

# Steps toward a healthier future:

## Bariatric Surgery Program Guide

**Please bring this notebook to:**

- Provider Seminar Class
- Psych Assessment
- Pre-Consult with Surgeon
- Pre-Op Consult with Dietitian
- Day of Surgery
- Post Op Appointments

DEPARTMENT OF GENERAL SURGERY

[kp.org/wa](http://kp.org/wa)

Updated April 2020

DA1940000-01-20



# Table of Contents

1. Welcome & Overview .....	2	7. Vitamins, supplements & medications .....	124
Care Team Contact Information .....	5	Probiotics.....	134
Map & driving directions .....	6	Recommended supplement brands .....	135
2. Pre-op checklist .....	10	8. Post-op concerns .....	136
Provider Seminar .....	11	Hydration / dehydration .....	137
Weight loss requirement.....	12	Nausea / vomiting.....	138
Nutrition counseling requirement.....	13	Constipation .....	139
Support group .....	13	Dumping syndrome: .....	140
3. Metabolic & bariatric surgery .....	14	When/who to call .....	141
4. Pre-paring for surgery.....	24	9. Follow-up appointments .....	142
Time-off for recovery .....	24	10. Keys to success .....	144
Birth control.....	27	Food journaling.....	145
Smoking:.....	27	Newsletter & web page .....	146
Sleep apnea.....	28	Emotions.....	148
kp.org/wa .....	29	Sleep apnea / post op .....	149
Hotels.....	30	Hair loss.....	150
5. Pre-op instructions.....	32	Excess skin .....	151
day of surgery .....	35	11. Resources you find helpful .....	152
hospital stay.....	36	12. Poem .....	154
6. Nutrition plan.....	44	13. Glossary of terms .....	156
Laying the foundations .....	45	14. Document your measurements .....	160
Pre-op diet .....	64	15. Free space for documents you'd like to add to your notebook	
Day before surgery diet .....	70		
Post-op diets: stages 1-5.....	71-99		
Protein 101 .....	100		
Frequently asked questions.....	118		



# We are pleased to welcome you into our Bariatric Surgery Program.

Please be advised that your approval is for the program. You will need to have your bariatric benefit at the time of surgery, which will be verified once your surgery is scheduled. Please notify us if you have a change in your benefits. *Do not* be concerned about the expiration date on your authorization letter. Your surgery *does not* need to be completed by that date.

We would like to introduce you to the overall process of this care and the team of health care providers who will be working with you throughout your experience. You are an important part of the team and will be actively involved in your care as you participate in this program. Adequate preparation and planning before surgery and your active involvement after surgery will help you accomplish the best possible results.

This notebook is your program information guide. It describes the steps leading up to surgery, what to expect during your hospital stay and recovery, and how to maintain long term benefits from the procedure. **Please keep this notebook!** You will find the answers to many of your questions, both before and after your surgery.

We are committed to helping you throughout this life-changing and sometimes challenging experience. Working together, we expect a difference in your long-term health. Keep this worthy goal in mind to help cope with any frustrations you may encounter along the way.

In order to continue to improve the care we provide, we ask for your feedback and suggestions.

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*Did you know? Our bariatric surgery program helped earn Overlake Hospital a coveted HealthGrades 2018 Bariatric Surgery Excellence Award – and status in the top 5% for bariatric surgery excellence nationally.*

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## Keep Up the Momentum

Once you get your notebook, read through it – and begin your journey toward weight loss and improved health.

The medical testing and consults necessary will be ordered for you. Please keep in mind that if any follow-up is recommended as a result of any testing or consults, that must also be completed. This might include a sleep study or treatment / therapy for depression or eating disorder assessment and possible treatment. When further Gastroenterology testing is required, that also extends your time in the program.

It may seem like a long and possibly intimidating to-do list and you can expect the medical testing and pre-op work-up process to take possibly 4-6 months to complete. You may also have the ability to complete the process in less time. This depends largely on your motivation and continued momentum through the steps.

If you are delayed to treat depression, an eating disorder or other issue, please follow through with the recommendations. We know that this can be upsetting, to be delayed, however following through on the recommendations will only serve to benefit you. Untreated or under-treated depression and eating disorders can result in problems following surgery – sometimes significant problems that could result in hospitalization and in rare incidence another surgery.

Our goal is to make sure you are ready and thoroughly prepared for your surgery. Being proactive and motivated can make the process move along a bit faster and smoother.

Our growing team of bariatric professionals are here to assist all along your journey, from today and for many years to come!

# Welcome to the Kaiser Bariatric Surgery Program

We enjoy this field of surgery as we get to cure more disease than any other field of Medicine or Surgery. With one operation, we achieve resolution or remission of type 2 Diabetes, hypertension, high cholesterol, sleep apnea, morbid obesity, and urinary incontinence (females) in greater than 90% of patients. For less than the average-annual cost of insulin for a given patient, we induce a remission of the diabetes in 90% or more of patients (96% in the Kaiser Permanente (formerly Group Health) gastric bypass data base).

The Four Pillars of any successful Bariatric Surgery Program are the Surgical, Medical, Behavioral, and Nutritional components. Our Bariatric Program is expanding to include pre-operative and post-operative help from each of these components.

Our Bariatric Program was started in 1994.

**Dr. Anirban Gupta** joined Kaiser Permanente (formerly Group Health) in 2016, transitioning his practice from Ohio where he developed a MBSAQIP-Accredited bariatric program from the ground up. He completed a Laparoscopic and Endoscopic Fellowship in Bariatric Surgery at Johns Hopkins in 2008 and completed his General Surgery training in University of Toronto in 2007.

**Dr. M. Imad Haque** joined Kaiser Permanente in 2020, transitioning his practice after a 21 year career as an Army General, Trauma and Bariatric Surgeon at Madigan Army Medical Center. He completed a Fellowship in Advanced Laparoscopy (Bariatrics), Endoscopy, and Ultrasound Fellowship at St. Vincent Hospital Medical Center and Indiana University Medical Center in 2008. He completed his General Surgery residency at Madigan Army Medical in 2003. He established the first multidisciplinary bariatric surgery program for the Department of Defense in Europe in 2004. Dr. Haque retired as a Colonel in the Army. He has multiple deployments to Syria, Iraq, and Afghanistan. He is passionate about surgical process improvement and brings advanced Robotic Surgery (DaVinci) experience to the program.

**Dr Shireesh Saurabh** joined Kaiser Permanente in 2019. He is a board certified general and bariatric surgeon. He was in a practice in Iowa for 5 years, where he established an accredited bariatric surgery program. He completed his general surgery training at Drexel University in 2013 and bariatric surgery fellowship at University of Iowa in 2014.

**We look forward to continuing our tradition of Bariatric excellence, with you as our partners!**

# Care Team

Your care takes place in different settings and is coordinated by the Bariatric Surgery Program team, to make sure you have a successful and safe procedure. The team will provide you with information to make sure you are ready for surgery and assist with your recovery afterwards. Each team member has a special role and responsibility.

## Kaiser Permanente Bellevue Medical Center

**Our Bariatric Clinic is a part of the *General Surgery Clinic***

**Hours:** 8:00 am to 5:00 pm, Monday through Friday

**Phone:** 425-502-3454 **Toll-free:** 1-800-995-5658, extension 3454

**Bariatric Surgeons:** A general surgeon with specialized training in bariatric surgery.

- Dr. Anirban Gupta
- Dr. Shireesh Saurabh
- Dr. Imad Haque

**Bariatric RN Case Manager:** A Registered Nurse (RN) manages the pre-op process/medical work up and post op triage for problems / concerns. Phone: 425-502-3454

**Bariatric Dietitian:** Dietitian with specialized training and experience to provide dietary evaluation, education, and counseling. Phone: 425-502-3454

- Lisa Stariha
- Fionna Marave

**Bariatric Psychologist:** Our bariatric psychologist specifically works with you to find successful ways to meet your healthy lifestyle goals.

- Dr. Janet Ng

**Bariatric Physician Assistants (PA) and Nurse Practitioner (ARNP):** with special education and experience with bariatric surgery and bariatric follow up care.

**Medical Assistant (MA):** will assist in scheduling of appointments and coordination of care



# Bellevue Medical Center

11511 N.E. 10th St.  
Bellevue, WA 98004  
425-502-3000

**Note:** Traffic can be difficult at any time of day, coming from any direction.

## Please allow enough travel time

### From Interstate 405 southbound

- Take Exit 13B for N.E. 8th Street East/West.
- Turn right onto westbound N.E. 8th Street.
- Turn right onto 112th Avenue N.E.
- Turn right onto N.E. 10th Street, driving over I-405.
- Turn right into the medical center.

### From Interstate 405 northbound

- Take Exit 13A for N.E. 4th Street.
- Turn right onto N.E. 4th Street.
- Turn left onto 116th Avenue N.E.
- Turn left onto N.E. 10th Street.
- Turn left into the medical center.



**\*\*\* Note: Parking fee runs from \$3.00 - \$7.00 \*\*\*\*\***



# Entering the Bariatric Surgery Program

Medical research has shown that Bariatric Surgery is a safe and effective way to lose weight and improve health for a specific group of patients. Our Bariatric Surgery Program is structured to help those people reach their health goals. To help you get started and to know what to expect, the steps of the programs are listed below.

## **Primary Care patient identification:**

You and your primary care physician decide that you may benefit from this surgery. Your doctor submits a Bariatric Referral to the Bellevue Bariatric Surgery Department, for review.

## **Medical record and coverage review by Clinical Review Unit:**

Your medical history and individual insurance coverage are reviewed based on the criteria established by your health plan.

## **Welcome and Introduction to Bariatric Surgery Program:**

You will receive your Bariatric Notebook, Step's toward a Healthier Future, at your first office visit. You can also find the digital binder on the bariatric website, or we can send you a link via your kp.org email.

## **Bariatric Surgery Process:**

If we don't answer all of your questions after the Provider Seminar, or you think of more questions, please jot them down for your next visit. At your first consult visit we will identify your needs and order your labs and other tests. You may be sent to other specialists for pre-op work up.

## **Evaluation by other medical specialists as needed:**

All consultations/assessments requested by our pre-op, Nurse Practitioner and/or your primary care provider must be completed, as well as any follow up that might be recommended as a result of those tests/consults/assessment. For example, the sleep medicine provider may recommend a sleep study. You must follow through with that as well as any recommendations made based on the results of the sleep study.

This further evaluation helps to make sure you are medically ready for surgery. We will not be scheduling a consult with the surgeon until the medical work up has been completed.

# Preparing for Bariatric Surgery

Once you receive your notebook, please **read** it through carefully. Failing to review all information may result in missing important information and delaying your progress.

## **Provider seminar attendance is mandatory**

### **Unsure?**

If you are ambivalent or on the fence at all about moving forward with surgery, we absolutely recommend that you attend this class before deciding not to proceed. This will allow you to make the most educated decision, with information from the surgeon and dietitian.

### **Contacting the Bariatric Clinic**

If your call is answered by the call center, please leave a message. Calls are returned based on priority, with post op patients being called back first. You can be assured if you are calling **prior** to your surgery; you will receive a call back, typically the same day. Please be patient! If you are calling **after** your surgery, your call will be returned within an hour or two of your message. Post-op patients can also call the General Surgery nurse at 425-502-3450 for more immediate assistance.

**kp.org/wa** email is an excellent way to communicate. If you do not have this option, please see section 4 for more information about it and how to sign up.

# Pre-Op Checklist - Steps to complete before surgery

Please do not hesitate to call our office with any questions or concerns about completing this checklist.

Call: 425-502-3454 or e-mail through kp.org/wa or the Kaiser Permanente Washington mobile app (reply to Bariatric RN email)

Step	What to expect	Date / Time	Complete?
Provider Seminar	See details on next page.		<input type="checkbox"/>
Initial Visit & Nutrition Class	Develop individualized care plan		<input type="checkbox"/>
Psychology Visit	Schedule visit after attending the Provider Seminar. (Must attend prior to assessment)		<input type="checkbox"/>
Questionnaires	Complete questionnaires and bring with you to your first office visit.		
Pre-op Visit & Class			<input type="checkbox"/>
Appointments	<input type="checkbox"/> Labs..... <input type="checkbox"/> <input type="checkbox"/> Chest X-ray..... <input type="checkbox"/> <input type="checkbox"/> EKG..... <input type="checkbox"/> <input type="checkbox"/> Sleep Consult..... <input type="checkbox"/> <input type="checkbox"/> Pulmonary Consult..... <input type="checkbox"/> <input type="checkbox"/> Other:..... <input type="checkbox"/> <input type="checkbox"/> Other:..... <input type="checkbox"/>		

**Call or e-mail Pre-Op Nurse when all of the above have been completed**

Phone: 425-502-3454 E-mail **(reply to previous email)** using kp.org/wa or the Kaiser Permanente Washington mobile app

Pre-op Visit & Class	Meet in the morning with your surgeon to develop a plan for surgery. In the afternoon, attend a small group class to prepare you for safe surgery and after-surgery care.	Date / Time:	<input type="checkbox"/>
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**In addition to the above requirements, all patients must lose weight prior to surgery**

The required amount of weight loss depends on your weight / BMI at the time of your referral into the program. Patients with BMI's higher than 60 may have a required weight loss goal prior to surgery. This is determined on an individual basis.

**\*\*See Section 6 for suggestions to get you started in meeting this goal now\*\***

My weight loss goal is:  _____	My weight at Pre-op is:  _____	My weight after surgery is:  _____
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## **Provider Seminar**

This 90-minute class will include presentations from one of our surgeons and provides valuable information to help you prepare for your surgery, hospital stay, as well as address mental health and the importance of developing diet and exercise routines.

Please feel free to have your support person view the presentation with you. The information presented will help your support person to better support you in this journey. **Class attendance is a requirement prior to being scheduled for your consults.**

**Where: This seminar will be presented as an online education class**

**When: 8:30 a.m. to 10 a.m.**

**If you cannot attend on the day you are scheduled for, please reschedule.**

## **Pre-Op Consults**

It takes an average of 4-6 months to get through the program. The preop consult is your last step before being scheduled for surgery.

Once you have met your goals and completed your testing and recommended therapies, our office will call you to schedule the consults with the surgeon and dietitian. After being scheduled for surgery, you will need to be sure to get your preop physical exam, labs and EKG within 30 days of your surgery date.

**If you are unable to make your scheduled appointment, please notify the bariatric clinic in advance, so that the appointment can be rescheduled: 425-502-3454.**

# Weight Loss Requirement

## **Reason:**

The weight loss requirement helps to make your surgery safer and more likely to be laparoscopic, as losing weight shrinks the liver. The liver lies over a portion of the stomach that the surgeon will be working on. The term fatty liver refers to fat accumulation in the liver. If the liver is too large and can't safely be moved out of the way, your surgery may need to be converted to an open procedure, which certainly results in more post-surgical pain and requires additional healing time. Losing just 5% of your total body weight will result in a decrease of fat in the liver.

Making healthy eating and life style changes prior to surgery also shows acknowledgement that this is not a quick fix and will require that you make changes for sustained results and it shows compliance with the recommended changes prior to surgery.

## **How to make this happen:**

There is no particular diet or plan outlined to accomplish the pre-op weight loss. Reading through the diet guidelines in section 6 will help you to begin to make some changes in advance of surgery. Most often making these changes will result in weight loss.

A good place to start might be downsizing meals, eliminating refined carbohydrates, such as bread, pasta, cookies, crackers and pastries. These are changes that will be required after surgery. Making small changes, one at a time helps to develop new habits. This is a good time to begin to make those small changes, as they will help in reaching the 5% weight loss goal.

Beginning to add exercise to your daily routine will also assist in meeting this goal. Try adding short walks to your daily routine, which burns calories. Add additional exercise as tolerated. Every little bit will help in establishing new habits and burning calories.

## **What does the weight goal mean for you?**

At your first video visit with the Surgeon, we will discuss your weight loss goal. We begin watching your progress by using your weight at the time of your referral into the bariatric program. We want to see a general downward trend. If you are working on your healthy habits you will see this happen.

## **Requirement:**

During the last 2 weeks before your scheduled surgery, you will be asked to follow a Liver Shrinking Diet. Patients with a BMI of over 50 may be asked to stay on this Liver Shrinking Diet a little longer. The RN's and dietitians will work with you in your phone visits as you reach your weight loss goal.

