing aids you will be asked to remove them. You will be asked to sign an operation consent form which will state the type of Bariatric surgery you are having, and the risks your surgeon has already discussed with you at your previous appointment with them. Your signature shows that you agree to the type of surgery you are having and that the surgical risks have been explained to you by your surgeon.

After You Get Checked In - You will be taken to a bed in the holding/waiting area. Your vital signs will be taken. An intravenous (IV) line will be started to so that medications and fluids can be given to you in your bloodstream. You will be given a blood thinner injection into your abdomen/belly to decrease the risks of blood clots, and you will also get several oral medications that are needed for your surgery and a skin patch to help with nausea and pain after surgery. An anesthesia provider will see you before your surgery to go over what to expect and will be monitoring you during your entire surgery.

In the Operating Room - Once you are in the operating room, you will be asked to settle onto the operation table. A nurse will connect you to several monitors, and a sedative will be given to you through your IV. After you fall asleep, an endotracheal tube (ET tube) will be put into your mouth, and down into your windpipe to make sure your breathing is not restricted during surgery. Your anesthesia provider will give you a mixture of anesthetic gas and medications to keep you asleep and pain free.

How long your surgery takes will depends on the type of Bariatric surgery you are having, and if there is any scar tissue from previous surgeries. It will also depend on how well you followed the liver shrinking diet. Having a smaller liver and less fat around the internal organs can make for a faster and safer operation.

<u>Right After Surgery</u> - After surgery, you will be taken to the Post Anesthesia Care Unit (PACU). You will be closely monitored until your initial recovery is completed, and all your vital signs are stable. Once you have recovered from anesthesia in the PACU, you will be taken to your hospital room where you will stay until you are ready to discharge (go home).

#### **RECOVERING IN THE HOSPITAL**

<u>The Medical-Surgical Unit</u> – Sometimes called the "Med-Surg" unit, or the "inpatient ward". When you are ready to leave PACU, you will be moved to this area of the hospital to continue recovering from surgery. During your stay here, you will get around the clock care and be connected to several monitors (like the vital signs machine) which help your care team know how you are doing. Your care team will also help you with the following:

<u>Early Ambulation Exercises</u> – WALK, WALK, WALK, at least 4 times a day. This is the best way to help prevent getting pneumonia and developing blood clots. Getting out of bed to sit in a chair, or going for a short walk will be uncomfortable at first, but will get easier the more you do it.

<u>Breathing & Coughing Exercises</u> - You will be given a small plastic device called an incentive spirometer (I/S). Your care team will show you how to use a pillow to help support your abdomen while doing breathing and coughing exercises. You will need to do a full set of exercises every hour when you are awake.

SCDs - Sequential compression devices, or SCDs will be wrapped around each lower leg to help prevent against getting blood clots in your legs (or DVTs). They inflate and deflate, helping to promote circulation. They should be on all the time, and only taken off to walk somewhere.

<u>Your Diet</u> - Right after surgery, you will only be allowed to have a few ice chips and/or sips of water after surgery. Your care team will monitor your progress and "advance" your diet as needed (allowing more items to your list of things that are okay to eat and drink). A nutritionist or dietitian will also see you to again go over your at home nutrition plans

<u>Nausea</u> - Having nausea after surgery can be common and it can last up to 3-4 weeks after surgery. You will get anti-nausea medications around the clock, and as needed. You might also be discharged with oral anti-nausea medication. Make sure to let your care team know if you are having any nausea, vomiting, or dry heaving.

<u>Pain Management</u> - You will have some discomfort after surgery at your incision site(s), your abdomen or belly, or in your neck and shoulders. This might be from the surgery itself, or from the position you were laying in during surgery. Do not expect to be completely pain free after surgery.

Your incisions are closed with sutures deep inside your abdomen that will dissolve on their own. Some patients feel a pulling sensation at their incisions a few weeks after surgery

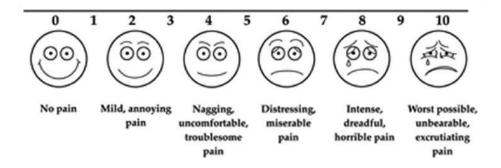
(especially when changing positions). This is usually a sharp, short pain, and should resolve after a few minutes.

Remember that everyone experiences pain differently. Some patients are more uncomfortable rather than painful, and some have pain. This can last up to 4 weeks after surgery. The goal is to have pain controlled at a level that you can tolerate so you can do your sitting, breathing/coughing, and walking exercises. Your care team will be giving you pain medication and can also help you find comfortable ways to rest, move, and/or walk.

IV Pain Medication - You will be getting non-narcotic pain medication (Tylenol®, Toradol®) in your IV, around the clock. There will be additional IV pain medications prescribed on an as needed basis if you need them. Make sure to tell your care team if you are having pain, especially if it keeps you from being able to do your exercises. Do not wait for pain to get really bad before asking for additional pain medication. You want to stay ahead of it.

<u>Oral Pain Medication</u> - You will need to be able to take medications orally (by mouth) for when you go back home. To be sure you can do this, your surgeon will change your medications from IV to oral while you are still at the hospital. This way the care team can monitor you during this change. You will be discharged with oral pain medications and are expected to wean yourself off of any narcotic pain medication as you start to feel better. The goal is for you to no longer need pain medications after being home for 2 weeks. Please know that you may still be a little uncomfortable at your surgery sites.

Again, it is normal to have some pain after Bariatric surgery. It is not normal to have severe pain that is not being controlled with your prescribed pain medication. Let your care team know what level of pain you are having. Use the Wong-Baker Face pain scale below to help you:



<sup>\*</sup> Get immediate medical attention if you are at home and having severe and/or uncontrolled pain!

#### **GETTING DISCHARGED**

Bariatric surgery patients will usually get to go home 1-2 days after their surgery. The actual discharge day depends on how well patients recover after surgery. When you can safely go home, you will be given discharge orders and instructions.

Your nurse or surgeon will go over your personal discharge instructions with you before you leave the hospital. If you do not understand something, say so. Your care team wants you to continue to have a safe and healthy recovery after surgery. They want you to know what to do, and what to expect after you leave the hospital.

Typical Bariatric surgery discharge instructions might include the following:

- A review of the diet plan you will need to follow at home with inpatient nutritionist.
- Changes to your medications (like which medications to start or stop taking).
- What activities you should do, and what activities you should not do or avoid.
- Side Effects, precautions, warning signs to look for, and when to get immediate medical attention.
- Using your APaP, BiPap, or CPAP machine, if you have been prescribed to use one. If
  you used one of these machines before your surgery, keep using it! Using your
  machine every night will help you with healing after surgery by making sure your
  body gets the oxygen it needs to repair your body, and it will also help you feel less
  tired during the day. You will need to have another evaluation 9-12 months after
  Bariatric surgery to see if you should still be using your machine or not.
- Your next appointments. You should already have appointments scheduled. If you
  do not, please make your appointments with:
  - > Bariatric Surgeon: 1-3 weeks after surgery.
  - Nutrition Clinic: 4-6 weeks after surgery.
  - Primary Care Manager (PCM): ASAP. You might need to have the medications you took before Bariatric surgery changed or stopped (like medications for high blood pressure or diabetes).