# Nutrition Counseling

Nutrition counseling is mandatory before and after surgery.

Nutrition Counseling:

- Initial visit
- Scheduled goal setting phone visits
- Pre-op consult
- Post op: coordinated with post op appointment (7-10 days post op)
- 2 month follow up: coordinated with 2 month clinic follow
- 6 month follow up: coordinated with 6 month clinic follow
- Ongoing access through phone and email communication (pre and post op)

Nutrition section of this notebook (section 6) will provide recommendations for pre-op diet and lifestyle changes that will assist you in meeting your weight goal as well as help to begin to make changes in preparation for life after surgery.

Making changes prior to surgery will help to make surgery safer and life after surgery that much easier.

You will find guidelines for each stage of the post op diet. The guidelines are meant to assist you in making healthy / appropriate food choices along the way.

**Call or email Bariatric Dietitian** with any questions that you may have about the nutrition requirement.

## Bariatric Support Group

Please see information about upcoming support groups on our web page:

<http://www.kp.org/bariatric-patients/>

# Undergoing Bariatric Surgery

## What is Bariatric Surgery?

There are several different surgical procedures which are classified as *Bariatric Surgery*. The three surgeries that are performed at Kaiser are *Gastric Bypass (Roux-en-Y)* and *Laparoscopic Adjustable Gastric Band (Lap Band)* and *Laparoscopic Sleeve Gastrectomy*. One or more of these operations may not be covered depending upon your bariatric coverage.

## Roux-en-Y Gastric Bypass Surgery (RNY)

The Gastric Bypass procedure has passed through several evolutions and modifications before it reached its present state but the operation has been around for more than 30 years and the long term results are well established. This operation bypasses about 97% of the stomach and creates a tiny pouch at the top of the stomach, about one ounce in size. The pouch is created by dividing a small portion of the upper stomach completely from the rest of the stomach, with a stapling/cutting device. The food passageway is re-established by connecting the upper small intestine, or *jejunum*, to the small pouch with a 10 – 12mm (1/3") *anastomosis*, or connection. In time, this one ounce pouch becomes more pliable and efficient, allowing one to eat larger, but still smaller quantities of food. Over time, usually one to two years, weight loss will stop. The Gastric Bypass Procedure is the most commonly performed bariatric procedure done in the United States.

The surgery can be performed via *open procedure* or by a *laparoscopic procedure* approach but most procedures are done by the laparoscopic approach. If the surgery is done by an open procedure, the incision extends from the breast done to the navel. If the surgery is done by the laparoscopic procedure, there are 5-6 small incisions. During the operation, the abdomen is filled with carbon dioxide air and a camera is inserted through one of the openings. The operation is done while watching a high definition picture on a monitor. Occasionally a laparoscopic surgery needs to be converted to an open procedure. The procedure appropriate for you will be determined by the surgeon and discussed with you. See the diagram for the illustration of the anatomy following *Roux-en-Y Gastric Bypass Surgery*.

**How is food digested after surgery?** When food is swallowed it enters the small upper pouch of the stomach. This part of the stomach holds only about one ounce of liquid or 2-3 small bites of food, at one time. From the upper pouch the food passes through a very small opening (about 1/3" diameter) into the upper small intestine or *jejunum*, where nutrients are absorbed. Before surgery, the stomach ground the food into digestible portions. The new small pouch stomach does not do this. For the first month after surgery, food must be pureed or blenderized. Thereafter, thoroughly chewing food before swallowing allows easy passage into the small intestine. The *digestive enzymes* produced by the lower stomach, pancreas, and the liver empty 40-60 inches from the stomach pouch-intestine connections. By making the connection close to the stomach, the majority of the small intestine absorbs very well (only about 1/5 of the small intestine does not have bile and pancreatic enzymes mixed immediately with the food). This helps to avoid the unpleasant side effect of *malabsorption*.

# How does Gastric Bypass Surgery help you lose weight?

This surgical procedure works by creating *satiety* or the feeling of being full and comfortably satisfied. When the stomach walls are stretched by food, a message is sent to the brain, giving a signal of appetite satisfaction. After *gastric bypass surgery*, a small meal in the pouch creates the same feeling as if you had filled the whole stomach with a very larger feast-type meal. This surgery changes the way the appetite center in the brain works. Your brain tells you to eat smaller, healthier amounts of food.

The small size of the pouch also prevents you from eating too much at any one time. One small bite beyond satisfaction of hunger will create a stuffed feeling; another small bite will cause nausea; any additional food will cause pain and vomiting.

The duration of the feeling of satisfaction when eating small amounts depends not only on the amount of food in the stomach, but also the length of time that the stomach remains filled. If you drink liquids with meals, or within 60 minutes after eating, the thoroughly chewed food is washed through the pouch, causing rapid emptying, resulting in the sensation of hunger returning sooner, long before the next mealtime.

The goal for successful weight loss is to fill the small pouch with foods that are nutritious, bulky in volume, and do not empty from the stomach pouch too rapidly. This kind of meal is not difficult to achieve and we will assist you in making these appropriate food choices. High calorie liquids, which readily pass through the small connection, scarred ring of the stomach outlet are absorbed in the bowel and cause weight loss to be slowed or even stopped. For this reason, high calorie liquids must be avoided.

The gastric bypass has an effect on a hormone produced in the intestine called Ghrelin which controls appetite in the brain. After gastric bypass the amount of Ghrelin produced in the stomach and small intestine is greatly reduced and this results in a marked decrease in appetite.

The third major effect, that occur after gastric bypass that helps in weight loss is a condition called dumping. In the normal stomach foods that have a high fat or sugar content are diluted and processed by the stomach. There is a valve at the end of the stomach that releases this processed food into the small intestine where digestion occurs. With gastric bypass this function of the stomach is bypassed so that if these foods are eaten in any significant amount it causes dumping. When foods that are high in sugar or fats like juice, milk shake, ice cream, cake go directly into the small intestine after gastric bypass, fluid is pulled into the intestine and patients feel weak, sweaty, have a rapid heart rate and can get diarrhea. These effects remind patients that these foods should not be eaten. The amount of dumping patient experience can be quite different, so the best option is to avoid these types of foods.

## What are the results of Roux-en-Y Gastric Bypass Surgery?

Success of the surgery is measured by achieving improved health and not specifically upon amount of weight lost. Conditions such as *diabetes*, *sleep apnea*, *hypertension*, *reflux* and *arthritis* are expected to improve as weight is lost. This surgery, along with change in eating habits and exercise, has shown to be an effective method for losing and maintaining weight loss in the majority of patients. Gastric bypass has a dramatic, rapid effect on type II diabetes. In patients who have been diabetic for less than 10 years we often will have them off of their oral medications and/or insulin before they leave the hospital. Even with diabetes of greater than 10 years duration we will see dramatic reductions in the amounts of insulin that are needed for excellent diabetes control.

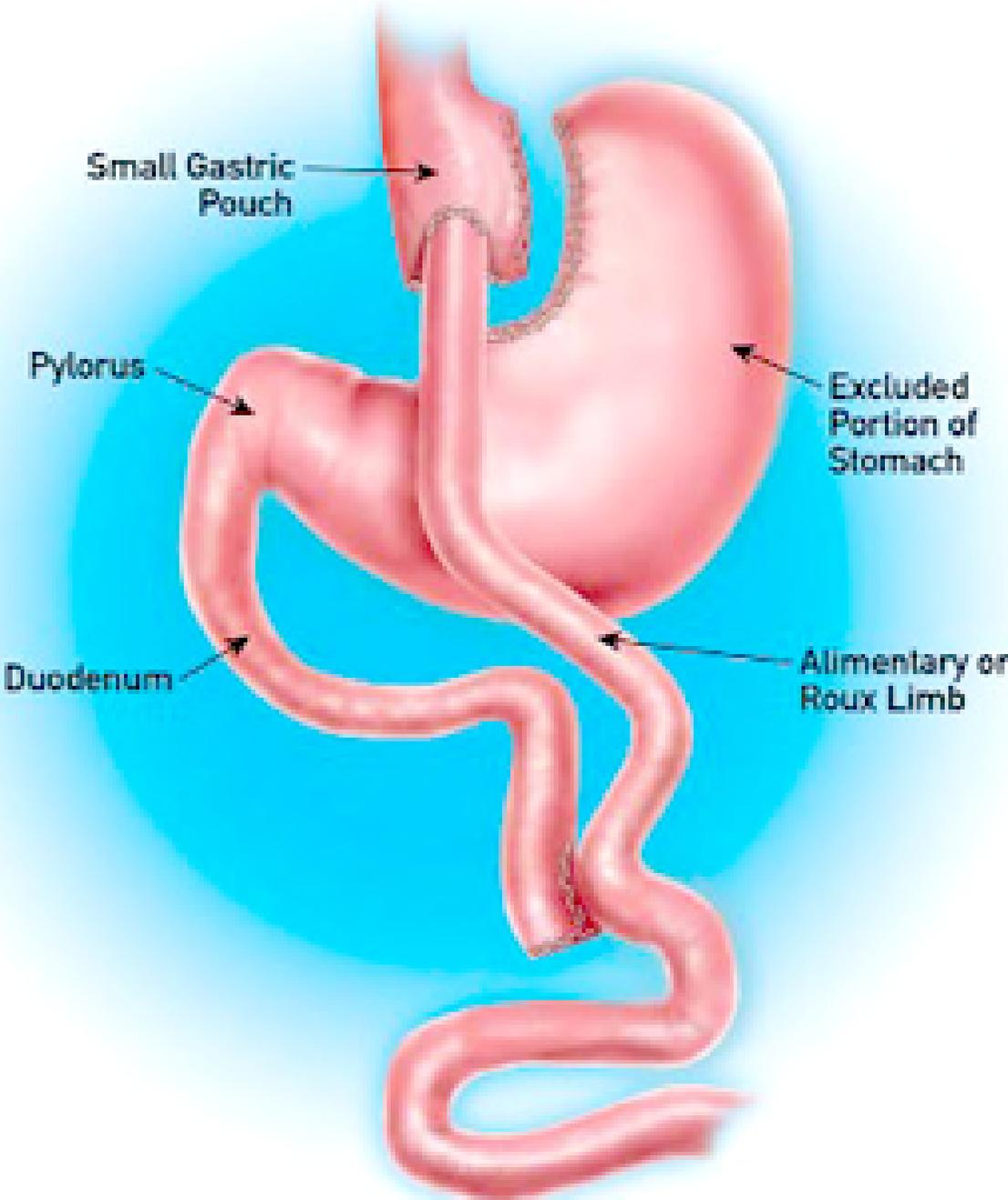
## What weight loss should I expect?

Results of the Kaiser Permanente Foundation Health Plan of Washington (formerly Group Health) Bariatric Surgery Program shows an average of approximately 75% of excess body weight loss and approximately 38% of total body weight loss at 18–24 months after gastric bypass and maintenance of 67% excess weight loss at 5– 10 years after surgery. Rapid weight loss usually occurs in the first six months after surgery, with more gradual loss continuing for another 6 to 12 months. Weight loss plateaus should be expected. Weight regain after 2 years can occur. This can range from no weight gain to regaining all of the lost weight (this is rare). If appropriate lifelong habits are developed in the first 2 years after surgery weight regain can be minimal. If old bad habits return, some weight gain will occur. Working closely with your Bariatric Nutritionist after surgery and your bariatric team beyond the first year after surgery will help continue progress toward your goals.

**Remember, in addition to the surgery, your food and exercise habits are essential lifelong behavior changes necessary for successful weight loss and maintenance.**

**This program gives you the tools to improve your health. We will encourage you to do so.**

# RNY Gastric Bypass



# Laparoscopic Sleeve Gastrectomy (LSG)

Laparoscopic sleeve gastrectomy was originally performed as a first-stage bariatric operation for high risk patient who were to undergo a second stage gastric bypass or duodenal switch. Over the past 5-6 years it has been shown to be an effective primary bariatric operation, but longer term results are not yet available.

Using surgical staplers the operation permanently removes a significant portion of the upper stomach creating a long, tubular stomach along the lesser curve of the stomach. This portion of the stomach has a lesser ability to stretch than the portion of the stomach removed. Unlike the gastric bypass there is no rearrangement of the small intestine and food flows in the same direction as it did prior to the operation.

## How does LSG help you lose weight?

The procedure has a number of effects that result in weight loss. With the removal of approximately 3/4 of the stomach, the sleeve gastrectomy causes restriction so patients are more quickly satisfied when they eat. Like gastric bypass, sleeve gastrectomy reduces the production of the intestinal hormone Ghrelin that decreases appetite.

## What are the results of LSG Surgery?

The small stomach created after sleeve gastrectomy empties more quickly and may be responsible for improvements in diabetes after the surgery. Initial results have shown that the effect on diabetes is significant with effects that are close to what is seen with gastric bypass and superior to what is seen with the Lap Band. With significant weight loss, improvement in other co-morbidities such as sleep apnea, hypertension and arthritis are seen as well. Reflux symptoms can worsen after LSG.

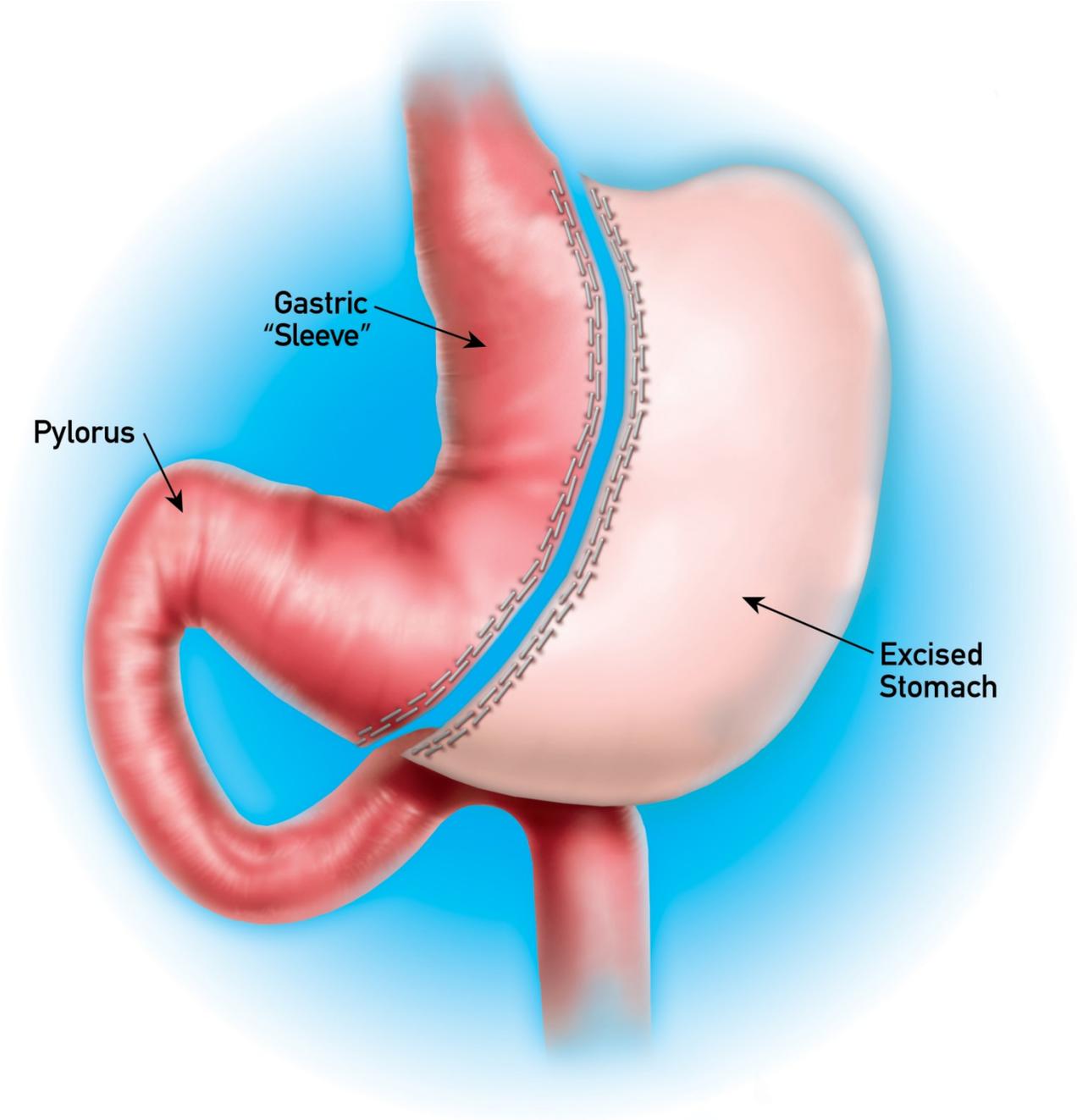
## What weight loss should I expect?

Results from the published medical literature show that approximate excess body weight loss at 3 years is 66-68% and at 6 years is 53%. The number of patient followed for 6 years is small and longer term results are not yet available at the time.

**As with gastric bypass: Remember, in addition to the surgery, your food and exercise habits are essential lifelong behavior changes necessary for successful weight loss and maintenance.**

**This program gives you the tools to improve your health. We will encourage you to do so.**

# Laparoscopic Sleeve Gastrectomy



# Duodenal Switch and Other Malabsorptive Procedures

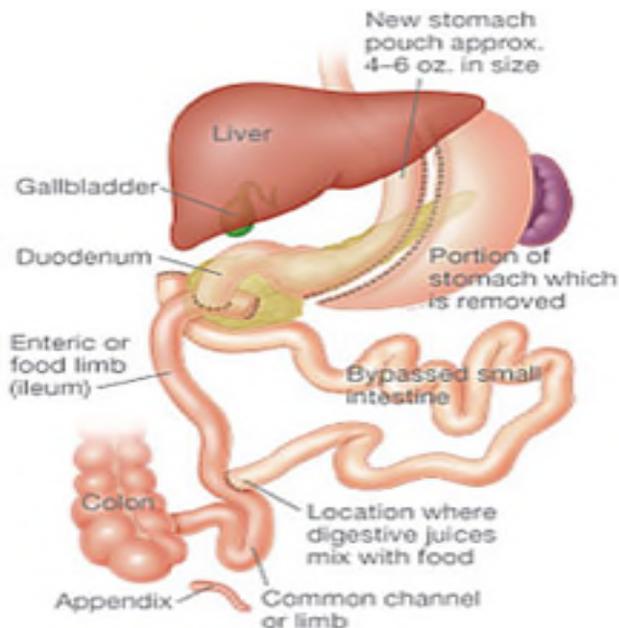
There are a group of bariatric operations that cause a malabsorption of proteins, fats and vitamins that contribute to a patients' weight loss. Because of the severe nutritional problems that can occur with these operations they are done less frequently in the United States. Currently less than 5% of all bariatric operations done in the US are of these types. The operations include duodenal switch, biliopancreatic diversion, and distal gastric bypass.

In the duodenal switch operation the stomach size is reduced as it is for the sleeve gastrectomy but to a lesser degree (remaining stomach is larger). In addition there is a change in the intestinal connections that causes malabsorption of the nutrients mentioned above.

With the gastric bypass the digestive enzymes produced by the lower stomach, pancreas, and the liver empty 40-60 inches from the stomach pouch-intestine connections. By making the connection close to the stomach, the majority of the small intestine remains functional. In the duodenal switch the segment of intestine where food and enzymes mix is 100 cm or 25 inches long, this results in decreased absorption of fats and protein that help in weight loss but can also result in malnutrition.

**With the increased risks associated with these operations, we do not recommend or perform them at Kaiser Permanente.**

## Duodenal Switch



# What are the risks of Bariatric Surgery?

All surgical procedures have some risk. Medical complications such as *diabetes*, *cardiac* or *pulmonary* disease, which affect morbidly obese persons, can increase the risk of surgery. *Pre-operative* evaluation is undertaken to reduce unnecessary risk. Being aware of the following risks allows you to make an informed decision about surgery.

- National statistics have shown a 0.5 to 4% death rate related to immediate post-operative complications following bariatric surgery. Mortality rates at Kaiser Permanente in Washington (formerly Group Health) has been less than 0.75%.

- **Blood clots or Deep Vein Thrombosis (DVT)**

DVT's can occur with any major surgery. Blood flow through the legs can be slowed and a clot may form. Pieces of the clot can move from the leg to the lungs and form an *embolism*. This can be life threatening.

Obesity and abdominal surgery increase the risk of this complication. Preventing DVT and embolism after surgery is an important part of your recovery. Getting out of bed and walking, taking *anticoagulation medications*, and using *leg compression devices* while in bed are some of the treatments used to avoid this complication. Your surgeon will make a plan for you to reduce your individual risk of blood clots.

- **Lung infections or pneumonia**

General *anesthesia*, pain following surgery, and obesity contribute to the risk of developing *pneumonia*. Use the *incentive spirometer* at least every 1 to 2 hours while awake. Getting out of bed and walking after surgery helps reduce the risk of this complication.

Use pain medication, as needed, to help stay comfortable enough to do these activities frequently. Continue these suggestions even after you are discharged from the hospital.

- **Heart problems**

Bariatric surgery can cause major stress to your heart. Confirming your heart's good health before surgery and close monitoring during hospitalization helps to minimize this complication.

- **Weakness in the abdominal wall or hernia**

With the *open procedure*, the incision extends from the bottom of the breastbone to the navel. Obesity and a long incision can lead to a weakening of the abdominal wall, which could allow a hernia to develop. This complication occurs in approximately 20 to 25% of bariatric patients who have an open procedure. This risk is reduced when the *laparoscopic procedure* is used.

- **Bleeding**

Blood loss can occur at the time of, or following surgery. Blood replacement or *transfusion* is not usually required.

- **Gallstones**

Significant weight loss, as occurs after Roux-en-Y Gastric Bypass and Laparoscopic Sleeve Gastrectomy surgery, can increase the risk of *gallstone* formation.

# Complications that can occur strictly after Roux-en-Y Gastric Bypass

- **A leak at the site of the stomach-intestine connection**  
This usually occurs within the first days following surgery and requires further surgery to correct. This occurs in approximately 1 to 2% of all Roux-en-Y Gastric Bypass surgeries.
- **Stricture**  
This complication occurs when the connection between the new small upper pouch of the stomach and the *jejunum* becomes narrowed and food cannot pass effectively. An outpatient procedure called a balloon dilatation can be performed *endoscopically* to correct this problem. Strictures will typically occur about 4-6 weeks after surgery. See illustration of the anatomy following Roux-en-Y Gastric Bypass surgery.
- **Marginal ulcers**  
This is an *ulcer* that forms in the area of the gastric pouch and *jejunum* connection. The risk of this complication is low. It can be caused by use of anti-inflammatory medications such as ibuprofen (use of these medicines after surgery needs be avoided). Smoking will also result in the development of ulcers.
- **Stomach staple line breakdown or fistula**  
Continuously eating or drinking too much at a time can cause this complication and will create a new connection between the stomach pouch and the remainder of the stomach. This is a rare complication.
- **Dumping syndrome**  
Sweating, rapid heart rate, and a feeling of weakness, nausea, vomiting and/or diarrhea can occur if foods high in simple sugars or fat empty into the *jejunum* undiluted. This is very unpleasant and reinforces the negative results of inappropriate eating and drinking.

## Other complications that can occur long term with bariatric procedures

- **Nausea / Vomiting**  
Not chewing adequately, eating too much, or eating too quickly leads to this problem. Also, eating/drinking inappropriate foods/drinks.
- **Constipation**  
Reduced food intake results in less waste products and firmer, smaller stools, which can be more difficult to pass. Eating *fiber* foods, drinking water, taking probiotics and activity help to avoid this problem. Any sugar-free fiber supplements, such as Metamucil may be use (once you are drinking at least 64 oz. of fluids per day).
- **Hair loss**  
Consuming fewer calories in the first few months after surgery can result in some hair loss. This is not usually a permanent condition and the hair grows back as calorie intake increase. Avoid chemical treatments of the hair during the first year following surgery. The use of Biotin, a B vitamin, can be useful.
- **Intestinal obstruction**  
A blockage can form with the new anatomy following this surgery. Frequent vomiting unexplained by over eating, can be a symptom of this problem.

### Informed Consent

The surgeon will review the above risks with you at your consult appointment. Ask questions about anything you do not understand. You will be asked to sign an ***informed consent*** stating that you clearly understand your treatment. Be sure to read the consent form before you sign it.

### Receiving Anesthesia

- Problems from anesthesia are rare. Your risks will be discussed with you during your interview with the anesthesia provider on the day of your surgery. Be sure you ask any questions and resolve any concerns you might have at that time.
- Your anesthesia provider watches you the entire time that you are in the operating room (OR). Your blood pressure, heart rate and rhythm, and oxygen saturation are carefully observed and monitored throughout the surgery.

# Before your surgery (Preparing for surgery)

## Arrange for help after surgery

- Your hospital stay is expected to be 1-2 nights in the hospital. 90% of patients will go home on the afternoon or evening of day 2 after surgery. For instance, if your surgery is Monday, you would expect to go home on Wednesday afternoon.
- Open Roux-en-Y (RNY), your hospital stay is expected to be 3-4 nights in the hospital.
- On the day of discharge, you will need someone to drive you home.
- During the first 1 to 2 weeks you may need assistance with activities such as:
  - Transportation
  - Grocery shopping
  - Meal preparation
  - Care of your home
  - Care of your children and/or pets
- If you do not have someone who can provide this assistance, talk with the social worker from your primary care clinic. They may be able to recommend resources.

## Time-Off Work for Recovery

It is recommended that you take 2-4 weeks off work for recovery, regardless of which procedure you are having. This allows for time to recovery from your surgery physically, adjust to new eating patterns, begin exercising and basically spend some time taking care of yourself. This is going to be a time of adjustment and it's in your best interest to take the time to heal and recover without the stress of work to worry about.

We are happy to complete FMLA forms, other time off request forms or write letters for time off and return to work requests; however it saves time and energy if we know what you are asking for in advance. Please complete the FMLA Prep-Sheet and release of information, found in the back pocket of your notebook, and fax these along with your FMLA forms to **425-502-3570**. If there are questions about time requests, please call or email the bariatric clinic, **425-502-3454**.

## Get ready for eating differently

- Remove inappropriate food types from your home and go shopping prior to your surgery, for foods to be used after surgery.
- Practice new eating behaviors before your surgery. Eating slowly and chewing your food well, reducing portion sizes, and stopping when you first feel full are the only ways you will be able to eat without causing problems following surgery.
- Keep a record of the foods/fluids that you eat/drink each day. This will be expected following surgery, start this habit before surgery. See section 10 for food journaling recommendations.
- Get a set of measuring cups and spoons, a food or postal scale, smaller plates and utensils to assist in tracking food portions.
- Your diet will begin as clear liquids in the hospital, full liquids once you are home, soft/puree diet at about 2-3 weeks post op. You will need a blender or food processor to prepare the proper consistency.

### \*\*\*\* Important \*\*\*\*

Many patients with morbid obesity may have one or more eating disorders which, if not addressed appropriately can complicate their post-operative safety and success. It is important to think about how you use food as a way of dealing with stress, anxiety, depression, boredom, or in any way as a coping mechanism. It is then very important that you identify and use other ways of coping, such as exercise or support groups.

During the pre-op psych-social assessment, eating disorders or eating behaviors may be revealed and may require further intervention. It will be a requirement to follow through with any recommendations made.

## Loss weight prior to surgery

- Weight loss before surgery shrinks the liver which makes the surgery safer and lowers the chance of needing to convert to an open operation. It also gets you prepared to be an active participant in your weight loss success.

Please see the weight loss requirement (see section 2).

## Prepare Advance Directives

- If you are unable to make decisions, your doctor will talk with your family members or significant others or refer to written instructions you have prepared, to try to find out what treatment you would want or would be in your best interest.
- It is recommended that you complete your advance directives prior to any surgical procedure. A copy of the Consumer Guide to Advance Directives has been included with this booklet.
- Update any Advance Directives you may already have prepared.
- If you are unsure if you already have your Advance Directive documents on file, contact the Kaiser Permanente Registry at 206-326-3290.
- Your primary care clinic Social Worker can answer any questions about preparing Advance Directives.
- Completed advance directives can be taken to the business office of your primary care clinic to be scanned into your electronic medical record.

## NSAID Use

- The use of aspirin, ibuprofen, naproxen, or other Non-Steroidal Anti-Inflammatory Drugs (NSAID's) will greatly increase your risk of stomach ulcers after bariatric surgery (much more so with the RNY)
- If you currently take any of these products routinely, please talk with your primary doctor or prescribing doctor (if they are recommended by a doctor), about an alternative that you can take after your surgery.

# Birth Control

## Prior to surgery

- If you are a woman of child bearing years, you will need to be on some form of reliable birth control before and after surgery.
- Birth control pills must be stopped at least 30 days prior to surgery and are not a reliable source of birth control following surgery, do to hormonal changes. They also increase the risk of blood clot during the operative and immediate post-operative period, which can be very serious. We want to do everything possible to avoid blood clots.
- If you are interested in the placement of an IUD, please see your OB/GYN to discuss prior to your surgery.

## After surgery

- Pregnancy is not recommended for at least 18-24 months following bariatric surgery.
- If you were infertile or had trouble conceiving prior to surgery, this may change quickly following surgery, with even minimal weight loss.

# Smoking

## If you smoke, stop

- There is a nearly 100% ulcer-formation rate in those smoking or with tobacco exposure after surgery. These ulcers can result in perforation, stricture, bleeding or, all of the above.
- Surgery will not be performed on anyone who currently smokes. You must be completely smoke free for at least 3 months prior to surgery.
- Quit for Life® is a Kaiser program to help anyone trying to stop smoking. If this applies to you, please ask for more information on how to join the program.
- If you resume smoking after surgery, the chances of developing ulcers, bleeding and/or intestinal perforation increases dramatically.

# Sleep Apnea

## What is obstructive sleep apnea?

- Caused by upper airway collapse during sleep
- While awake: muscles hold upper airway open
- During sleep, airway muscles relax, resulting in airway narrowing
  - Mild narrowing → snoring
  - Moderate narrowing → reduced airflow (“hypopnea”)
  - Severe collapse → absent airflow (“apnea”)

## How does obstructive sleep apnea affect your health?

- Consequences of sleep fragmentation
  - Unrefreshed sleep
  - excessive daytime sleepiness lead to motor vehicle accidents
- Cardiovascular consequences of OSAS
  - increased risk of hypertension
  - Probable increased risk of heart disease and stroke
- Other consequences of OSAS
  - Night time reflux, morning headaches, gout attacks, frequent urination, leg swelling, impotence

## Why it is important to treat obstructive sleep apnea?

1. Treatment of obstructive sleep apnea can improve overnight sleep quality, daytime alertness and overall functional status. It may improve blood pressure, cholesterol and blood sugar measurements and it may reduce the risk of heart problems.
2. Automatically adjusting positive airway pressure machines (APAP) stent open your airway to prevent the collapse allowing you to breathe normally.
3. Since anesthesia and pain medications sedate you that relaxes your airway more so; this in turn can worsen your sleep apnea. So it is very important to bring your APAP/CPAP or BiPAP to the hospital to use post-operatively.

**Kaiser Permanente Outpatient Sleep Apnea Services contact number is 1-800-348-6382**

# kp.org/wa

## kp.org/wa allows you to:

- Refill Prescriptions
- Make Appointments and Cancel Appointments
- View Upcoming Appointments
- Review Lab / Radiology Results
- Securely email your doctor, ARNP/PA, dietitian and nurse
  - You will not be able to initiate an email *until* you have been seen in the clinic by the bariatric surgeon. Prior to that time, you can 'reply' to RN's email to you. After your pre-op appointment, you can email to the 'office of' Dr. Landers or Dr. Gupta.
- View your Medical Records
- Check your Benefits
- Create your Health Profile

## If you don't already have an account, here's how to get started:

- Go to kp.org/wa and click "Register now"
- Enter your Member ID # (the number on your membership card), your last name, and your birth date
- Click the submit button
- You will get a "Thank You" screen where you will get a temporary password.

In a few days, you'll receive a verification code in the mail. Once you receive it, just log on and enter code, then you're ready to access the convenience of kp.org/wa.