#### ВАСК АТ НОМЕ

Soon after surgery and even as far out as a few weeks after getting home from the hospital, it can be normal to feel "off" or under the weather. Common complaints are feeling nauseous, weak, lightheaded and/or tired. You can help manage or prevent these symptoms by trying to make sure you eat a minimum of 60 grams of protein and drinking at least 64 ounces of water every day. This is one of the most often heard challenges our patients have soon after surgery.

Other common complaints are having trouble sleeping, having gas pains, loose stools, and/or very bad smelling gas or stool, and/or have emotional ups and downs. If you are worried about any of these symptoms or if they do not get better after a few weeks, please contact your care team.

<u>Nausea and Vomiting</u> - If your nausea and/or vomiting is so severe that you cannot keep anything down for 8 hours or more, you need to report to the surgery clinic or to an emergency department. Persistent nausea and/or vomiting can lead to dehydration, electrolyte imbalance, and vitamin deficiencies.

Things that can CAUSE nausea and/or vomiting:

- Lying down too soon after eating (wait 30-60 minutes before lying down).
- Eating/drinking too fast or having too much at one time. Measure portions, take small bites or sips, chew food well, and eat/drink slowly to give yourself time to recognize when you are feeling full.
- Pain medication. Nausea is a common side effect when taking pain medication. If your pain medication is making you feel too nauseous, contact the Surgery Clinic to ask about changing your pain medication.
- Being dehydrated. You should be **sipping liquids and fluids** throughout the day to reach your goal of getting **64 ounces (oz.) every day**. You can try adding lemon to your water or try peppermint, fennel, or decaffeinated green tea.
- Trying to eat solid foods, too soon after surgery.
- Eating and drinking fluids at the same time, drinking fluid right after a meal, or drinking through a straw.
- Not following your after-surgery diet and exercise recommendations like:
  - Staying away from foods high in carbohydrates, sugar, or fat/grease.
  - Trying to exercise too long, too hard, too fast, too soon.

<u>Dehydration</u> - This will happen if you do not drink enough fluids. Dehydration can lead to bladder and kidney infections, make you feel nauseous, weak, dizzy, and/or have a headache. In some cases, you may need to be admitted to the hospital to be treated for dehydration by getting IV fluids. Signs & Symptoms of Dehydration can include:

- Fatigue and/or feeling very tired
- Dark colored urine
- Feeling lightheaded
- Headache
- Nausea
- Dry mouth, and/or having a whitish coating on tongue

<u>Avoiding Dehydration</u> - Sip on fluids throughout the day. (Remember taking tiny sips all day long from the tiny little cup when you were recovering from surgery in the hospital?) If your Bariatric surgeon or nutritionist says it is okay, sip on sugar-free sports drinks. Remember, **you need to drink at least 64 ounces of fluid a day** and will need to drink more than this if you have been sweating.

Avoid anything that has caffeine. It can act as a diuretic which will make you urinate more often, can irritate your stomach, and dehydrate you.

Activity After Surgery - You may feel very tired (or fatigued) after surgery. You will still need to try to stay as active as possible. You will want to avoid strenuous activity the first week after surgery, but you can still walk (30 minutes/day is the goal). Do not lift anything that weighs more than 20 pounds (lbs.) and avoid pushing or pulling motions for up to 4 weeks after your surgery. Avoid sitting or standing for long periods of time. Change positions frequently and take breaks to walk around. It is okay to climb stairs. You may travel short distances after surgery as long as you feel strong enough to make the trip.

\*It is very important for you to remember, <u>no</u> driving while using or taking narcotic medication(s).

#### **RETURNING TO WORK**

The first weeks after surgery you will need to pay attention to how your new body feels. This is a time to rest, do light exercise, attend support group meetings, and monitor and/or journal everything you eat and drink to make sure you are meeting your fluid and nutrition goals (64 oz. of fluid & 90 grams of protein every day).

When you can return to work depends on how well you heal and recover from your surgery. It will also depend on the nature of your job or the type of work you do. Returning to work too soon could hurt you or slow down your healing and recovery process after surgery. Most patients can return to work in two to four weeks.

Some patients do not want to have their job or employer know that they are having weight-loss surgery. Employers need to know you are having major abdominal surgery, and that most patients can expect to return to work in two to four weeks (after their surgery). Please be sure to let your employer know that your specific return date will depend on how well you heal and recover from surgery, and that it will be recommended that you should not do any heavy lifting (nothing more than 20 lbs.) for the full 4 weeks after your surgery date.

#### DISABILITY, LEAVE, AND/OR WORK RESTRICTION PAPERWORK

Please drop off any disability, leave, FMLA, or work restriction related forms to the Surgery Clinic during regular business hours. It can take anywhere from three to ten days to complete it. You will receive a phone call to let you know when it is ready for pick up.

#### TAKING CARE OF YOUR SURGICAL SITE(S)

Bruising and/or itching around wound and incisions is normal. This is from the manipulation of instruments during surgery. Surgical skin glue or steri-strips are covering your incisions. These will fall off on their own. Do not pick at them! Do not apply any antibiotic ointments or creams over them. Do not soak your incisions in water until 3-4 weeks after surgery (this means no bathtubs, hot tubs Jacuzzis or pools). Do not use alcohol or peroxide over your incisions. You may shower, but no scrubbing or hard rubbing you're your incisions. Soap and water over your incisions is fine. Pat your incisions dry and try to keep them dry. Monitor your wounds and incisions for signs or symptoms of infection.

<u>Jackson-Pratt (JP) Drain</u> - If you had a drain that was removed before you left the hospital, you will have a dressing over where the drain used to be. Keep a dry clean dressing over this site for 48 hours. Apply clean gauze and tape if the dressing gets wet or does not look clean and dry. After 48 hours, remove the dressing and keep the wound open to air. Again, monitor this site for signs or symptoms of infection.

<u>Normal Wound or Incisions</u> - A small amount of clear to yellowish drainage from surgical wounds or incisions can be normal. If this occurs, it is fine to cover them with a light dressing to prevent getting your clothes soiled. (If it is yellow to green or you are having any other sign or symptoms with it, please seek immediate medical attention.).

Some moderate swelling and bruising can be expected, however severe swelling and bruising may indicate bleeding or a possible infection.

Mild to moderate discomfort that can mostly be relieved or managed with pain medication is normal. So is numbness at your sites as small sensory nerves are sometimes cut during surgery when incisions are made. The sensation in those areas will return in about 2 to 3 months as the area heals.

If you are using heating pads on your skin, be careful to not burn yourself as this numbness may not allow you to feel the heat. Some patients also feel shooting electrical sensations as the nerve endings heal.

#### When to Seek Immediate Medical Attention:

- Severe pain that is not controlled by medications.
- Severe nausea or vomiting that is not controlled by medications.
- Chest pain or shortness of breath.
- Pain, redness, and/or swelling in your legs.
- Peeing less than 4 times in 24 hours.
- Wound or incision site feels warmer than the area around it.
- Redness or swelling of wound or incision site.
- Yellowish to green discharge from the wound or incision site.
- Bad smell coming from the wound or incision site.
- Increased pain.
- Fever of 101.5 degrees Fahrenheit or higher.
- Itching <u>AND</u> redness might be a sign of an allergic reaction.

#### **BOWEL MOVEMENTS**

Remember, your body processes food differently now after Bariatric surgery. You will also be eating less food and might be taking narcotic pain medications which can also slow down your digestion. All together this means that you might have fewer bowel movements and/or sometimes have constipation.

<u>Constipation</u> - This is defined as no bowel movements (BMS) for 3 to 4 days in a row, or passing hard/dry stools, which cause you to strain or "bear down" while going to the bathroom. Make sure to take your medications as directed to avoid constipation. Meeting your daily goal of drinking enough water will also help avoid constipation.

If you get constipation, try the following:

- Increase your fluid intake to 80 ounces a day.
- Use "MiraLax". Take 1 packet twice a day, as the package tells you.
- Use "Benefiber" powder. It is a fiber supplement that dissolves in fluid, and you take it as directed.
- If you are still having constipation after trying the above, please contact the clinic.

<u>Diarrhea or Loose Stools</u> - Please contact your surgeon if you have persistent diarrhea, as this can cause dehydration. If you are having multiple loose stools a day, do not take the laxative or stool softener prescribed to you.

Patients often report having constipation and/or loose stools after their surgery. To help you go to the bathroom, your surgeon will prescribe or send you home with a laxative and/or stool softener when you are discharged from the hospital. You can expect to have one to three soft, or loose BMs a day along with gas or flatulence (both might smell very bad, and again these are common side effect after surgery).

#### FLATULENCE (AKA GAS)

After Bariatric surgery your flatus (or gas) may smell worse and leave your body more forcefully. Foods high in carbohydrates will cause more gas to be made. Some foods that can make you gassier are: Beans, some fruits, some veggies, whole grains, wheat, bran, soft drinks, dairy products, foods that have sorbitol in them, and some "diet" products.

Things you can do to prevent flatulence:

- Chew food thoroughly and eat slowly.
- Do not drink through a straw. Swallowed air can increase gas in the GI tract.
- Avoid lactose (sugar free yogurt is ok).
- Eliminate carbonated beverages
- Watch your carbohydrate intake

#### POST-OPERATIVE APPOINTMENTS & FOLLOW-UP CARE

The Bariatric Clinic at Madigan Army Medical Center strives to ensure all of our patients experience a healthy weight loss journey. Your success is dependent on your dedication to follow-up care which includes office appointments and support group attendance. You will need to make and go to the following appointments after your Bariatric Surgery in:

•	1-3 weeks	Bariatric Specialist	
•	4-8 weeks	Nutritionist	
•	3 months	Bariatric Specialist and Nutritionist	* with labs before appointment
•	6 months	Bariatric Specialist and Nutritionist	* with labs before appointment
•	12 months	Bariatric Specialist and Nutritionist	* with labs before appointment

Then every year on the anniversary of your surgery date with a Bariatric Specialist or our Primary Care Manger, and a Nutritionist. You will need to have annual labs ordered so you can complete

#### LONG TERM IMPACTS AFTER BARIATRIC SURGERY

<u>Anemia</u> - You might not be getting enough folic acid, iron, and/or Vitamin B12 from the amount of food you eat now. This can cause anemia and the symptoms include: Paleness, fatigue, weakness, feeling too hot or cold, dizziness, and/or shortness of breath.

<u>Iron deficiency</u> - This can also be caused by low vitamin A. Vitamin A helps to move iron from where it is stored in your body. Not having enough Vitamin A means your body can't get iron from where it was stored, to where it needs to go.

<u>Skin Changes</u> - After Bariatric surgery, the texture or appearance of your skin may change. Some patients get dry skin or acne. To help improve the quality of your skin, again, you will need to take your recommended amounts of vitamins, supplements, protein, and water.

<u>Temporary Hair Loss</u> - Another side effect after your Bariatric surgery is temporary hair loss or hair thinning. This happens around 3 to 9 months after surgery during the rapid weight loss phase. This is when your body is getting less calories, and a borderline amount of protein. It will resolve once nutrition needs and weight loss stabilize. Make sure to consume the daily protein requirement. You can also talk to your provider about taking a Biotin or Hair, Nail, and Skin supplement.

<u>Losing Muscle Mass</u> - To help prevent losing muscle mass, you have to eat protein, exercise, and take your vitamins and supplements. The human body likes to burn muscle mass before it burns fat. If your muscles are not being used regularly for exercise, your body will burn muscle mass to meet your body's energy needs.

<u>Bone Loss (AKA: Osteoporosis)</u> - This can happen after Bariatric surgery when calcium and minerals stores are depleted from your bones. To help prevent bone loss, it is important to do weight bearing exercises, and get enough calcium, phosphorus, and other nutrients in your diet (like Vit D).

 Help get the nutrition you need and prevent some of these long-term impacts to your body by taking your vitamins and supplements and getting enough fluid and protein every day. If you have any questions or concerns, please contact your Bariatric Specialist or the Nutrition Clinic.

<u>Scars</u> - At first your surgical scars will look red, dark pink, or purple. It can take up to a year for the color to fade. It is important to protect these scars from the sun during this first year after surgery. You can do this by putting sunscreen on them with an SPF of at least 15 when out in the sun, even if the scars are covered up.

<u>Substance Abuse Warning</u> - There is the potential to develop alcohol or drug dependence after Bariatric surgery. It is sometimes called "addiction transfer". Because patients can no longer tolerate the same amounts or types of foods they were able to have before surgery, alcohol or drugs are used to help cope with emotions, stressors, and/or boredom after surgery. We strongly recommend you avoid all alcohol after Bariatric surgery. If you still choose to have alcohol after your surgery, it is necessary to use extreme caution because your body now processes it differently.

<u>Sexuality/Pregnancy</u> - All patients may resume sexual activity a week after surgery as long as they feel emotionally and physically stable. Keep in mind some positions might be more comfortable than others.

- Female patients Many women who are obese have trouble becoming pregnant because of hormone changes triggered by excess fat. However, when you lose weight, your hormones begin returning to normal, which can then boost your fertility. It is very important you do not become pregnant within 18 months of Bariatric surgery as this could be unsafe for you and your baby. We strongly recommend 2 forms of birth control during this time after surgery. The best options are condoms and an IUD (intra-uterine device) or progestin-only options (pills or implantable devices). If you would like more information, please discuss with your gynecologist, primary care provider, or Bariatric surgeon
  - If you want to get pregnant now, please wait to have Bariatric surgery until after you give birth. Getting pregnant too soon after surgery will reduce the amount of weight you will be able to lose and cause nutritional deficiencies that can have negative affects you and your baby.
  - If you do not want to have any future pregnancies, or, if it is right for you, you can also ask your surgeon about having a tubal ligation (or sometimes called "getting your tubes tied or removed") during your Bariatric surgery.

<u>Counseling</u> - Bariatric surgery does not only affect you physically, but it can also affect you mentally and/or emotionally. Counseling might be really helpful during the phase where you adjust to your new lifestyle, the changes you'll see in the mirror, and to your new metabolism and eating habits.

Before surgery, eating might have given you a lot of pleasure. After surgery, how you eat can be limiting, and eating may not give you the same pleasure. This can make you feel like you are missing out or being punished by not being able to eat what you want, when you want. You may also experience body image issues after surgery. Your body will look different as you lose weight, and you will have some visible scars after surgery.

Please also be aware that personal and relationship issues will not go away after Bariatric surgery, and that they can sometimes get worse after surgery. Change, even for the best of reasons can cause new problems to emerge or old ones to intensify. Do not take these changes in how you think or feel lightly. Seek counseling or talk to your healthcare team about your concerns, especially if you think you might be experiencing depression (which could be mild or severe).