The Secure Patient Messaging is a fabulous way to communicate without phone tag. You will receive a response within 1 working day. Note: This e-mail is only checked during business hours (Mon-Fri).

For more urgent questions or concerns, please call our Bariatric Clinic (425-502-3454) or Consulting Nurse (1-800-297-6877) if after-hours.

## Hotels

If you live a distance away and want to stay in an area hotel, there are several to choose from that are very close, two that offer discounts to patients.

### Discounts

#### **Hotel 116 (Recommended)**

Less than a block from Kaiser Permanente and Overlake  
Offers Shuttle  
625 116<sup>th</sup> Ave NE  
Bellevue  
425-455-9444

#### **Red Lion**

About 4 blocks from Kaiser Permanente and Overlake  
Offers a shuttle to and from Overlake  
11311 Main Street  
Bellevue  
425-455-5240

### Other Hotels

#### **Courtyard**

11010 NE 8<sup>th</sup> St  
Bellevue  
425-454-5888

#### **Silver Cloud**

10621 NE 12<sup>th</sup> St  
Bellevue  
425-637-7000

#### **Bellevue Lodge**

11011 NE 8<sup>th</sup> St  
Bellevue  
866-539-0036



# **General Surgery - at Overlake Hospital - Instructions**

*The Medical Assistant will review this page with you on the day of your pre-op appointment.*

- An Overlake Hospital Nurse will contact you, about one week prior to your surgery, to do a pre-registration.
- Overlake Admitting/Check-In: will contact you **the day before** your surgery to tell you your check in time.

One of the Bariatric RN's will call or email with a surgery date, a day or two after your consult. She will let you know when to do the things below.

\_\_\_\_\_ Pre-Surgery Physical (schedule with your PCP)  
\_\_\_\_\_ Labs  
\_\_\_\_\_ EKG (if ordered by surgeon)  
\_\_\_\_\_ Other

*If your primary care provider is not located at a Kaiser Permanente Medical Center, we will provide you with a list of what you need, for you to take to your PCP at the time of you pre-surgery physical. You will also need our fax number.*

## **Please bring a current list of medications to all appointments**

*handout in your notebook*

- **Avoid Aspirin and Ibuprofen products for one week prior to surgery (Naproxen, Motrin, Aleve, Advil, Excedrin, Midol).** Tylenol based products (Acetaminophen) are fine to take.
- Your surgeon will give you instructions for stopping and/or taking certain meds before surgery.
- **Follow the prescribed Liquid Diet the DAY BEFORE surgery**  
*See next page*
- Do not eat or drink anything after midnight (including mints & gum) unless otherwise instructed.
- You need someone to drive you home, you will not be allowed to drive yourself home or use public transportation.
- Have someone stay with you for at least the first 24 hours **after you return home.**

# DAY BEFORE SURGERY DIET

Follow the diet prescribed by your surgeon **the day before** surgery

You can drink as many of the listed liquids you need to stay full throughout the day.



**No solid food; nothing blended**  
**Do not eat or drink after midnight the night before your surgery.**

Full Liquid Diet
<p><b>Allowed:</b> Protein shakes Protein water Soup (liquid only) Broth/Bouillon Nonfat plain yogurt Herbal tea Clear juices: apple, cranberry, white grape Non-dairy popsicles Sugar-free gelatin Water</p> <p><b>Not Allowed:</b> Orange juice Milk Ice cream Milk-based soups</p>

# Preparing for your Surgery

It is very important that you follow these instructions. Ask – if you have any questions!!!

## 30 days Prior to Surgery

Pre-Op history and physical **within** 30 days of your surgery date

Confirmation email/letter will provide specific instructions (if your surgery is within 30 days of your pre-op consults, you may not need another one – follow the instructions provided)

- There are blood tests that need to be done within 30 days of surgery
  - These will be ordered for you and you will be instructed when to do them
- You may also need an updated EKG. If this applies to you, we will let you know
- STOP hormones (including birth control pills) 30 days prior to your surgery

## 2 Weeks Prior to Surgery

- Stop taking all herbal supplements
  - We know that some herbal supplements can increase bleeding risk or interfere with pain medications / anesthesia, but many have not been tested.

## 1 – 2 Weeks Prior to Surgery

- You will receive a call from Overlake Hospital for a pre-registration
- If you do not receive this call within one week of surgery, you may call them at 425-688-5378

## 7 Days Prior to Surgery

- Stop taking Aspirin and other anti-inflammatory medications (NSAID's)
  - i.e. Ibuprofen, Advil, Motrin, Naproxen, Aleve
- Tylenol is fine to take

## 1 Day Prior to Surgery

- Start clear/full liquid diet (liquids only all day the day before surgery)
  - See previous page for a list of clear / full liquid diet suggestions
- Nothing to eat or drink after midnight or the morning of surgery
- Follow medication instructions that you have been given by your surgeon
- You will receive a call from Overlake Hospital with your check-in time
  - Or you can call them any time after 9 am 425-688-5378
  - If your surgery is on Monday you will receive this call on Friday (this also applies if your surgery is Tuesday and Monday is a holiday).

# The Day of Surgery

- **DO NOT** eat or drink anything – other than medications you have been instructed to take, with just a small sip of water.
- Shower or bath the night before or the morning of surgery
  - Bacteria on your skin can cause infection. Thoroughly wash between skin folds
  - Do not apply lotion, creams, powders or oils
- Do not wear make-up, face creams or hair products
- Remove all jewelry (including wedding rings and body piercings)
- Wear loose fitting clothes
- Take medications as directed by your surgeon
  - Make sure that you know which medications to take and not to take
  - **Taking a medication that you shouldn't have could get your surgery canceled**
- Do not take vitamins, supplements or non-prescription medications
- Do not bring medications to the hospital
- Do bring inhalers, eye drops and nasal sprays, if you use these
- Bring your APAP, CPAP or BiPAP machine, if you use one
  - **This is a must!!**
- If you have a pacemaker, bring the ID card
- Bring your Kaiser medical card & picture ID
- Do not bring large sums of money or valuables
- Bring your advance directives, if they are not in your electronic medical record
- Arrive at the given time and place (Overlake will provide this information)
- Report to **Overlake Hospital** at the check-in time that you have been given.
  - Your surgery date may or may not show up on [kp.org/wa](http://kp.org/wa) as an appointment.  
**Do not go by the time that you will see in [kp.org/wa](http://kp.org/wa) appointments, for the day of surgery.** The correct check-in time is the time that you are given by Overlake Hospital.
  - It is very important that you show up by the given time.
- Overlake Hospital will tell you where to park and where to report on the morning of surgery. You may request a parking pass at the time of check-in at Overlake.
- You must have a driver arranged to take you home on discharge
  - You will not be released on your own or to public transportation

# Arriving at Overlake Hospital

You have used the information in this guide to prepare for your surgery. The following information is focused on the next phase of your care; your actual operation and the first days of your recovery. Learning what to expect from your health care team and what you can do as you work with them can give you:

- Confidence
- A feeling of control as you recover
- Will help you achieve a successful outcome

The day of surgery is a busy one, filled with many new places and activities. The following information will help you know what to do and what to expect on this important day.

- Overlake Hospital is just north of the Bellevue Kaiser facility.
- Traffic can be difficult at any time of day, coming from any direction. Please allow enough travel time.

## Overlake Hospital Admission

- Answer questions and complete the hospital admission paperwork.
- Be directed to the pre-operative area.

## In the Peri-Operative Area you will

- Confirm information from your *preoperative* paperwork
- Have your *vital signs* taken and recorded
- Have your weight recorded
- Have your *oxygen saturation* measured by a *pulse oximeter*
- Have an *Intravenous line* (IV) started
- Receive an *anticoagulation* medication
- Given an opportunity to ask any other questions with a nurse or your surgeon
- Be encouraged to try to relax and feel comfortable
- Meet with the Anesthesiologist

## Just before you go to the operating room you will

- Empty your bladder
- Take off items such as underwear, any prosthetics, hairpin, and any metal jewelry including rings. Hands can swell during surgery making it necessary to cut rings off. Jewelry should be given to family or friends for safekeeping
- Have visitors wait in the Surgical Waiting Area. The surgeon will speak with your family in this area, after the procedure, while you are recovering in the Post Anesthesia Care Unit (PACU)
- Go by stretcher to an area outside the Operating Room, known as the Holding Area

## Immediately before surgery in the Holding Area you will

- Confirm your consent for surgery
- May receive *antibiotic* medication through your IV

## During surgery in the Operating Room (OR) you will

- Be placed on the operating bed and secured with safety straps similar to seat belts
- Have a *SCD's* placed on your legs. These inflate and deflate simulating the act of walking and stimulate the circulation of the feet and legs to help prevent blood clots from forming.
- Never be left alone. The surgeon, anesthesia provider (Anesthesiologist or CRNA), and other surgical assistants will be with you. They will be wearing surgical clothes, including hats and masks and you may not be able to recognize them immediately

## After surgery in the Post Anesthesia Care Unit (PACU)

- A nurse will take your *vital signs* frequently
- You may:
  - Hear a lot of noise and activity
  - Have an altered feeling of the passage of time
  - Feel as if it takes a lot of energy for you to talk
  - Not have any visitors
- You may have:
  - A *foley catheter* in your bladder to drain urine. If you do have a foley catheter, it will be removed the day after your surgery. You will not need to urinate while the catheter is in place.
  - A small plastic tube (*nasal cannula*) with oxygen flowing into your nose. This will be used through the first night after surgery. A *pulse oximeter* will be attached to your finger or toe to measure the amount of oxygen circulating in your blood.
  - A dressing(s) covering your incision(s), which have been closed by staples.
  - Receive pain medicine. See Pain Control for more information about pain relief options.
  - Be transferred to your hospital room after your anesthesia has begun to wear off and your *vital signs* are stable.

## In your hospital room after your surgery you will

- You may be given ice chips and possibly sips of water on the day of surgery
- The day following your surgery you will be started on clear liquids, as instructed by your surgeon
- Have the head of your bed raised 30-45 degrees at all times, to increase the amount of oxygen in your blood and to prevent *reflux*
- Have your *vital signs* taken and recorded frequently
- Be weighed daily
- Have blood tests, as needed
- Continue to receive oxygen, as needed
- Use an *incentive spirometer* to take deep breaths to help reduce your risk of pneumonia, as directed by your nurse
- Receive pain medication, as needed to keep you comfortable. Refer to the Pain section, for more information about pain control
- Receive medications by *IV* to prevent infection, nausea, and excess stomach acid
- Continue to use the *SCD's* to help prevent blood clots from forming. The device is worn continuously while in bed, during your hospital stay. Do not remove them yourself. Notify the nursing staff, who will assist you when you get out of bed
- Be encouraged to get up and walk, as able on the day of surgery and at least 3-6 times each day thereafter
- You will start to take small amounts of water, and remain on clear liquids while in the hospital.
- Your *IV* will be disconnected from the tubing and capped with a *saline lock*, as you tolerate your liquid diet. Refer to the nutrition section, for more information on diet and recovery

# Pain

## Some level of pain is to be expected

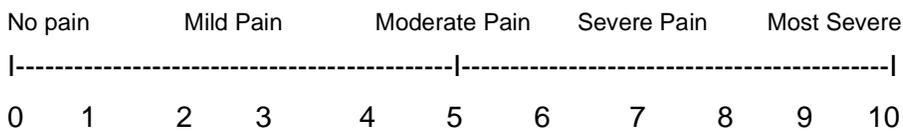
- *Postoperative* pain is to be expected following a surgical procedure
- With your help, your pain is managed to keep you comfortable
- If your pain is not relieved, it is important to tell the nurse or doctor
- Knowing what to expect and what to do about it, helps you prepare for the pain you experience
- How you respond to pain is unique to you. You are the only one who really knows how it feels. Your emotions also determine your feeling of pain
- The pain you experience will diminish as you continue to heal

## Pain control assists your recovery by

- Providing comfort
- Improves your ability to be active which helps to prevent complications such as *blood clots* and *pneumonia*

You will play an important role in achieving good pain control. The following suggestions will assist your health care team as they care for you and your pain

- Request pain medicine when you begin to hurt
- Rate or measure your pain using the scale below. This helps to describe what you feel when talking about your pain with your nurse or doctor



- Ask what to expect after taking pain medication
- Tell your nurse or doctor if the pain does not improve after taking pain medication
- Talk with your nurse or doctor about concerns you may have about taking pain medications

# Types of Pain Control

## Patient Controlled Analgesia (PCA):

- You control your pain medication through your *Intravenous Line (IV)*. A pump connected to your IV gives you a prescribed dose of pain medication. You will be taught how to use the pump by the nursing staff

## Intravenous (IV) Pain Medication:

- The nurse gives a prescribed dose of pain medication through your *IV* line

## Pain Liquids or Pills:

- The nurse gives a prescribed dose of pain medication in liquid or pill form. It takes about 30-40 minutes for the oral medication to start to work. As with all other analgesics, planning when to take your medication allows you to achieve maximum comfort. Pills should be no larger than the size of an aspirin or cut in half, if necessary. You will be sent home with narcotic pain medication.

## Pain Management:

- Though pain from laparoscopic bariatric surgery is typically less than one might expect, it is important to remember that everyone experiences pain differently. Please let your surgical team or nurse know if you are experiencing pain, despite pain medication. This applies to when you are home after surgery as well. Some patients use no pain medication at all once they are home; others need to request a refill of their pain medication. Remember – you are an individual with individual needs. Once home, call the bariatric clinic with any questions.

# Blood Clots

- After any major surgery there is a chance of developing a *blood clot*
- A blood clot can happen when the blood flow through the legs is slowed as happens after surgery, when you remain in bed for prolonged periods, or when you sit for long trips in cars or airplanes
- Most blood clot forms in the leg, however they may occur in any other part of the body. A blood clot that develops in, or moves to the lungs is called an *embolism*. This can be life threatening

## Blood Clot Prevention

The methods used to prevent blood clots for Bariatric Surgery are:

- Fragmin, an *anticoagulation medication*, given by injection when first admitted to the hospital and once a day until discharge from the hospital
- *SCD device* is placed on both legs. These inflate and deflate, stimulating the walking motion to encourage circulation of the feet and legs to help prevent a clot from forming. SCD's are worn continuously while you are in bed. Do not remove them yourself. Notify the nursing staff if you need to get out of bed
- *Ambulation*, getting out of bed and walking at least three times a day, encourages circulation and prevents blood from pooling in the legs

# Leaving the Hospital

- Patients will leave the hospital typically on the 2nd day after your surgery. Though you may go home on the first day and on a rare occasion a longer stay may be necessary
- You will need someone to drive you home from the hospital

## Before you leave the hospital

- **The Surgeon or PA will:**
  - Make a plan for your medical needs, providing information about your incision, diet limitations, medications, activity restrictions, follow-up appointments and what to watch for. You will receive written discharge instructions in regards to medications and follow up
- **The Nurse will:**
  - Review the instructions that your surgeon has given
  - You are given a written copy of all these instructions
- **The Pharmacist will:**
  - Review your medications and make sure there are no drug interactions
- **You will:**
  - Make sure your questions have been answered
  - Know what your discharge instructions are
  - Know any medication changes that have been made
  - Know when your post op appointment is scheduled for
  - Have your driver available at the time of discharge



# BARIATRIC NUTRITION & LIFESTYLE PLAN

Obesity is a chronic disease that requires ongoing effort and permanent lifestyle changes. Bariatric surgery is not a cure nor is it to be considered a “one and done” approach to treating obesity. Weight loss surgery is simply a tool to help you achieve a healthier weight and lifestyle.

In order to have a successful long-term outcome, it is necessary to make a number of **permanent** lifestyle changes. You will need to change your eating habits, behaviors, mindset, stress management strategies, and physical activity. **While the nutrition plan is one of the most important parts of this journey but it is not the only component to success.** Establishing healthy self-care habits is the key.

“A journey of a thousand miles begins with a single step.” ~Lao Tzu

## Start Now!

- Weight loss and optimal health is more than diet and exercise; it's an accumulation of habits that are integrated into your daily life.
- The bariatric team expects you to start making small lifestyle changes now in preparation for the surgery. Waiting for the pre op consults with the surgeon and dietitian to get started sends the message you are not committed to the process.
- The surgery only changes the size of your stomach; **you have to do the rest** to get the results you want long term.
- As you work through your Bariatric check list, begin to establish the healthy habits that will make you successful.
- The sooner you start, the more prepared you will be for the surgery, recovery, and for the rest of your life.
- Certain things will change once you have surgery; such as food intake, separating fluids from meals, but the fundamentals are the same: healthy habits create a healthy body and life.