<u>Depression</u> - It is important for patients and their loved ones to be able to recognize the signs and symptoms of depression in order to seek behavioral health and/or psychological treatment.

Signs and symptoms of depression include but are not limited to:

- Difficulty remembering or making decision
- Decreased energy and/or fatigue
- Sleeping too little or too much
- Feeling worthless, guilt, hopelessness and/or helpless
- Irritability or excessive crying
- Feeling restless or anxious
- Loss of interest/pleasure in activities to include sex
- Persistent sadness

If you are experiencing signs and/or symptoms of depression, please contact your primary care provider, psychiatrist, counselor or the psychologist who helped you during your preoperative evaluation.

### SEEK IMMEDIATE MEDICAL ATTENTION IF YOU BEGIN TO HAVE THOUGHTS OF DEATH, SUICIDE, HARMING YOURSELF OR OTHERS!

Medication Effectiveness Concerns - If you were diagnosed with a depression and/or other behavioral health concerns and were prescribed antidepressants before Bariatric surgery it is important that you continue taking your prescribed medications after your surgery.

Remember, you absorb nutrients and medications differently after surgery, and your previously prescribed behavioral health medications may not work as well for you after surgery. Please talk to the provider that prescribes your medication(s) to see about getting them in a liquid, chewable, or crushable form.

It is highly recommended that you check in with your prescribing provider within 1-2 months after your Bariatric surgery to make sure ALL your medications are working for you (like for hypertension, diabetes, and/or others).

<u>Body Image And Emotional Eating</u> - Your body is going to change in weight and size. It is not unusual for you to see your body as one way, and for others to see it another way. You may be surprised when you look at your reflection in a store window or mirror. It will take time for your mind to catch up with the changes your body is going through and how it looks. The following are tips to help you avoid emotional eating:

- Do not use food to cope with emotions or stress. Comfort yourself with healthy activities (like yoga, and/or deep breathing exercises).
- Do not suppress your emotions as they will eventually surface again. If you feel like crying, let yourself cry.
- Do not sabotage yourself by ignoring the emotions you can have with the rapid weight loss and bodily changes. Talk to your care team!
- Keep a journal of your feelings and experiences. Share them with your counselor, doctor, and/or surgeon.
- Adjust your expectations and set realistic goals.
- Connect with others on your journey (attend support group meetings).
- Stay occupied with work, hobbies, and exercise.

<u>Family And Friends</u> - Spouses or partners. Family and friends. These loved ones have become accustomed to you and your obesity. They are used to seeing you and interacting with you in routine and expected ways. Keep in mind that even though you hope that they will be supportive and helpful during your ups and downs, this may not always be true.

Remember, your loved ones will also be learning what your "new normal" is like after Bariatric surgery and will have to figure out what their "new normal" is when they interact with you.

During these times, it is especially important to try to keep the lines of communication open and recognize the signs of distress your spouse or partner is showing. It will take time, effort, and patience for your loved ones to relate to you in new ways.

They might be resistant to the changes that are happening in your life after Bariatric surgery. You and your spouse could start having more disagreements than normal. Your friends may refuse to support your dietary and/or exercise wants and needs or downplay the importance of you following recommendations.

Please know that their reactions to your new lifestyle might not be what you expect, and that this can be stressful for you AND them. If your relationship is undergoing serious ongoing problems, professional counseling may be helpful.

#### **GETTING ACTIVE AND EXERCISING**

As you lose weight you will gain more energy, and your body will have an easier time moving around.

As part of your journey on the Bariatric Pathway, we asked you to visit the healthcare educators at the Army Wellness Center (AWC) before AND after your surgery. In this way, you can continue to get the help and support you need to be able to reach your wellness and weight loss goals.

Remember, at the AWC, they have personal trainers and/or other staff who have backgrounds in exercise education. They <u>want</u> to help you and can work with you to create a plan that will help you prevent injuries, get healthier, get stronger, and lose weight.



#### IN THE BEGINNING

Your level of activity is somewhat restricted for the first three weeks after surgery. You should walk and can perform light household chores once you are back home. Start with frequent, short walks of about five minutes, and add five minutes every few days as you feel you can. You do not want to get to the point of being exhausted after your walks, but a little tired is ok. Slowly increase the time you walk so that at about four weeks after surgery you are walking 30 or more minutes a day, five to six days a week. If you have problems with weight bearing activities, water exercises are recommended. You can start water activities (like swimming or water aerobics) about three weeks after surgery.

<u>Exercising</u>: Bariatric surgery is only one of the tools you have for weight loss. Another tool is exercise. To get the maximum benefits from surgery, you will need to add exercise into your daily routine. It not only helps you to lose weight, but it stimulates the production of "feel good" hormones called endorphins. If you want to feel good, build muscle mass, AND maintain your weight loss, you <u>must</u> exercise.

Exercise helps to keep bones dense and strong, increases strength and balance, boosts energy, and improves quality of life. Research shows that those who exercise three or more times a week for at least 30 minutes lost an additional 12% of their excess weight in six months. Patients who work hard on exercise soon after surgery find it very rewarding. As weight is lost, the ability to exercise gets dramatically easier and better, as each week goes by. Do NOT cheat yourself or your body of this important aspect of weight loss. Making a long-term commitment to exercising is hard and it is difficult to stay motivated. Remember to use the AWC to get answers to your questions, and for support. If it has been some time since you have exercised regularly, then start slowly. Start with five minutes a day and add five more minutes a week until you can stay active for 45 minutes per day, five to six days a week. Just being "active" during the day is NOT enough exercise to lose weight and keep it off.

<u>Three Forms of Exercise</u> - A well balanced exercise program should include some type of exercise from each of these 3 categories. You will want to find a way to do all three.

Cardiovascular Activity - "Aerobics" or "Cardio" helps teach your body to oxygen more efficiently, so that you get maximum benefits to your heart, lungs, and circulatory system. During "cardio", you will use large muscle groups to do an activity for a long period of time (30-60 minutes). You'll know when your heartrate is in the right "zone" when you can still talk, but you start to breathe harder while exercising. Walking, jogging, swimming, and cycling are all aerobic activities. Your goal is to lose weight, so you will need to do some type of cardiovascular exercise for five or more days per week for 30 to 45 minutes a day.



 Strength Training - Strength-building exercises are known as anaerobic exercise. Anaerobic exercises do not have cardiovascular benefits, but instead help to make your muscles and bones stronger and can help to increase your metabolism. Muscles use calories for energy even when your body is at rest. By increasing muscle mass, you will burn calories all of the time.



If you strength train regularly, you will find that your body looks leaner, and you will continue to lose fat.

Strength-building exercises require short, intense effort. People who lift weights, lift their own body weight (like doing push-ups or pull-ups), or use any type of equipment that requires weights or resistance (like exercise bands) are doing strength building exercises.

Strength building exercises should be performed 2-3 times a week for best results. Always warm up for 5-10 minutes before beginning any type of strength training exercise.

• Stretching and Flexibility - Exercises that tone the muscles through stretching can help prevent muscle and joint problems later in life.