# Building a Healthy Foundation

## Fuel your body

- Kick start your metabolism by eating breakfast within 1-2 hours after waking up.
- Establish regular meal times throughout the day; never skipping meals or going more than 4 - 5 waking hours without eating.
- Eating breakfast primes your metabolism to maintain stable blood sugar levels after subsequent meals.
- Studies indicate prolonged fasting might lead to a bigger than normal increase in ghrelin, known as “hunger hormones.” This encourages you to overeat at your next meal and leading to peaks and crashes in your glucose and energy.
- Choose protein and complex carbohydrates to get your day going. For example: cottage cheese or yogurt with berries, a protein shake and banana, veggie omelet.



## Plan your meals

- We live in a “high” society. Restaurants and grocery stores are packed with high fat, high carb, high sugar and high salt foods.
- When you don’t plan and prep your meals it’s easy to choose the fast, higher fats/sugar/salt/carb foods when you need to eat.
- Create a list of different meals you enjoy for each meal. (i.e. breakfast foods: protein and fruit smoothie, cottage cheese and fruit, or egg and veggie scramble).
- Having a few “go to” food items makes shopping and planning much easier to eat healthy and less likely to eat out.

## Protein

- Protein is the cornerstone of your diet after surgery but not all proteins are created equal.
- High fat meats, such as pork sausage, salami, prime rib, bacon, and cheese can be substituted for leaner, healthier options: fish, chicken, lean pork, lean red meat, low-fat dairy products, eggs, and soy products.
- Plant-based proteins (i.e. nuts, seeds, legumes, grains) do not contain all the essential amino acids that are found in animal based proteins. These proteins also tend to be high fat (typically healthy for your heart, but not your waistline), high carbohydrate and high calorie.
- Start to substitute leaner proteins for the higher fat proteins. For example: substitute chicken for beef when making tacos, eat lean ham in place of pork sausage.
- Start to buy different protein shakes and powders to find ones you like. Drink them for breakfast or as a quick snack.

## Fruits & vegetables - 5+ a day

- Vegetables and fruits are packed full of nutrients, are low calorie and very filling.
- Aim for 5+ servings a day (ratio of 3 vegetables & 2 fruits).
- Start with 1 fruit and 1 veggie a day.
- Gradually increase until consistently eating 5+ servings per day.



### Serving sizes:

- One cup of fruit or vegetable - **non-starchy veggies encouraged**
- One piece of fruit (5 - 6 oz.)
- 3 cups of leafy raw vegetables: cabbage, spinach, lettuce
- ½ cup of legumes (black beans, garbanzo beans, lentils, etc.)\*  
Note: Legumes and beans are nutrient dense and higher calories per cup than other vegetables. (Average cup: 200 - 300 calories and 10 - 20 grams of protein).
- Not recommended: dried fruit or juice
- Vegetables average 50 calories/cup
- Fruits average 100 calories/cup or piece

### Getting Started:

- Buy fresh, frozen and canned. Keep a variety on hand.
- Fresh and frozen vegetables and fruits are more nutritious than canned but canned is still better than eating fast food. Keep a few cans of veggies you like in your pantry.
- Use fresh garlic, herbs, spices and flavored vinegars to season your veggies. (i.e. fresh ginger, curry, salt-free seasoning blends or balsamic vinegar)

## Fluids

- Aim for 64 oz. of non-caloric fluids a day; water is preferred.
- Post-surgery, you will be drinking sugar-free, non-carbonated, herbal beverages so start exploring options now.
- Buy an infused water bottle. Try different combinations such as strawberries and kiwi.
- There are many options available; here are a few suggestions:
  - Try flavoring water with slice of cucumber or citrus; lemon, lime or orange.
  - Mio Liquid Water Enhancer (sucralose)
  - Sweet Drops Liquid Stevia
  - Water Drops (stevia)
  - Propel Zero or Vitamin Water Zero
  - Crystal Light Pure



## Artificial sweeteners

- **NO NutraSweet/aspartame or Sweet & Low/saccharine products.**
- NutraSweet, also known as Equal or “the blue packet.” Aspartame is in A LOT of products. For example: Crystal Light, diet soft drinks, sugar free Jell-O, puddings, popsicles, etc. Sweet & Low are the “pink packets.”
- If you are consuming products that contain aspartame, start to wean off of them and incorporating new alternatives.
- Try using Stevia, Truvia and Monk fruit products.
- Try different brands and types of sweeteners to find one that you like and can tolerate.
- Splenda (sucralose) is okay to use and is in many of the protein shakes.
- Just like any other healthy habits, **moderation is key.**



## Vitamins/Supplements

- Start taking the vitamins and supplements daily to get into the habit.
- You can take tablet form of the supplement prior to surgery. For the first 2 months after surgery, liquid or chewable supplements are recommended.
- These vitamins & supplements are specific to the bariatric surgery and you will be taking them for the rest of your life.
- **Do NOT take the multivitamin with iron and calcium at the same time; separate by 2 hours.** Iron inhibits the absorption of calcium.
- **DO NOT TAKE ANY supplements in gummy form.** Gummies do not have all the vitamins and minerals you need, are not well absorbed & can get stuck.
- See Tab 7 for more information and a list of recommended vitamins and supplement brands.

Vitamins/Minerals	Gastric Bypass	Sleeve Gastrectomy
Multivitamin with iron: (chewable or liquid)	1 svg/day	1 svg/day
Calcium Citrate with Vitamin D3 (chewable or liquid)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)
Probiotic	1 svg daily	1 svg daily
Vitamin B12	1 svg/day (500 micrograms)	NA

## Food Records

- Start keeping food journal/records to increase your awareness of your food habits and track the health habits necessary for success.
- Food records increase your awareness around your eating habits. While it can be uncomfortable writing down the “bad foods” you’ve eaten (i.e. chips, cookies, bread, ice cream), it will give insight into your deep-seated eating habits so you can make plans in how to change them. Food records are feedback, not failure.
- You can buy a special food diary, a simple notebook, an online or phone app; choose the type that works best for you.
- Food records are a tool for you to learn what foods work best in your body and with your lifestyle.
- Keeping food records will also help the dietitian and bariatric team assess your diet/nutrition and make recommendations if you have any challenges.

The Essentials	Advanced
time of day	hunger and fullness levels: before & after meal
food item(s) and amount (oz., Tbsp., cup)	feelings/mood (happy, bored, depressed)
protein grams	who you dine with (alone, coworker, family)
calories	location of meal (work desk, in front of TV, car)
fluids – type & ounces	<b>post op:</b> challenges, nausea, vomiting, or pain
list of vitamins & supplements taken	food intolerances
exercise – type and minutes	foods well tolerated & filling

### Websites/Phone Apps:

[www.baritastic.com](http://www.baritastic.com)  
[www.supertracker.usda.gov](http://www.supertracker.usda.gov)  
[www.CalorieKing.com](http://www.CalorieKing.com)  
[www.MyFitnessPal.com](http://www.MyFitnessPal.com)  
[www.FitDay.com](http://www.FitDay.com)  
[www.Loselt.com](http://www.Loselt.com)

## Portions are important

- Start to become aware of how much you eat by weighing and measuring your protein/meals.
- Weigh and measure your food before eating your meal.
- Start learning portions sizes now to be prepared after surgery.
- A deck of cards is approximately 3 ounce of chicken or meat.
- Put all extra food away before eating.
- Use small dishes, glasses and child-size utensils. This will make your portions look bigger and slow down your eating.

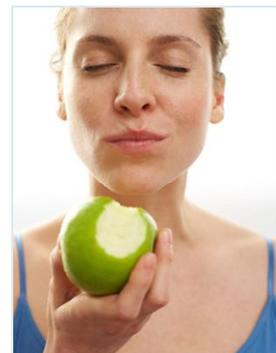


## Eat mindfully

- The practice of mindful eating helps raise your awareness of your thoughts, actions, feelings, and motivations of why and what you eat.
- A habit is a routine of behavior that is repeated regularly and tends to occur subconsciously.
- Many of the habits that drive food choices and overeating are these unconscious behaviors that have been repeated for years; they are automatic and you may act on them without even realizing it.
- Eating mindfully raises your awareness so you can make changes.
- This practice of eating slowly and mindfully is very important before and after you have surgery.

## Mindful eating includes:

- Recognizing your body's hunger and fullness signals.
- Being aware of your emotional cues.
- Identifying your non-hunger triggers for eating.
- Learning to meet your other needs in healthy, effective ways other than eating.
- Fueling your body with foods that energizes you, nourishes your body, and provides you satiety and satisfaction.



## **Mindful eating is eating with intention and attention.**

Try some of these tips to eat mindfully and heighten your awareness:

- Make a guideline to sit whenever you are eating (car not included).
- Eat without distraction (TV, computer, phone or iPad) choosing a spot at home and work just for eating, most likely the kitchen, dining room, or breakroom.
- Savor each bite. Pay attention to flavors, textures, and consistency.
- Notice any emotions/feelings you are experiencing.
- Make eating a mindful and enjoyable activity. Set a placemat, use nice dishes, slow down and savor the food.
- Post op practice: when eating a meal, start with protein first and then vegetables.
- Eat slowly, making meals last 20 minutes. Check in with your hunger level at 20 minutes and decide if you are still hungry or full and ready to stop eating.
- Take small dime-sized bites and chew food thoroughly.
- Set your utensils down in between bites.
- Make a sign that says “EAT SLOWLY” as a reminder.
- Resign from the “clean plate club.”

## **Mindful eating exercise: Hunger/Fullness Scale**

- Many chronic dieters have learned to ignore their body’s hunger and fullness cues.
- Diets have taught them to chew gum or drink a diet soda to help stave off hunger.
- They are in the habit of cleaning their plate regardless of their fullness level.
- Food may have become a coping strategy for a stressful day, to avoid conflict, or a way to numb uncomfortable feelings.
- At first, it may be difficult to determine your hunger cues and stop when you are full. Be patient.
- Before a meal or snack, check in with your body and determine your hunger level.
- Close your eyes, place your hand on your stomach, and take a few deep breaths.
- Pay attention and listen to the cues your body is giving you.
- Remember that taste buds are on your tongue and not your stomach; physical hunger is very different than “head hunger.”

## The Hunger-Fullness Scale



Use this scale (1-10) to help you identify your initial hunger when you begin to eat. This rating system is purely subjective and will help you get in touch with your body's inner signals.

Visualize your stomach getting emptier and hungrier as you go down on the scale to 1, completely empty.

At 1, starving, completely empty, feeling weak/dizzy.

At 2, very hungry, irritable, low energy, stomach growling loudly.

At 3, pretty hungry; stomach is beginning to growl.

At 4, beginning to feel hungry.

**At 5, satisfied, neither hungry nor full.**

**At 6, slightly full/pleasantly full.**

At 7, slightly uncomfortable.

At 8, feeling stuffed.

At 9, very uncomfortable, stomach aches.

At 10, so full you feel sick, nausea.

Every time you start to eat check your hunger level. Ideally it should be a 3 or 4 level. If you are at a 3 or lower, you're over hungry and at risk for overeating.

- Take the time to find discover what hunger and fullness feels like for you.
- Fullness can range from the mere absence of hunger to physically suffering from stuffing too much food in.
- You won't hear your body's signals if you are multitasking at your desk or distracted by the TV, phone or while driving.
- Before, during and after you eat, rate your physical hunger and fullness.
- Practice using this scale as often as possible.
- Spend time getting to know the scale and use it shift your eating behavior.

## Body awareness

We live in a culture that allows the mind to make all the decisions; usually at the expense of the physical body. Pushing too hard at work, multitasking, and overcommitting are the norm. It's time to let your body be heard.

Check in with your body throughout the day to see what you need. Your body continually gives you signals of what it needs. Tune in, listen, and learn what the signals are telling you.

- Do you need a stretch break?
- Is it time for a trip to the restroom?
- Are you thirsty?
- Need to rest your eyes from the computer screen?
- Too cold? Too warm?
- Need a hug?
- Does a coworker leave you feeling drained or uplifted?
- Are you hungry and ready for a meal?
- Need to take a walk or be physically active?
- Tired and ready for bed?
- How do you feel?



Take the time to honor your body's needs in healthy and constructive ways.

## Mental mindset

- The journey toward weight loss, weight maintenance and better health takes time, effort and self-compassion. **Surgery is not a quick fix.**
- Establish the mindset: strive for progress, not perfection. You will have challenges and difficult times; it's normal and it's a learning process.
- When things don't go as planned, don't beat yourself up; adopt the motto "it's feedback, not failure."
- Setting a small, achievable goal each day and reaching it will do better in the long run than attempting to do things perfectly and coming up short.
- Start slow, make course corrections when needed and keep going!

## Photos and measurements

- Take photos & measurements now. You will be losing weight prior to surgery to meet your 5% weight goal so start now to track your progress.
- The scale weighs everything: fat, muscle, water, organs, etc., and will not always display the success you are achieving.
- By taking measurements and photos you will have additional evidence of your success to keep you motivated throughout this journey.
- Take photos (front & side) and measurements (chest, waist & hips) every month.
- The first month, choose one outfit you want to keep from your start weight. This will be your “before” outfit.
- Every month after surgery, take 2 photos. In the first photo wear the “before” outfit. In the second photo wear clothes that fits properly and shows your weight loss. In just a few months post op, you will see the before outfit get bigger and bigger while the second photo will show the physical transformation occurring.
- Print these photos and tape them to your mirror to look at daily. This will help your mind catch up with your body. Often patients look in the mirror and don't see their true body image.

## Clothes

- Go through your clothes; sorting and grouping the different sizes.
- Keep the next smaller size ready. You will lose quickly and sometimes clothes can be too big in a matter of a week or two.
- When clothes get too big for you to wear, donate them; you don't want the mindset of having a closet full of bigger clothes “just in case” you gain back weight.
- Instead, focus on implementing the healthy habits that will maintain your weight loss for life and imagine all the new, smaller sized clothes you will wear.

## Prep your home

With your family's help, clean out the pantry, freezer, and refrigerator of food challenges. Stock with healthy options: fruits, vegetables, lean proteins and protein shakes.

- Place a bowl of fruit on the counter and cut up veggies in a clear container in the fridge.
- Keep the foods that tempt you out of the house.
- If family members want tempting foods in the house, designate a specific area for them, out of sight and accessibility.
- Use smaller plates for your meals.
- When serving meals, keep pots or serving platters on the stove – not on the table.
- Store leftovers immediately after meals or immediately throw them in the trash.
- Designate space on the kitchen counter and cupboard just for your things.
- Start collecting the protein shakes and powders, sugar free syrups, extracts, flavored waters and drops, herbs, spices and food journal needed after surgery.
- Once you've had surgery, keep the blender, protein shakes, scale, and other things you will need, right on the counter, for you to see and use easily.
- Make sure your home is your haven - free from tempting foods.



## Change your food shopping habits

- Make a shopping list.
- Place lean proteins and fruits and vegetables at the top of the list.
- Avoid grocery shopping on an empty stomach; it will save your waistline *and* wallet.
- Shop the supermarket perimeter. Most whole foods are found along the walls of the store and it decreases temptation.
- By avoiding the inner isles, you can avoid the highly processed and tempting foods.
- Buy only the items that are necessary for you and your family.
- Avoid buying food items for other people that you may eat. If the thought, “But it’s for the kids” pops into your head, take a moment and ask yourself if you would eat it too if it was in the house.  
If the answer is yes, put it back on the shelf.
- For vegetables and fruits, buy canned, fresh and frozen. While canned is not as nutritionally dense as fresh or frozen, it is easy to have on hand and better than fast foods choices.
- Buy canned or fresh packed its own juice, no added sugar or syrup.

## Things to buy

Purchase the items you will need for the pre and post-surgery diets.