### STICKING WITH AN EXERCISE PROGRAM

- 1. Treat Exercise Like a Prescription Some people love to exercise. Others, not so much. Whether you love it or only tolerate it, your body needs it every day. You need to exercise in order to stay healthy and lose weight. Think about it this way. If you were sick or had a condition that that required you to take a medication every day, you would take that medication every day. Right? Treat exercise like a prescription and take your "exercise medicine".
- 2. Research Activities to Do You have a better chance of sticking with an exercise if you LIKE IT. Find out what type of exercise classes are available at your local gyms, and don't be afraid to try something new. You might find something you really enjoy.
- 3. Change Your Routine Even for someone who loves exercising, workouts can become bor-ri-n-g. If find yourself feeling like you are just going through the motions, try changing things up. Take a different walking route or go to a different park. Ask gym staff to show you how to use a piece of equipment you haven't tried before. As it gets easier to move your body, and as you get stronger, try new things to challenge yourself.
- 4. Find A Workout Buddy Most of us like meeting up with our friends and family. Make that meet up another way get some exercise. Try a class together like rock climbing or meet up at the park to walk and catch up. Friend, neighbor, or personal trainer, knowing that someone is meeting up with you makes it harder to cancel or not go.
- 5. Try Group Activities or Sports Participating in a group might make it easier to stick to an activity. Hiking, cycling, volleyball, kickboxing...visit the JBLM MWR (morale, welfare, and recreation) website to learn more about these activities and more. Don't forget about the JBLM NW Adventure Center, too for local adventure trips, and activities.

- 6. Make A Schedule If you don't put exercise into your daily schedule, you will most likely do everything except exercise. Add it to your schedule just like you would a meeting, or an appointment. Try scheduling different activities during the week like walking 30 minutes on Monday or attending a yoga class on Wednesday.
- 7. Know Your Weaknesses Figure out what makes you quit your exercise programs. If going on vacation throws you off, try adding exercise into your vacation plans. Can't do mornings? Schedule exercise right after work, before you get home. Outsmart yourself!
- 8. Keep A Workout Log Write down your exercises and activities. Sometimes with weight loss, the numbers on the scale don't go down, but the inches melt away. It is the same with exercise. It can be hard to see how far you've gone, when you are already there. Write down the minutes you walked, the distance you biked, and the weight and number of repetitions you lifted. Write down how you felt after the activity. Did you feel proud? Was it easier than last week?
- 9. Last One...Just Keep Moving Walk as much as possible in between workouts. Park your car further away or get off the bus a couple of stops away. Take a quick walk around your building or climb a couple of flights of stairs on your next break. Always keep a good pair of walking shoes handy, in case you have unexpected time to walk.

## WHAT AND HOW TO EAT AFTER BARIATRIC SURGERY

Please <u>follow the recommendations in your nutrition book</u> and from your surgeon and nutritionist. The following is just a summary on when and how to advance your diet. You might "feel great", but advancing your diet too quickly can result in nausea, vomiting, abdominal pain, dumping syndrome, and even an unplanned trip back to the hospital. After surgery, you need to get enough:

- Fluid To help prevent dehydration.
- Protein To help you heal after surgery.

<u>Dehydration</u> - Remember, dehydration is the #1 complication of weight loss surgery. If you are having a hard time drinking enough fluids each day, or are suffering any of the listed symptoms of dehydration below, call the clinic to discuss your intake:

- Fatigue
- Nausea
- Dry Mouth
- Dark or concentrated urine
- Low urine output

You can drink any clear fluid that is sugar-free, caffeine-free, alcohol-free, and has no bubbles or carbonation in it to stay hydrated.

If you are not sure about what you can and cannot have, please refer to the information handouts or booklets you received from the Nutrition Clinic and from your Bariatric support group meeting.

If you have questions or concerns about advancing your diet, please contact your Bariatric surgeon or Nutritionist.

## **RIGHT AFTER SURGERY**

<u>Post-Op Day 1, 2, & 3</u> - Right after surgery, you will be started on ice chips and small sips of water. If you are able to tolerate this, you will advance to a clear liquid diet in the first 24 hours after your surgery. On post-op day 2-3 you will advance to a full liquid diet.

You do not need to sacrifice sleep to sip fluids. Just make sure to drink when you are awake.

Weeks 1 & 2 - Clear and Full Liquid Diet - You should be able to tolerate a full liquid diet by now. Remember that you need to drink 64 oz. of fluid daily. Use the instructions and information below to help keep you on a drinking schedule.

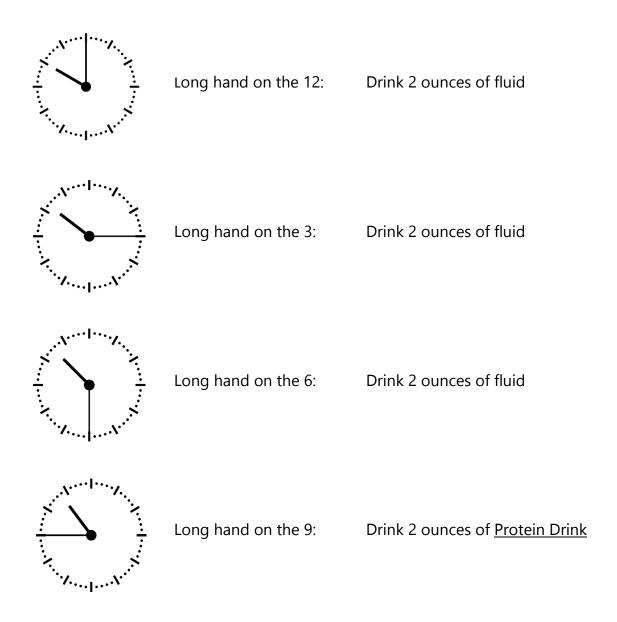
- You will need to drink fluid every 15 minutes (4 times an hour).
- Each time you drink, you will need to sip and finish 1/4 a cup of fluid (or 2 oz).

If you can do this, you will drink 8 oz. (or 1 cup) of fluid in 1 hour

- Sip slowly, so that you finish drinking over 10-15 minutes.
- Drink fluids from a smaller cup.
- Don't drink too fast, or just gulp down your fluid (you might get nausea, belly pain, and/or vomit).

One time each hour, try to make your fluid a protein drink. This means in one hour you will have 3 fluid drinks, and 1 protein drink.

You can try using a clock as an outline to help you remember to drink enough fluid and get enough protein. For example:



<u>Week 3 – Soft, Puréed, Semi-Solids</u> - All previous liquids are allowed, and you can now start adding semi-solid, soft, puréed foods to your diet. Liquids and semi-solids provide a concentrated source of nutrition that will empty from the stomach into the intestines easily and allow for continued healing (yes, you are still healing inside from your surgery).

If at any time you do not feel like you can tolerate your diet, you can go back to the previous stage for a few days up to a week to see if that helps with your symptoms.

## Things To Know:

- All liquids from weeks one and two are allowed.
- Try only one new food at a time.
- Try no more than ¼ cup of semi-solid food at a time.
- Semi-solid foods are foods that can be eaten with a spoon, and that have a consistency like applesauce or Stage 1 pureed baby food.

#### Things to Do:

- DRINK! Sip up to 1/4 cup (or 2 oz.) of fluid over 10 to 15 minutes.
- Sip slowly and try to keep a constant trickle of fluid through your body all day between trials of semi-solid foods.
- Drink 64 oz. of fluid each day to stay hydrated.
- Get 60 to 80 grams of protein each day (from both fluids and semi-solid foods). (SIPS or DS patients need 80 to 100 grams per day.)

## Things NOT to do:

- DO NOT eat anything with a skin, seeds, and/or if it has lumps or chunks.
- DO NOT gulp down food or drinks.
- DO NOT use straws
- DO NOT use sippy cups or drink from sports bottle tops.
- DO NOT have BUBBLES, CARBONATION, CAFFEINE, OR SUGAR IN YOUR DRINKS!
- DO NOT drink fluids while eating. STOP drinking fluids 30 minutes before meal and wait until 30 minutes after finishing a meal before starting to drink fluids again.

The goal now is to try and eat and/or drink enough protein every day. Your goal for each day is 60 - 80 grams of protein (or 80 - 100 grams of protein for SIPS/DS patients).

Be sure to make an appointment 4-8 weeks after your surgery to talk to someone at the Nutrition Clinic. They will teach you how to safely reintroduce soft foods back into your diet and will help you with making meal and make healthful food choices to aid in continued weight loss and healing.

## A REMINDER ON WHAT, WHEN, AND HOW TO EAT AND DRINK

Due to the change in the size and function of your stomach after surgery, there are foods and fluids that should be limited or avoided for about the first two months after surgery.

- Sugar-free
- Caffeine-free
- Alcohol-free
- Low Fat
- Low Carbohydrate
- No Carbonation or Bubbles
- No Fried Foods
- No Sticky Foods (like peanut butter)No Full Fat Foods (like whole milk)
- No Doughy Breads (like yeast rolls or biscuits)
- No Tough or Rubbery Meat (like steak, pork chops, ham, or hot dogs)
- No Fibrous vegetables (like corn, celery, or sweet potatoes)

<u>Staying Hydrated</u> - You can drink any sugar free, clear fluid to help get and/or stay hydrated. Some examples of clear liquids are:

- Sports Drinks
- Popsicles
- Gelatin or Jello
- Broth
- Water (with or without water flavor packets or drops added)

<u>Feeling Full After Surgery</u> - After Bariatric surgery, and as you start to eat more semi-solid food, the feeling of getting full might feel more like pressure, tightness, or heaviness in the center of your abdomen near the breastbone (just below the center of your chest). Learn to recognize signs of when you are full. **STOP EATING WHEN YOU FEEL FULL.** 

<u>Semi-Solid and Liquid "Foods"</u> - An example of foods that fall into this category are strained soups, bone broth, low-fat cream base soups, yogurts, hummus, mashed potatoes, and puddings. You could also try mixing in Stage 2 jar baby food meat, unflavored protein powder, or two tablespoons of non-fat dry milk to your semi-solid foods.

<u>Making Your Own Semi-Solid Foods</u> - Cook vegetables until soft enough to mash or cut them with a fork. Next, cut into thumbnail size pieces, and blend them up with enough broth, water, or low-fat milk to make an applesauce-like consistency. Strain out any lumps, chunks, seeds, or stringy pieces. It is very difficult to make a safe consistency when blending or pureeing meat, so it is not recommended.

<u>Semi-Solid Foods to AVOID</u> - Any soup with meat, vegetables, rice or noodles. No full fat or high carbohydrate anything. No oatmeal or regular refried beans, as they can be lumpy or chunky.

#### Soft Food Diet Recommendations

- You should have a meal every 3 or 4 hours
- Protein first: Start each meal with 2 oz or 1/4 cup of high protein food
- Try only one new food at a time
- Do NOT drink liquids with meals
- Drink fluids 30 minutes before or 30 minutes after your meals
- Avoid extremes in temperature (very hot or very cold foods)
- Chew food thoroughly (does it feel like you are swallowing applesauce?)
- No raw or undercooked food like sushi or raw oysters until 3 months after surgery
- Stop eating when you start to feel full
- Allow 30 minutes to finish your meals

## REMEMBER WHAT CAN CAUSE NAUSEA, VOMITING, ABDOMINAL PAIN, AND DUMPING SYNDROME:

- Eating too fast
- Eating too much at one time
- Eating or drinking things that are too hot or too cold
- Not chewing food well enough
- Drinking while eating
- Eating crunch, hard to digest foods in the first 2-3 months
- Advancing your diet too fast; eating solid food too soon
- Not following the recommendations of what to eat and what not to eat

<u>Dumping Syndrome</u> - This is a side effect due to the change in size and function of the bypassed stomach. Roux-en-Y Gastric Bypass patients may experience this problem to a minor degree after surgery if eating and drinking guidelines are not followed. The severity of Dumping Syndrome can depend on the volume of food you eat, the consistency, how much sugar and/or fat was in the food.

There are two phases: Early and Late Dumping. Some patients only experience one or the other, while some will experience both. Symptoms of early Dumping may begin as early as 45 minutes after a meal. Symptoms of late dumping may occur up to 2-3 hours after eating.

## **Early Dumping Syndrome Signs and Symptoms:**

- Abdominal cramping, pain, and/or diarrhea
- Fatigue
- Sweating
- Fast heart rate
- Flushing
- Dizziness
- Shortness of breath
- Decrease in blood pressure

## **Late Dumping Syndrome Signs and Symptoms:**

- Shakiness
- Cold Sweats
- Fatigue
- Headache
- Decrease in blood pressure

#### **How to Prevent Dumping Syndrome:**

- Do not use straws
- Do not drink carbonated drinks, or drinks with bubbles
- Do not eat food that is too hot or too cold
- Sip fluids slowly, and do not gulp things down
- Limit how much sugar and fat you eat and drink

## FREQUENTLY ASKED NUTRITIONAL QUESTIONS

<u>Is it normal to have pain after I drink?</u> - Pain, pressure, or discomfort just below the breastbone after drinking or eating is usually due to eating or drinking too much, too fast. Wait about 30 – 60 minutes, or until it feels better. To prevent this feeling, sip fluids more slowly, and take very small sips. Also, avoid anything too hot, or too cold. When eating solid foods, chew very well, take small bites and eat very slowly. Pain or discomfort that does not get better or go away is not normal and you should contact the clinic.

The taste of protein shakes makes me want to vomit...what do I do? - If you are not able to drink a protein supplement, try putting a protein powder or 2 Tablespoons of non-fat dry milk powder (about 5 grams of protein), into broth or soup. Remember that your broth or soup must be a smooth consistency and without lumps or chunks. For safety, run your broth or soup through a fine mesh strainer to remove any chunks or particles.

<u>When can I start to eat solid foods?</u> - After 3 weeks on a mostly liquid diet, you should be scheduled to have a follow up appointment with the Nutrition clinic to review how to safely and successfully reintroduce soft foods. You should not start soft foods until you have this appointment or discuss it with your surgeon. To schedule an appointment with the Nutrition clinic for soft diet instructions, please call the clinic at 253-968-0547, then choose option 2.

What should I do if I have nausea that won't go away and is not related to eating? Nausea is common after weight loss surgery. Dehydration is a common reason for nausea. To prevent nausea, make sure you get in at least 64 oz. of fluid each day. If you are still nauseous on a daily basis and unable to drink enough, call the surgical clinic to discuss your symptoms.

What should I do if I am vomiting? - Vomiting usually happens when you are eating or drinking too much, too fast, swallowing too big a bite, don't chewing well enough, or eat something with too much sugar, fat, or grease. Vomiting that it is not related to eating or drinking, is not common. If you are having nausea and vomiting on a daily basis, call your surgical clinic to discuss your symptoms.