- Blender
- Ice cube tray – to freeze small portions of pureed foods.
- Small dishes and utensils (child-sized).
- Measuring cups, measuring spoons and a food scale. These items are needed to determine the exact portion sizes of the food you eat and drink.
- Crockpot – to prepare moist proteins, i.e. chicken or pork loin.
- Food journal or food record app – to track your protein, calories and all other habits needed to lose the weight and be healthy.
- The vitamins & supplements required for Bariatric surgery (see section 7 for more information). Buy both solid/tablet form to take now and liquid or chewable form for the first 2 months post op.
- High Protein, low sugar beverages and powders. **Be aware your taste preferences might change after surgery** so you may not want to buy protein shakes a case at a time.
- Buy a variety of flavors and brands of protein shakes/powders to ensure you have options after surgery.
- Sugar-free syrups made with sucralose (i.e. DaVinci and Torani brands) will make your vanilla and chocolate protein shakes more appetizing (i.e. vanilla shake with SF raspberry, caramel, or coconut. The chocolate shake with SF mint, coffee, or amaretto). Cash & Carry have a wide selection for a lower price.
- A supply of sugar-free, non-carbonated, non-caffeinated beverages. Herbal tea, Propel water, Sweet Leaf stevia drops, etc.
- Herb and spice blends – these help to make your protein meals more flavorful and interesting during the post op diet progression. (i.e. Italian blend, Creole seasoning, curry powder, etc.). No hot sauces or cayenne pepper for the first two months after surgery. Your pouch needs time to heal.



## Physical Activity

When planning for bariatric surgery, it's easy to focus only on the diet and overlook exercise. In reality, exercise is just as important as your diet for your long term success. There are many benefits you will reap when you exercise regularly but the most important as you proceed with this surgery is you will lose more weight and have an easier time maintaining it.



For many, the thought of exercise conjures up images of the gym, every day for an hour, sweating and huffing and puffing; followed by soreness and fatigue caused by being too aggressive right away. Stop! It doesn't have to be that way. Instead, start slow so you don't get discouraged or injured. Think small, do-able steps.

### 10 minute rule

- Begin with 10+ minutes a day of some type of activity.
- Knowing you only have to do 10 minutes can make getting started much easier.
- If you want to continue after 10 minutes, go for it!
- If you are done at 10 minutes, congratulations, you met your goal.
- Walking is the easiest and most accessible form of activity for most people.
- Wear good shoes. Buy shoes that feel good right away, without need to “break them in.”
- Activate your lifestyle: park farther away, take the stairs, clean the house, mow the lawn, and take stretch breaks at your desk. It all adds up.
- Joint pain is not healthy pain. If the exercise causes pain, modify the exercise to alleviate the pain or stop.
- If you have physical limitations in your lower body, try performing your strength exercises from a seated position.
- Try “Sit and Be Fit” videos or a mini exercise bike pedal system for upper body.



**Note:** Some patients may find it difficult to exercise prior to surgery due to health conditions such as shortness of breath upon exertion, knee or back pain, and heart conditions.

**Always check with your primary care physician before starting an exercise routine.**

### Benefits of Exercise:

- Increased life expectancy
- Burns calories
- Reduces fat while building muscle
- Weight management
- Lower blood pressure
- Improves mood and self-esteem
- Improved blood sugar control
- Improved insulin control
- Helps control hunger
- Stronger bones and muscles
- Improved sleep
- Increased energy
- Improved balance
- Reduced cholesterol
- Relieves stress



### Strength Training & Flexibility

For long term success you will need to incorporate strength training and stretching/balance into your routine.

- Strength training is essential to losing weight after surgery; it helps you build muscle, burn more calories, and improve balance. With your doctor's permission, you can begin strength training at least 3 times a week.
- Stretching activities that stretch and lengthen muscles can help you prevent back pain, injuries, and balance problems. Activities such as yoga combine stretching and relaxation and also improve balance; a great way to relax and unwind from a stressful day.

## Sleep

Most people don't realize that a lack of sleep, especially on a regular basis, has long-term health consequences.

Chronic lack of sleep can lead to:

- diabetes
- obesity
- high blood pressure
- heart disease
- early mortality

Sleep plays an essential role in good health and well-being throughout your life.

- Getting enough quality sleep can help protect your physical and mental health, your quality of life, and safety.
- Sleep affects almost everything in your body: immune system, stress hormones, appetite, blood pressure, and cardiovascular health to name a few.
- Get enough sleep. Aim for 7 - 8 hours a night. Some people will need more.

### Benefits of sleep:

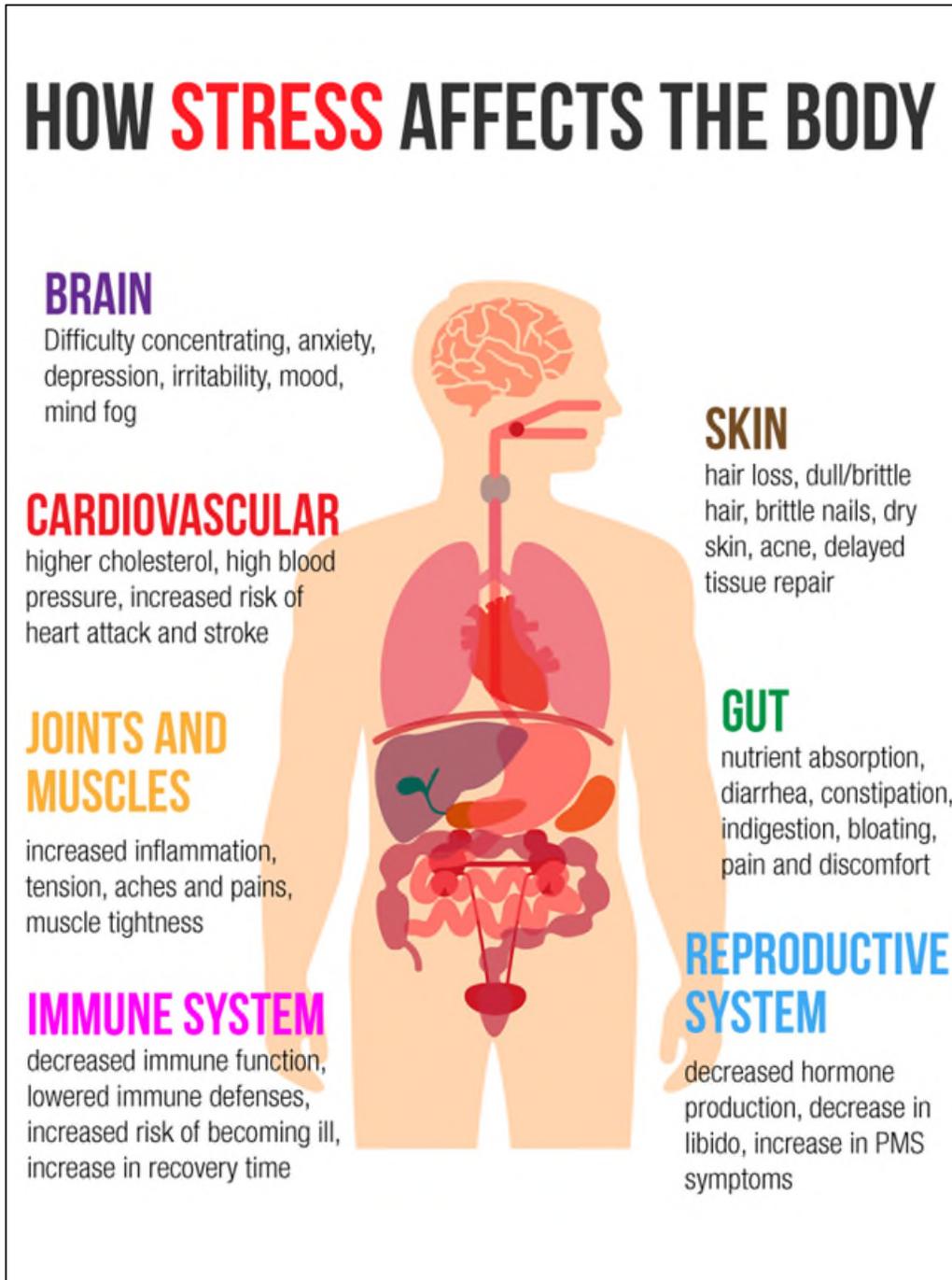
- Better weight control
- Manage blood sugars
- Boost immune system
- Improved mood
- Boosts creativity and focus
- Lower risk of injury
- Clearer thinking
- Better memory
- Quicker reflexes
- Less pain

### A few ideas for better sleep hygiene:

- Avoid alcohol, caffeine, or nicotine. They disrupt sleep.
- Exercise early in the day to help you fall asleep faster and sleep more soundly.
- Avoid difficult conversations or arguments before bed.
- Turn down the lights an hour before bedtime. This signals your body it's time to rest.
- Establish a relaxing pre-sleep routine to help with the transition to sleep time. Read a book, meditate, or take a bath or shower to wind down.
- Power down. Light from the TV, cell phone, tablets can prevent you from falling asleep.
- Keep your bedroom, dark, cool and quiet for a better slumber.
- If you have sleep apnea, use your C-pap machine.

## Stress Management

- Our bodies are hard-wired to react to perceived danger and stressful situations.
- Threats of predators or other aggressors are rare today but the insidious stressors of work responsibilities, commuting, keeping up on home chores, caring for a family, and making ends meet can take their toll.



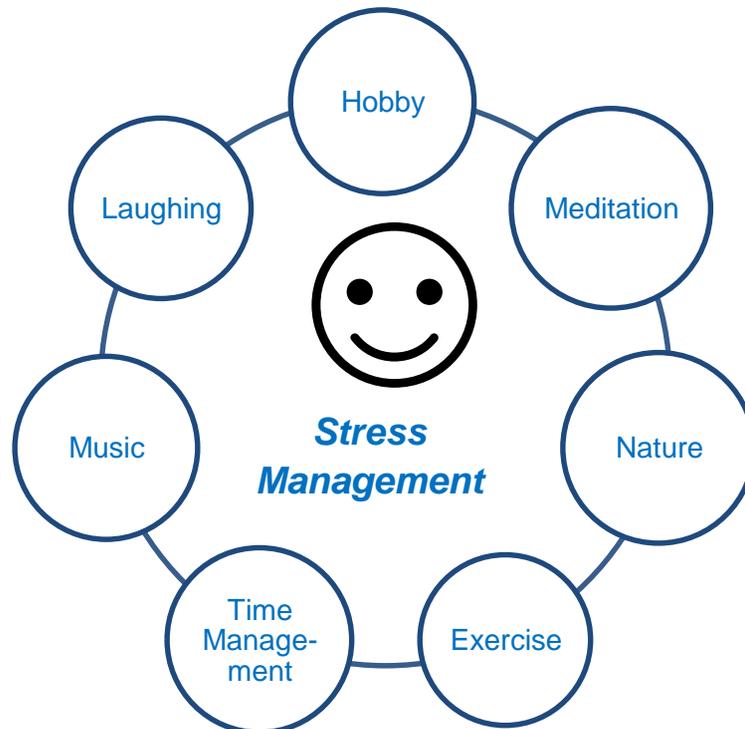
## Negative effects of stress on your health on mind, body, emotions and behavior:

- Overeating
- High fat/high calorie food choices
- Drinking too much alcohol
- Lack of exercise
- Headaches
- Fatigue
- Tight muscles
- Insomnia
- Nightmares
- Restlessness
- Worrying
- Indecision
- Negativity
- Impaired judgement
- Apathy
- Depression
- Irritability alienation
- Loss of confidence

All of these consequences can derail your weight-loss efforts. Integrating daily stress management habits can counteract the negative effects of stress and bring positive outcomes like increased productivity, better health and more happiness in general.

## Here are a few ideas to get you started:

- Take 3 - 5 long, slow deep breathes
- Hug your spouse, kids or pet
- Walk away for a stressful situation and cool down for 5 - 10 minutes
- Call a friend for support
- Adult coloring books
- Long hot shower or bath
- Blow bubbles
- Take a 10 minute nap
- Gardening
- Go for a walk
- Smell a rose, hug a loved one or smile at your neighbor
- Read a good book
- Try meditation or prayer to break the negative cycle



## Support

- The treatment of obesity is a lifelong process that requires continued support. Having a strong support network will help keep you on track when old maladaptive behaviors pop up.
- Be mindful who you want to know about your surgery. Some people may not agree with your decision and make unfavorable comments. The people you choose *not* to tell is just as important as the people you choose to tell.
- Determine the type of support/help you prefer.
- Let your family and friends know how they can support your efforts.
- Ask for the support and help you need and be willing to receive it.

### A few ideas:

- Keep all of your appointments with the bariatric medical team.
- Line up a few walking buddies and schedule regular walking dates.
- Have your spouse watch the kids so you have time to exercise.
- Ask family members keep tempting foods out of the house or hidden.
- Tell people who do not agree with your decision to be supportive by remaining silent about your decision.
- Let well-meaning friends know that you enjoy compliments but would rather not hear about bariatric failure stories.
- Receive encouraging comments on the habits you are establishing such as walking, drinking water or keeping food records.
- Ask spouse to cook healthier foods for you.
- Have a loved one come to the Bariatric support groups and medical appointments with you so they have a better understanding of your process.

## **Nutrition Support with the Bariatric Dietitian**

The Bariatric dietitian is here to provide the education and support you will need to optimize your nutrition and maximize your weight loss. The surgery alters your anatomy, making your nutritional needs very different from before surgery. You will need to establish and maintain eating habits that will be new to you. The dietitian will assist you in creating a plan to meet your needs.

**Pre op appointment:** review the diet stages pre and post- surgery, give ideas to make the diets as enjoyable as possible, create a plan, and answer all of your questions.

- **Post op appointment:** 7 - 10 days after surgery, review your progress, plan for the upcoming diet stages, and answer your questions.
- **2 month appointment:** review your progress, tweak your plans to maximize your weight loss and meet your nutritional needs, and answer your questions.
- **6 month appointment:** review your progress, make a plan to meet your ongoing nutritional needs, and answer your questions.
- **Ongoing support:** access to the Bariatric dietitian through phone at the Kaiser Permanente member website [kp.org/wa](http://kp.org/wa); My Chart.

## **Preparing for your bariatric appointments**

Your bariatric team is here to support you through this process. At every visit or phone call you will be asked a series of questions to help assess your progress. Keeping food records and having them totaled and ready will help expedite this process. The better prepared you are with the answers to questions, the more time you will have to ask questions and receive the care you need.

**Have this information ready to go for all your appointments.**

**Bring all of your questions, concerns, or comments!**

- Any nausea, vomiting or other problems?
- Keeping food records?
- Daily average of protein grams?
- Protein sources (i.e. protein shake, yogurt, chicken, eggs, cottage cheese)?
- Daily average of calories?
- Daily average of fluids? Types of fluids?
- Separating your fluids from meals? (post op Stage 3 and beyond) and number of minutes before &/or after meal?
- List of your daily vitamins & supplements. Chewable/liquid or regular?
- Are you exercising? What type, how much?
- Are you staying full?
- Any problems with grazing?
- What questions do you have today?

# BARIATRIC DIET PROGRESSION

Bariatric surgery is only the “starting line” of this treatment. The diet you follow **after** surgery and for the rest of your life will affect your ability to manage your weight. The diets before surgery and after are very different and move through many stages.