<u>Am I lactose intolerant?</u> - Lactose intolerance is your body's inability to digest the naturally occurring sugar found in milk and dairy products called lactose. If you cannot tolerate lactose after surgery, talk to your nutritionist about trying lactose-free milk or a milk alternative product like soy, oat, almond or coconut milk.

Symptoms of lactose intolerance:

- Cramping
- Gas (Flatulence)
- Bloating
- Loose stools
- Nausea

Will food taste different to me after surgery? Will there be foods that I no longer want, and others that I do want? - Yes, it is possible that your tastes might change after Bariatric surgery. Don't be surprised if the protein drink or certain foods you liked or were able to tolerate before surgery do not taste as good (or even terrible) after surgery.

<u>Will I have bad breath or bad smelling body odor after surgery?</u> - Bad breath can happen with rapid weight loss. This happens because your body will be using fat as an energy source. To correct or prevent bad breath, increase your intake of fluid to help flush the by-products of your new metabolism out of your system.

Why is carbonation (bubbly drinks) not allowed after surgery? - Carbonated drinks or drinks with bubbles or fizz have carbon dioxide gas. This gas expands when it gets to your stomach and can pain or discomfort. It can also make you feel fuller than you are, which will make it harder for you to eat and drink enough of the things you are supposed to be eating and drinking.

Why is caffeine limited after surgery? - Caffeine is a diuretic. Diuretics help your body get rid of water and can dehydrate you. Diuretics can = dehydration. Remember, dehydration is the #1 complication of any weight loss surgery, so you should avoid diuretics. It will help you prevent any additional challenges you might have with staying well hydrated.

How do I find the Bariatric surgery support group? - Your Bariatric Nurse Case Manger(s) should have given you this information. Please contact them for the most current information on locations, and times.

<u>Can I drink alcohol again after surgery?</u> - Alcohol has much more effect after Bariatric surgery. Most people feel the effects of alcohol after only a few sips. And alcohol has a lot of calories that can sabotage your weight loss goals. For this reason, we recommend patients avoid alcohol for at least 1 year after surgery. After one year, you can have alcohol again, but you should only have it rarely and in very small amounts.

## VITAMIN AND MINERAL SUPPLEMENTS

Depending on the type of Bariatric surgery patients have, some will need to take vitamin and mineral supplements every day, for the rest of their life. Your Bariatric surgeon will write the prescriptions and instructions for what you will need to take every day, and when to start taking them. If you prefer to pay for your own vitamins, please let your surgeon know which one you are taking (or plan to take).



<u>Multivitamin</u> - Not all multivitamins have the same amount or types of vitamins and minerals in them. And not all multivitamins are absorbed by your body in the same way. Your Bariatric Surgeon will prescribe an appropriate chewable or liquid multivitamin for you to take and will let you know when you should start taking it.

If you want to use a multivitamin other than the one your Bariatric Surgeon has prescribed to you, please be sure to discuss it with them.

There are many different companies that sell vitamins and mineral supplements that are supposed to be appropriate for Bariatric patients. Some are prescription and some are available over the counter at your local grocery store or pharmacy. Some common over-the-counter chewable multivitamins that might be appropriate for your needs are:

• Centrum Complete Chewable www.centrum.com

Optisource Chewable www.walgreens.resource.com

• Flintstone Chewable www.bayercare.com

<u>Calcium Citrate</u> - You will need to have about 950 mg of calcium every day. Calcium citrate is more easily absorbed by your body than other forms of calcium, but it does not always come in a chewable or liquid form. It can also be harder to find and be more expensive.

Remember to try and take Calcium at least 2 hours before or after you take any of your other vitamins or minerals (except Vitamin D), so that you get the best absorption from all your supplements. You can take calcium and Vitamin D together.

<u>Iron</u> - You may need more iron than what might already be in your multivitamin. This will be checked as part of your routine labs, and you will be informed if additional iron supplementation is needed. Iron supplements can come in a chewable or liquid form, and you may be instructed to take in a total of 45-60 mg every day.

 Please know that iron supplements can make you constipated, and it can also turn your stool dark with a greenish-black color.

<sup>\*</sup> Again, talk to your Bariatric surgeon about what you need.

<sup>\*\*</sup> Bariatric Patients will be prescribed both a multivitamin and a calcium supplement \*\* as part of their discharge medications to take home with them after surgery.

### PREVENTING CALCIUM OXALATE KIDNEY STONES

The information in this section only applies to patients that have a history of Calcium Oxalate kidney stones. If you are unsure about your history of kidney stones, please ask your Primary Care Manger (PCM) about this.

Oxalate is a mineral found in food that can cause kidney stones in some people. Kidney stones are caused by a buildup of certain minerals in the urine, like oxalate.

If you have had calcium oxalate kidney stones in the past, you are more likely to develop these again after Bariatric surgery.

Eating a Low-Oxalate Diet, reducing your salt intake, and drinking plenty of water can help prevent new calcium oxalate kidney stones from forming.

For more information about Low Oxalate Diets, please talk to a Nutritionist or Nephrologist.

# GENERALLY RECOGNIZED AS SAFE AND WELL TOLERATED POST-OPERATIVE BARIATRIC MEDICATIONS

#### For Pain

Acetaminophen (Brand names: Tylenol, APAP, Paracetamol)

Narcotic pain medication, short course monitored by a provider

#### For Constipation:

• Fiber supplements (Brand names: Metamucil, Benefiber)

• Milk of Magnesium (Brand names: Phillips, MOM)

Bisacodyl suppository
 Phosphosoda enema
 Polyethylene glycol
 (Brand name: Dulcolax)
 (Brand name: Fleet)
 (Brand name: MiraLax)

### For Allergy, Cold and Flu-like Symptoms:

Oxymetazoline nasal spray (Brand name: Afrin, for no more than 3 days max!)

Pseudoephedrine (Brand name: Sudafed)Phenylephrine (Brand name: Sudafed PE)

• Antihistamines (Brand name: Benadryl, Claritin, Allegra, Zyrtec)

Cough syrup with or

without dextromethorphan (Brand name: Robitussin DM)

## POST-OPERATIVE BARIATRIC MEDICATIONS TO AVOID

- Avoid NSAIDs, as they increase the risk of gastrointestinal ulcers and bleeding.
   This includes, Asprin, Advil, Motrin, Naproxen, Alleve, Ibuprofen, Excedrin, etc.
- Oral contraceptives are better than nothing, but the least favorable form of contraception after Bariatric surgery.
- Avoid extended release or enteric coated medications (ie: CR, SR, XL, XR).
- Avoid oral steroids (inhaled or topical are generally ok).
- Avoid oral Bisphosphonate medications for osteoporosis (inhaled generally ok).
- Some antibiotics are not recommended or are not well absorbed like ones with an Erythromycin base, Nitrofurantoin, & Cephalexin.
- Some blood pressure, cholesterol, diabetes and behavioral health medications are not safe or well absorbed after Bariatric surgery. Be sure to discuss their continued use with your Bariatric surgeon, Primary Care Manager (PCM), and/or Behavioral Health provider.

If you are not sure about how safe or effective a medication is for you after Bariatric surgery, ASK!

## PANNICULECTOMY / ABDOMINOPLASTY (SKIN REMOVAL SURGERY)

Please know that many health insurance companies (including Tricare) <u>do not</u> guarantee that these types of surgeries will be fully covered or paid for by your health insurance.

You might have to pay for some, or all of the costs related to these types of surgeries out of your own pocket!