## Before Surgery:

- Pre-op Diet (2-4 weeks)
- Day before surgery diet

## After Surgery:

- Stage 1 Clear liquid diet (in hospital only)
- Stage 2 Full liquid diet (2 weeks for Bypass, 4 weeks for Sleeve)
- Stage 3 Puree diet (3 weeks)
- Stage 4 Soft diet (2 weeks)
- Stage 5 Regular bariatric diet (high protein, carbs from vegetables, fruits & legumes)

## Diet Progression

Progression	Diet	Duration	Dates
<b>Pre-op</b>	3+2+5	2 weeks (BMI <50) 4 weeks (BMI >50)	
<b>Day before</b>	Full Liquid or Surgeon Instructions	1 day 1 day	
<b>Surgery Day</b>	No food or drink	1 day	
<b>Stage One</b>	Clear Liquid (in hospital only)	2 days	
<b>Stage Two</b>	Full Liquid (when discharged)	2 weeks (Bypass) 4 weeks (Sleeve)	
<b>Stage Three</b>	Pureed	3 weeks	
<b>Stage Four</b>	Soft	2 weeks	
<b>Stage Five</b>	Regular Bariatric	Ongoing	

# PRE-OP DIET

## Preparing for Surgery

The purpose of the pre-op diet is for your safety and help to:

- **Shrink the liver.** The liver sits on top of your stomach. When you gain weight, the liver gets larger. The pre-operative weight loss diet helps to shrink the liver and gives the surgeon greater visibility and more space to work.
- **Make the operation safer;** reduce the risk of major complication such as leaks, infection, and the need for readmission to the hospital or the need to re-operate.
- **Prevent the “last supper syndrome” and weight gain.** Many people spend days or even weeks overeating all their favorite foods believing that having weight loss surgery is the end of eating as they know it. Don't worry, food won't go away forever, you will just eat differently. Your eating will change dramatically and you will likely prefer foods that are healthier as you are losing weight. You will focus on quality rather than quantity and you may still have some of the same foods but in different portions and different preparation.
- **Meet your 5% goal weight.** We highly recommend you are close to or have reached your 5% goal weight at the time of your pre op consults with the surgeon and dietitian.  
**Note:** some patients may be required to lose more weight per the surgeon's instructions.
- **Establish as many healthy habits prior to surgery as possible.** After surgery you are learning how to eat and drink in a completely new way. The more habits you have integrated into your life (i.e. food records, taking bariatric vitamins, exercising, etc.) the easier your transition post op will be.
- **Reduce decision anxiety.** By following the pre-op diet, you will reduce decision anxiety around food since you will have a specific meal plan. You can start to focus on positive behaviors related to eating and using other coping methods.

### **When to start the Pre-Operative Diet:**

If your BMI is less than 50, start the diet 2 weeks before your surgery date.

If your BMI is greater than 50, start the diet 4 weeks before your surgery date.

Please make sure to read this part carefully and follow these instructions. You will be reviewing this diet during your first visit with the dietitian.

**Please bring this binder with you for ALL visits.**

# PRE-OP DIET

**3+2+5 Daily Food Plan** - these are your only food options:

- ✓ 3+ Protein shakes
- ✓ 2+ Low calorie entrees
- ✓ 5+ Servings of fruits & vegetables

This food plan is designed to provide a structured diet that will simplify your food/meal choices, provide balanced nutrition, and keep you fueled and full throughout the day.

## Recommended Meal Replacement Products

### Shakes (a few examples)

Premier Protein Shake  
Bariatric Advantage  
Pure Protein

### Entrees

Lean Cuisine® entrees  
Healthy Choice® entrees  
Weight Watchers® Smart Ones entrees  
Atkins® entrees

\*Most entrees average 200-400 calories.



## Fruit and Vegetables

### A serving is:

One cup of fruit or vegetable - **non-starchy veggies encouraged**

One piece of fruit (about 5 - 6 oz.)

3 cups of leafy raw vegetables: cabbage, spinach, lettuce

½ cup of legumes (black beans, garbanzo beans, lentils, etc.)

**Note:** Legumes and beans are nutrient dense and naturally higher in calories per cup than other vegetables. Average cup: 200 - 300 calories and 10 - 20 grams of protein.

- You can eat fresh, frozen and canned veggies and fruits.
- Fresh and frozen vegetables and fruits are more nutritious than canned but canned is still better than eating fast food.
- Keep a few cans of fruits and veggies you like in your pantry.
- Buy canned fruit packed in its own juice; no heavy syrup or sugar added.
- Use herbs, spices and flavored vinegars to season your veggies. (i.e. fresh ginger, curry, salt-free seasoning blends or balsamic vinegar)

### **\*Aim for the ratio: 3 vegetables & 2 fruit servings per day**

- Most vegetables average 50 calories/cup
- Most fruits average 100 calories/cup or piece

**Note:** No juice or dried fruit.

## Sample day:

Breakfast: protein shake

Snack: 1 piece fruit

Lunch: low calorie entrée + 1 - 2 cups veggies

Snack: protein shake

Dinner: low calorie entrée + 1 - 2 cups veggies

Snack: protein shake with 1 cup frozen fruit

- This diet plan will provide **a minimum of 1200 calories and 90+ grams of protein** per day when you eat at least 3 protein shakes, 2 low calorie entrees and 5 servings of fruits & vegetables.
- **You do not need to go hungry**; you can always have another shake, more fruits & vegetables or even an extra entrée(s). An extra protein shake is better than grabbing for chips or going through a fast food drive through.

**Men:** may need to eat more to stay full; averaging 1400-1800 calories per day.

**Women:** may need fewer calories; averaging 1000-1400 calories per day.

- **f you cannot eat everything on the pre op diet (3+2+5); it's okay.** As long as you are eating 3 meals a day, eating breakfast within 2 hours of waking up, never going longer than 5 waking hours without eating, and are staying full, you don't have to get all the servings in. Stop eating when you are full. This is great practice for after surgery.
- **Eat at regular times throughout the day**; never go more than 4 - 5 waking hours without eating. Fueling your body throughout the day increases your energy and allows you body to lose weight.
- **When to start the pre op diet:** you will be on the pre op diet for either 2 or 4 weeks, depending on your BMI. Once you have your surgery date you can calculate the dates you need to be on the diet with an added day for the "day before surgery diet."
- **Reaching your 5% with a modified pre op diet:** Many patients like to start a modified version of this diet right away to help reach their 5% weight goal. You can start now by have a protein shake for breakfast rather than skipping, eat more veggies and fruits for snacks, and having a low calorie entree for lunch.

## Food records

- Start keeping records if you haven't already.
- This is an essential part of your success and the Bariatric team will ask about your food, fluid, vitamin intake, and exercise, etc.

The Essentials	Advanced
time of day	hunger and fullness levels: before & after meal
food item(s) and amount (oz., Tbsp., cup)	feelings/mood (happy, bored, depressed)
protein grams	who you dine with (alone, coworker, family)
calories	location of meal (work desk, in front of TV, car)
fluids - type & ounces	<b>post op:</b> challenges, nausea, vomiting, or pain
list of vitamins & supplements taken	food intolerances
exercise - type and minutes	foods well tolerated & filling

## Vitamins/Supplements

- Start taking the required supplements if you haven't already.
- Regular vitamins are permitted after surgery but most patients find taking either *liquid or chewable for the first 2 months after surgery more comfortable.*  
Separate the multivitamin with iron and calcium citrate by 2 hours.

### NO GUMMY SUPPLEMENTS OF ANY KIND.

Vitamins/Minerals	Gastric Bypass	Sleeve Gastrectomy
Multivitamin with iron: (chewable or liquid)	1 svg/day	1 svg/day
Calcium Citrate with Vitamin D3 (chewable or liquid)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)
Probiotic	1 svg daily	1 svg daily
Vitamin B12	1 svg/day (500 micrograms)	NA



## Fluids

**Aim for 64 ounces of non-caloric fluids a day. Water is preferred.**

- Post-surgery, you will be drinking sugar-free, non-carbonated, non-caffeinated beverages so start exploring options now.
- Try flavoring water with slice of cucumber or citrus; lemon, lime or orange.
- Carbonated drinks, coffee, tea (both decaf and regular) and other caffeinated beverages are not permitted after surgery, so you may want to wean off of them now.

### Fluids after surgery:

- No carbonated beverages; that is a permanent change.
- No coffee or tea (decaf include) for the first 2 months after surgery.
- In Stage 2 - Full Liquid, you will start to separate your clear fluids from your full liquid meals.
- **In Stage 3 - Pureed you will now need separate your fluids and wait 60 minutes after your meals and snacks to drink clear fluids again.** Separating fluids from meals is a lifetime habit.
- Drinking with your meals can wash food through too quickly causing dumping, take away the feeling of being full and lead to overeating. For others, drinking may fill them up and prevent them from getting enough protein or cause pain and vomiting.
- Practice separating your fluids from your meals. Wait 60 minutes after your meal before you drink liquids again.



## Exercise

- Start being active if you haven't already.
- Aim for doing some type of physical activity for 10+ minutes a day.
- Work on consistency and looking for ways to incorporate more activity into your life.
- Gradually increase over time.
- Developing an exercise routine is vital to maximizing your weight loss and keeping it off!

# DAY BEFORE SURGERY DIET

Dr. Gupta Full Liquid Diet	Dr. Landers Clear Liquid Diet - Bowel Prep
<p><b>Allowed:</b>            Protein shakes (from pre-op diet)            Whey or soy powdered drinks            Nonfat plain yogurt (sweeten with stevia or sugar-free syrups)            Soup (liquid only soups)            Vegetable Juice            Broth, Bouillon, bone broth            Herbal tea</p> <p><b>Not Allowed:</b>            Fruit juices            Ice cream</p>	<p><b>Allowed:</b>            Clear soup/broth/bouillon            Herbal tea            Clear juices: apple, cranberry, white grape            Nondairy popsicles            Sugar free gelatin            Water</p> <p><b>Not Allowed:</b>            Orange juice            Milk            Ice cream            Milk based soups</p>
<p>You can drink as many of the listed beverages or protein shakes you need to stay full throughout the day.</p> <p><b>NO SOLID FOODS OF ANY KIND;            NOTHING BLENDED</b></p>	<p><b>Laxative:</b>            Suprep 1 bottle at 8:00 am.                      1 bottle at 8:00 pm</p> <p><b>Fluids:</b>            Be sure to drink plenty of clear fluids to avoid dehydration from the laxative.            You may continue to drink clear fluids until midnight the night before surgery.</p>
<p><b>REMEMBER:</b> DO NOT eat or drink after midnight the night before your surgery.</p>	

# DAY 1

## DAY of SURGERY

**Nothing to eat or drink the morning of surgery;** except enough water to swallow the medications you've been instructed to take. If you eat or drink anything the morning of surgery, it will be cancelled.

- This means no food, beverages, mints, or gum. You can brush your teeth, rinse and spit.
- Know which medications to take and which to stop.
- You will not be eating or drinking the day of surgery, though you may be given ice chips after surgery.

# DAY 2 - in hospital

## STAGE 1 CLEAR LIQUID

### Goal

**The goal of the clear liquid diet is to provide liquids that are easily digested (broken down) and do not put a strain on your new stomach or intestines.**

- The clear liquid diet does not provide all the nutrients, vitamins, minerals, or calories that your body needs.
- A clear liquid diet is made up of clear liquids and foods that are liquid at room temperature.
- **Clear liquids include:** water, clear broth, sugar-free Jell-O and sugar-free beverages, herbal tea.

On Day 2, while in the hospital, you will be instructed to sip slowly and gradually increase your fluids:

1oz every hour for 4 hours  
2oz every hour for 4 hours  
3oz every hour for 4 hours  
4oz every hour for 4 hours

Overlake Hospital offers sugar free Jell-O and beverages made with NutraSweet (aspartame). Your bariatric team does not recommend this artificial sweetener; however if you want it while you are in the hospital that's okay. If you do not wish to have this, simply refuse it and ask for something else.

## DAY 3 - discharged home

### Clear Liquids to Full Liquid

You will go home on the third day if all goes well. You will most likely be able to drink 1 oz. every 15 minutes. The most important thing is you practice drinking slowly to avoid pain or dumping.

Discharge from the hospital is usually between 11:00 am – 1:00 pm.

#### Once home you start the full liquid diet.

Your home should set up and be ready for you:

- Protein shakes and powders – a variety of brands and flavors.
- High protein soups
- Broths, liquid only soups and low fat cream soups
- Yogurts – nonfat plain Greek yogurt and other SF, nonfat flavors with no fruit at the bottom
- Bariatric chewable or liquid supplements (multivitamin, calcium citrate, probiotic, and Vitamin B12 (bypass only))
- Sugar free syrups and PB2
- Herb and spice blends
- Small dishes and spoons
- Shake bottles
- Food record – app or journal

#### Post Op Dietary Goals

The post op diet progresses through 5 stages over about 2 months' time. This progression is designed for your health and safety. The diet progression is a medically prescribed diet will help you:

- Maximize your protein intake to assist wound healing and preserving as much muscle mass as possible.
- Minimize occurrences of dumping syndrome or physical complications.
- Make the diet as enjoyable as possible.

#### Dumping Syndrome

- Dumping syndrome is the result of the rapid emptying of foods or beverages into the small intestine.
- **Dumping is an expected consequence to what you ate or drank (high fat or sugar) and how you did it (too fast, too much).**
- When high concentrations of sugar or fat hit the small intestine, it causes an influx of fluid into the small bowel. This can lead to dumping.
- This is less likely to happen with the sleeve, but it certainly can, when eating inappropriately.

## Symptoms

- Diarrhea
- Nausea
- Vomiting
- Pain
- Abdominal cramps
- Bloating
- Epigastric fullness
- Sweating
- Headache
- Flushing
- Lightheadedness
- Palpitations (rapid heart rate)
- A strong desire to lie down

## Preventing Dumping Syndrome

- Avoid foods that are high in sugar &/or saturated fats.
- Do not drink with your meals, use a straw, or drink carbonated beverages.
- Don't eat full fat dairy products. Low fat dairy is typically fine.
- Avoid ice cream, cookies, juices, rice, pasta, bread, crackers, pizza, and similar foods.
- Avoid high fat meats, like hot dogs, burgers, pork sausage, bacon, pepperoni, etc.



## Stage 2 - FULL LIQUID (once discharged home)

The start date of the full liquid diet is the day you are discharged home (not day of surgery).

Duration:     Bypass = 2 weeks  
                  Sleeve = 4 weeks

### GOALS

This is a prescribed nutrition plan to allow the staple line in your stomach to heal without being stretched. Follow the diet guidelines to avoid side effects and complications.

- **Protein:** minimum 40 - 50+ grams/day; more if tolerated. Your first priority will always be to get in your protein.
- **Calories:** average 300 - 400+ calories/day; more at times, depending on the person & procedure.
- **Number of meals:** 4 - 6 meals. The protein shakes, yogurt, & soups (with protein powder added) are your meals. You will be eating and drinking throughout the day. Most meals average 2 - 4 oz.
- **Length of meal:** Meals should take a full 20 minutes to finish; no more than 30 minutes.
- **Mindfulness:** eat or drink very slowly; taking **small, dime-sized bites or sips**. Listen to your body to determine the amount you can consume in the 20 - 30 minute period; checking in often to determine your last sip/bite “threshold.”
- **Total fluids:** minimum 40 - 50+ ounces/day; more if tolerated. Aim for 4-6 ounces per hour to meet this goal. No coffee/tea; including decaf or green tea for first 2 months; it’s too acidic. No straws: this is a lifetime habit. Sip throughout the day & avoid gulping.  
**Fluids include:** water, herbal tea, broth, stevia or Mio drops, sugar-free flavored water (i.e. Vitamin Water Zero or Crystal Light Pure). You may need to vary fluid temperatures. **Protein shakes can count toward your total fluids during this stage only (Stage 2- Full Liquid).**
- **Separate Fluids from Meals:** separate clear fluids (i.e. water, broth) from your full liquid meals (protein shakes, yogurt, soup with protein powder). You may drink clear fluids again right after your meals. Waiting 60 minutes before drinking fluids again does not begin until Stage 3.

## FULL LIQUID GOALS – continued

- **Food Records: keep daily records!** Though your meals/nutrition intake is repetitive during this stage, keep food records to reinforce this habit of writing down your food and fluids. This is essential to long term success!

**Records include:** time of day, food, amount (oz., cup, Tbsp.), protein grams, calories, fluids (type & amount), exercise (type & minutes), and any challenges, symptoms or questions.

- **Vitamins/Supplements:** liquid or chewable for the first 2 months after surgery are easiest to take. Separate the multivitamin with iron and calcium citrate by 2 hours.

**NO GUMMY SUPPLEMENTS OF ANY KIND.**

Vitamins/Minerals	Gastric Bypass	Sleeve
Multivitamin with iron (chewable or liquid)	1 svg/day	1 svg/day
Calcium Citrate with Vitamin D3 (chewable or liquid)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)
Probiotic	1 svg daily	1 svg daily
Vitamin B12	1 svg/day (500 micrograms)	NA

- **Exercise:** you will take gentle, short walks even while you are in the hospital. Once home, for the first 2 weeks, no more than 10 minutes per session and no than 20-30 minutes per day.
- Start slow, move often; walk around every 1-2 hours. Remember you just had major surgery and can tire and fatigue easily. When exercising, listen to your body. If you feel as if you are pushing yourself, stop!
- **After 2 weeks,** incrementally increases every week until you are doing 30 - 45 minutes per day, 5 - 7 days a week.
- Do not lift weights or swim until your surgeon gives you clearance.

## Full Liquid Food Options

### Protein Shakes & Powders:

- Many patients taste preferences change after surgery. Have several different brands and flavors on hand in case this happens to you.
- Buy a variety of protein shakes and powders to determine the ones you like best.
- Chocolate, vanilla, unflavored protein powder, and chicken soup can be flavored to your liking.
- After surgery, your nutritional needs have been changed so you will need to **read the labels** to ensure you are meeting your protein requirements.
- Inadequate protein shakes can lead to high calories, low protein intake as well as dumping syndrome if the sugar content is too high.



### Yogurt: no chunks, no added sugar, no added fruit.

- Non-fat, plain Greek yogurt (i.e. Fage, Oikos).
- Stir in flavored protein powders (i.e. chocolate) SF syrups (i.e. DaVinci), stevia flavored drops (i.e. Sweet Leaf) to add variety of flavors.
- Buy several different flavors to increase variety.



### Soups and Broths with unflavored protein powder added.

- High protein soups: beef, chicken, or tomato protein soup
- Liquid only soups (i.e. tomato, squash, carrot)
- Low-fat cream soups (i.e. chicken, mushroom, broccoli) **strained**
- There are many unflavored protein powders available. Make sure to keep temperature under 140 degrees.
- Broth, bouillon, or consommé, or bone broth are clear liquids. You can add protein powder or NF plain Greek yogurt to make them into a meal/protein source.
- No high fat cream soups, no chunks, and no broth-based soups with noodles, rice, grains.
- No chili, bean or lentil soups (these are allowed in Stage 3, pureed).



**IMPORTANT:** Follow the diet guidelines your bariatric dietitian has provided you. You will find a lot of information about post op bariatric diets available on the internet and through friends and family but they may not be in alignment with what your bariatric surgeon, dietitian, and team want you to follow. When in doubt, contact the dietitian and ask first.

**Formula for high protein shakes and powders:**

- 150 - 180 calories or less
- 20+ grams of protein
- < 7 grams of sugar
- No aspartame (NutraSweet). Sucralose (Splenda) is okay.

**AVOID: high calories & sugar, low protein**

<b>NUTRITION FACTS</b>	
Serving Size: 3 scoops (60g)	
Servings per Container: 9	
<u>Amount Per Serving</u>	
<b>Calories</b>	240
Calories from Fat	70
	% Daily Value
<b>Total Fat</b> 7g	11%
Saturated Fat 1g	5%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 310mg	13%
Potassium 460mg	13%
<b>Total Carbohydrate</b> 33g	11%
Dietary Fiber 8g	32%
Sugar 18g	
<b>Protein</b> 15g	30%

**BEST: high protein, low calories & sugar**

<b>Nutrition Facts</b>	
Serving Size 1 Rounded Scoop (31.5g)	
Servings per Container 30	
<u>Amount Per Serving</u>	
<b>Calories</b> 120	Calories from Fat 15
	% Daily Value
<b>Total Fat</b> 1.5g	2%
Saturated Fat 1g	5%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 330mg	4%
<b>Total Carbohydrate</b> 2g	1%
Sugars 0g	
<b>Protein</b> 25g	60%

**BETTER: but protein is low**

<b>NUTRITION FACTS</b>	
Serving Size: 1 bottle (11.5 oz.)	
Servings per Container: 4	
<u>Amount Per Serving</u>	
<b>Calories</b> 180	Calories from Fat 70
	% Daily Value
<b>Total Fat</b> 8g	12%
Saturated Fat 1g	5%
Trans Fat 0g	
<b>Cholesterol</b> 10mg	3%
<b>Sodium</b> 300mg	13%
Potassium 310mg	9%
<b>Total Carbohydrate</b> 14g	5%
Dietary Fiber 3g	12%
Sugar 6g	
<b>Protein</b> 15g	30%

**BEST: high protein, low calories & sugar**

<b>Nutrition Facts</b>	
Serving Size 1 Shake (11 fl oz.)	
Servings per Container	
<u>Amount Per Serving</u>	
<b>Calories</b> 160	Calories from Fat 25
	% Daily Value
<b>Total Fat</b> 3g	5%
Saturated Fat 0g	5%
Trans Fat 0g	
<b>Cholesterol</b> 25mg	8%
<b>Sodium</b> 270mg	11%
Potassium 310mg	9%
<b>Total Carbohydrate</b> 4g	1%
Dietary Fiber 1g	4%
Sugar 1g	
<b>Protein</b> 30g	60%

## Protein Drinks & Powders Brands

**Note:** the calories, grams of protein and sugar may be slightly different depending on the flavor of each protein shake or powder. Make sure to read the label.

Brand	Calories	Protein grams	Sugar gram	Where to buy
Premier Protein	160	30	1	Amazon, Costco, Target
Pure Protein	170	35	1	Amazon, Walmart, Walgreens
Optimum Nutrition	120	24	2	Amazon, Costco, GNC, Vitamin Shoppe
EAS 100% Pure Whey Protein Powder	160	30	2	Amazon, Walmart, Target
Muscle Milk <i>Lite</i>	100	20	0	Amazon, Sam's Club
Bob's Red Mill All Natural Whey Protein Concentrate	80	15	1	Amazon, local grocery stores
Quest Nutrition Protein Powder	100	20	0	Amazon, GNC

## Lactose-Free (whey protein isolate)

Brand	Calories	Protein grams	Sugar gram	Where to buy
Bariatric Advantage	160	27	0.5	BariatricAdvantage.com
Unjury	100	21	3	Unjury.com
Beneprotein (1 scoop)	120	24	2	Amazon, Walmart
Isopure Zero Carb Powder (1 scoop)	160	30	2	Amazon, GNC, Vitamin Shoppe
Isopure Zero Carb Ready-to-Drink	100	20	0	Amazon, GNC, Vitamin Shoppe
Syntrax Nectar	80	15	1	Amazon, Vitamin Shoppe

### Soy Protein Powders

Brand	Calories	Protein	Sugar grams	Where to buy
Bob's Red Mill Gluten Free Soy Protein Powder	80	17	0	Amazon, local grocery stores
Trader Darwin's Soy Protein Powder	110	23	0	Amazon, Trader Joes
Jarrow Formulas Iso-Rich Soy	110	25	0	Amazon, GNC, Vitacost

### Egg white Protein Powders

Brand	Calories	Protein grams	Sugar grams	Where to buy
MRM Egg White Protein Powder	110	25	0	Amazon, Vitamin Shoppe
Jay Robb - Egg White Protein Powder	115	24	0	Amazon, Vitamin Shoppe, jayrobb.com
Now Foods Egg white Protein	100	20	1.5	Amazon, iherb.com
PaleoPro Protein Powder	127	23	0	Amazon

### Plant-based, Organic Protein Options

Brand	Calories	Protein grams	Sugar grams	Where to buy
Nutiva Organic Hemp Protein Powder	90	15	1	Amazon, Costco, Target, Vitamin Shoppe
Bob's Red Mill Hemp Protein Powder	120	14	1	Amazon, local grocery stores
Bob's Red Mill Protein & Fiber Nutritional Booster	160	20	1	Amazon, local grocery stores
Bob's Red Mill Vanilla Protein Powder Nutritional Booster	180	20	3	Amazon, local grocery stores
Orgain Organic Protein	150	21	1	Amazon, Costco, Target
Unjury Planted True	120	20	3	Unjury.com

**Note:** plant based protein powders have a tendency to be a bit chalky or grainy. Make sure the return policy before buying, in case you do not like it.

## Enhancing the Full Liquid Diet

1. **Your tastes may change after surgery** so have a variety of different brands of shakes & powders on hand to ensure you have several to choose from after surgery.
2. Buy “base” flavors that can be flavored to increase variety: of vanilla, chocolate, unflavored protein powders and chicken soup.
3. Buy different flavors of sugar free syrups to add to your protein shakes and nonfat, plain yogurt. Sugar free DaVinci and Torani brands are both sweetened with sucralose (Splenda) and Cash & Carry stores have a wide selection for a lower price than regular grocery stores.
4. Stock up on herbs and spices to flavor broths and low fat cream soups. There are many blends already for you to use: Italian, taco, Creole seasonings. Mild curry powder, thyme, basil, rosemary, cumin, etc.

**For the first 2 months avoid any spicy seasonings like cayenne pepper, Tabasco or hot sauce; it’s too hard on the pouch.**

### For protein shakes and powders:

- Vanilla + SF caramel
- Vanilla + SF white chocolate mocha
- Vanilla + SF orange = “creamsicle”
- Vanilla + SF pumpkin spice
- Chocolate + SF raspberry
- Chocolate + SF coconut
- Chocolate + PB 2 = “chocolate peanut butter cup”
- Chocolate + SF peppermint

### For soups or broths:

- NF plain Greek yogurt + strained low-fat cream of chicken soup + taco seasoning
- NF plain Greek yogurt + butternut squash soup + mild curry powder
- Unflavored protein powder + chicken broth + Creole seasoning
- Unflavored protein powder + strained low-fat cream of mushroom soup
- High protein chicken soup + thyme and rosemary

Be very careful with soups available in the deli section at grocery stores; many are high fat and sugar. Be sure to read the label before buying to determine if it meets your needs.

**Remember: the post op diet progression (Stages 1 – 5) lasts approximately 2 months. During this time it’s important to adhere to the prescribed diets (full liquid, pureed, and soft foods) to ensure proper nutrition, promote healing, and reduce chances of dumping syndrome or complications.**

## Yogurt

Yogurt is a very healthy protein option *depending* on the individual and type of yogurt you eat.

There are many yogurts with high protein and low sugar and there is just as many with high sugar and low protein. You will need to read the labels carefully to determine if the yogurt meets your nutritional needs.

### Yogurt label reading guideline:

- Look for high protein, low sugar, and low calorie.
- Keep sugar grams <7 grams to avoid dumping.
- Try buying plain, nonfat yogurts and adding flavored protein powder or sugar free syrups to flavor them.

### Recommended Yogurts

Yogurt	Calories	Protein	Sugar
Dannon Oikos Nonfat Plain Greek	80	15	6
Chobani Nonfat Greek	80	15	4
Stonyfield Organic Greek, Nonfat, Plain	80	15	6
Siggi's 0% Nonfat Plain	80	15	4
Fage Total 0% Plain Greek	100	18	7
Nancy's Nonfat Plain Greek	120	22	7
Carb Master (Kroeger) - average all flavors	80	12	3
Dannon Activia Greek Light Vanilla Nonfat	80	13	6
Yoplait Greek 100 Vanilla	100	13	6
Dannon Light & Fit Nonfat Greek - average all flavors	120	15	7
Dannon Oikos Triple Zero - average all flavors	120	15	7

## Stage 2 - FULL LIQUID SAMPLE Meal Plan

- Separate your fluids from your meals but you do not have to wait 60 minutes before drinking again.
- Meals include protein shakes, yogurt, and soups or broths with protein powder added.

Time	Food or beverage (20 minutes for meals)	Protein grams	Calorie s	Time (minutes)	Notes
8:00 am	3 oz. Premier protein shake  <i>1 calcium citrate chewy bite</i>	8	44  15	22	  <i>1 svg. calcium</i>
8:25 am	10 oz. water	0	0	60	
10:00 am	3 oz Fage Total Fat 0% plain Greek yogurt, w/SF peach syrup	9	50	18	<b>Walked around block 5 minutes</b>
10:30 am	6 oz. Propel Lemon water	0	0	50	
12:00 pm	4 oz. Unjury Chicken soup protein shake with curry powder (1/2 packet) <i>1 calcium citrate chewy bite</i>	11  0	45  15		Tasted good.  <i>1 svg. calcium</i>
12:40 pm	8 oz. water with lime juice	0	0	1 hour	<b>Walked around house</b>
2:10 pm	4 oz Vitamin Water Zero - orange	0	0	30	
3:00 pm	4 oz vanilla protein shake with SF raspberry flavored syrup  <i>2 chewable multivitamin w/iron 1 chewable probiotic 1 Vitamin B12. 500 mcg</i>	11  0	60  35	45	Napped 30 minutes  <i>1 svg Multivitamin 1 svg probiotic 1 svg Vit B12</i>
5:15 pm	¼ cup cream of mushroom soup (strained) with ¼ scoop Unjury unflavored protein powder  <i>1 calcium citrate chewy bite</i>	1  5	40  25  15	18	<b>Walked around house</b>  <i>1 svg. calcium</i>
7:00 pm	8 oz. lemon zinger tea	0	0	30	
<b>Totals</b>	<b>Total fluids: 52 oz. Exercised: 10 minutes Vits/Supps: all in</b>	<b>45 grams</b>	<b>344 calories</b>	<b>Meals: ~20 minutes</b>	

## TIPS

- **If foods feels ‘stuck’ do not try to push it down by swallowing fluids as drinking fluids will cause more discomfort and possibly regurgitation. Instead get up and walk around.**
- Consuming smaller servings of protein at each meal is metabolically more effective than all at once.
- Make sure to measure the amount of protein shakes and fluids you are taking into ensure you are properly hydrated and receiving enough protein grams.
- Plan ahead and have the protein drinks ready to drink.
- Use a thermos or chill your glasses in the freezer to keep your protein drinks cool while you are drinking them.
- **Water:** some patients find that water tastes “funny,” have a metallic taste, or even be painful to drink. This is usually temporary but can be remedied by adding in some flavoring (i.e. squeeze of lemon, stevia, or Mio drops).
- Often patients are sensitive to the temperature of fluids after surgery; hot or cold may be less tolerable. If this happens, experiment with the temperature of your fluids until you find what works best for you.
- It is very important to stay hydrated; sip fluids throughout the day. If you are well hydrated, your urine should be light yellow.
- Set a timer throughout the day to help you remember to have a meal.
- Set a time for 20 minutes at meal time to keep you from drinking too fast.



## AVOID

- **Do not force yourself to finish fluids if you feel full.**
- Sugar-free Jell-O, puddings and popsicles contain aspartame (NutraSweet) are not recommended. If you choose to eat them, they DO NOT count as a meal since they have no or little nutritional value
- Avoid gulping, straws, or drinking too fast; it introduces air into your system and may cause gas pains.
- Fruit or vegetables juices.
- Milk, soy milk, almond milk, coconut milk, etc. They contain little to no protein.
- Carbonated beverages, caffeine, sweet beverages, sugar.
- Oatmeal or cream of wheat
- Ice cream, sorbets, or frozen desserts of any kind.

## STAGE 3 - PUREED DIET

Duration: 3 weeks

### GOALS

Transition from full liquid to pureed to allow your stomach to adjust to semi-solid solid protein/food. Follow the prescribed diet to help prevent dumping syndrome or blocking your stomach pouch opening.

- **Protein:** 40 - 50+ grams/day; more if tolerated.
- **Carbohydrates:** after a few days of becoming comfortable with proteins you can tolerate, fruits and vegetables can be introduced. No stringy, fibrous or raw vegetables. Also avoid fruits with skins, seeds or membranes that could potentially “get stuck.”
- **Calories:** average 300 - 500+ calories/day. If you take in more protein grams, your calories will increase accordingly.
- **Number of meals:** 3 + 1-2 snacks as needed. Establish regular meal times and never go longer than 4 - 5 waking hours without eating. Even if you are not hungry you should take a few bites of food to stay on your eating schedule.
- **Length of meals:** meals should take a full 20 - 30 minutes to finish. Continue to drink/eat slowly with dime-sized bites and sips.
- **Mindfulness:** eat or drink very slowly; taking **small, dime-sized bites or sips.** Listen to your body to determine the amount you can consume in the 20 - 30 minute period; checking in often to determine your last sip/bite “threshold.”
- **Total fluids:** 40 - 50+ oz. /day; more if tolerated. Aim for 4-6 ounces per hour to meet this goal. Continue drinking water, herbal tea, broth, flavored waters, etc. Sip throughout the day and avoid gulping. **Protein shakes no longer count toward your total fluids.**
- **Separate fluids from meals:** stop drinking 15 minutes prior to your