After weight loss excess skin and fat can cause irritation, rashes, and/or infections in the skin folds of the abdomen, make it difficult to walk and perform other physical activities, and generally distort the appearance of the abdomen, hips, and/or breast areas. If you have any of these concerns, it may be beneficial to speak to your Bariatric or Plastic surgery providers about them.

Good candidates for these types of surgeries are at a stable weight, otherwise healthy, have realistic expectations, and do not smoke. <u>A minimum of 18 months from surgery is required</u> to prove weight stability before considering excess skin removal.

If you would like more information about the different types of surgeries that might help address your concerns, please ask for the booklet:

"Patient Guide for Panniculectomy / Abdominoplasty".

## REFERENCES AND CREDITS

- After 30 Years New Guidelines For Weight-Loss Surgery. (n.d.). American Society for Metabolic and Bariatric Surgery. https://asmbs.org/news\_releases/after-30-years-new-guidelines-for-weight-loss-surgery/
- Allison, D. B. (1999). Annual Deaths Attributable to Obesity in the United States. JAMA, 282(16), 1530. https://doi.org/10.1001/jama.282.16.1530
- Biliopancreatic diversion with duodenal switch (BPD/DS) Mayo Clinic. (n.d.). www.mayoclinic.org. https://www.mayoclinic.org/tests-procedures/biliopancreatic-diversion-with-duodenal-switch/about/pac-20385180
- Elder, K. A., & Wolfe, B. M. (2007). Bariatric Surgery: A Review of Procedures and Outcomes. Gastroenterology, 132(6), 2253–2271. https://doi.org/10.1053/j.gastro.2007.03.057
- Laparoscopic Roux-en-Y Gastric Bypass | Ethicon. (2024, September 30). J&J MedTech. https://www.jnjmedtech.com/en-US/procedure/overview/laparoscopic-roux-en-y-gastric-bypass
- Malnick, S. D. H. (2006). The medical complications of obesity. QJM, 99(9), 565–579. https://doi.org/10.1093/qjmed/hcl085
- Miller AD, Smith KM. Medication and nutrient administration considerations after bariatric surgery. Am J Health Syst Pharm. 2006 Oct 1;63(19):1852-7. doi: 10.2146/ajhp060033. PMID: 16990631.
- Single Anastomosis Duodeno-Ileal Bypass with Sleeve Gastrectomy. (2023, August). American Society for Metabolic and Bariatric Surgery. https://asmbs.org/condition\_procedures/single-anastomosis-duodeno-ileal-bypass-with-sleeve-gastrectomy/
- Sjöström, L., Lindroos, A.-K., Peltonen, M., Torgerson, J., Bouchard, C., Carlsson, B., Dahlgren, S., Larsson, B., Narbro, K., Sjöström, C. D., Sullivan, M., & Wedel, H. (2004). Lifestyle, Diabetes, and Cardiovascular Risk Factors 10 Years after Bariatric Surgery. New England Journal of Medicine, 351(26), 2683–2693. https://doi.org/10.1056/nejmoa035622
- Sleeve Gastrectomy | Ethicon. (2024, September 30). J&J MedTech. https://www.jnjmedtech.com/en-US/procedure/overview/sleeve-gastrectomy
- Woodbury, R. (2024). Healthy Steps Weight Loss Center. https://healthystepsinfo.com



## **CONTRACT FOR BARIATRIC/METABOLIC SURGERY**

 these instructions and it is expected by the Bariatric Surgery Service that each will be adhered to explicitly
_ I confirm that I attended a Bariatric Orientation, and I fully understand the nutritional consequences of Bariatric surgery.
_ Studies show that patients who participate in a support group have a higher success rate in the long term I will attend 1 support group meeting once a month until my surgery
 _ I will strictly follow preoperative diet instructions. I understand this diet allows for shrinking of a fatty live and will help me have a safer operation.
_ I am aware I <u>must not gain weight</u> from the date of my orientation, or I will not be cleared for surgery. I understand that there is no limit to the weight I am allowed to lose before surgery, and significant weight loss before surgery <u>will not</u> disqualify me from surgery.
Exercise is essential to preventing weight regain. I will perform daily physical activity and exercise before and up to my operation and will resume this exercise program after my operation. I agree to attend an educational session with the Army Wellness Center (AWC) for exercise instruction at least once before my surgery and at least once within 3 months after my surgery.
 _ I understand and consent to random drug, alcohol, and nicotine testing.
_ I understand the Bariatric Surgery service will manage my acute postoperative pain for up to 30 days after surgery. After this, pain management issues must be seen by a specialist. If I have an existing pain contract, I will provide a letter from my providers stating that they are aware that I will be receiving pain medications after surgery.
 _ I will notify the Bariatric clinic if, during the preoperative process, I find out that I am moving, PCS'ing, ETS'ing, or will lose Tricare coverage.
 _ I am aware that I must stay in the area for 12 months following surgery in order to receive the best continuity of care with the Bariatric medical providers.
_ I will keep all follow-up appointments with the Bariatric Clinic as scheduled and obtain laboratory studies as directed. I agree to long-term follow-up care with Bariatric Program, which is recommended for a minimum of five (5) years.
 I understand that the Bariatric Clinic will not assume responsibility for my primary care needs. I agree to establish and maintain care through a primary care manager (PCM), and any other essential health care providers, through Madigan's or other non-military primary care or family medicine services.
 _ I understand that having three no shows (not including patient or facility cancellations) to any appointments during the preoperative phase will result in dismissal from the program.

I will adhere strictly to the postoperative diet. I guidelines after surgery.	understand the importance	of following nutritional
I understand the importance of monitoring fluid carbonated beverages should be avoided perma one year after surgery.		
I agree to take nutritional supplements and med medications or use of my CPAP/BiPaP/APaP with		
I will see a Nutritionist 4-8 weeks after Bariatric s understand that maintaining a food journal after		•
The effects of nicotine following Bariatric surgers stomach bleeding, ulcers, perforation, gastrointed potential death. I will not use nicotine products devices, hookah, or e-cigarette.	estinal problems requiring e	emergency surgery, and
I am aware that it is my responsibility to call and Bariatric and nutrition clinics. I understand that If I am having difficulty with weight loss or nutrit PCM, behavioral medicine, nutrition, and/or nurs	I need to take responsibility ional issues, I understand I	y for my weight management. should contact my surgeon,
I will not become pregnant for 18-24 months aft medically optimized for my health and the healt NOT be effective after surgery and that two alte consult with an obstetrician for a pre-pregnancy surgery.	h of my unborn child. I unc rnative methods of birth co	derstand birth control pills may ontrol are recommended. I will
I agree to avoid plastic surgery for excess skin remy weight loss to become stable. I understand liposuction, or any other plastic surgery proceduwill need to consult with a surgeon who perform these types of surgeries may be not covered be responsible for paying the full cost of these	that a panniculectomy, abd ires like these may not be r ns these types of procedure by Tricare or other health	dominoplasty, breast lift, medically necessary and that I es. I also understand that insurances and that I might
 I understand that I may be approached to partic give these requests consideration prior to accep		
I understand that in order to remain in 'active state program in a timely manner. Beginning from days to complete my lab work and call the Baria special documented circumstances, after 6 months.	n the date of the Orientatio tric clinic to schedule my in	n Seminar, I have thirty (30) nitial visit. Unless there are
Patient's Printed Name:		
Patient's Signature:		Date: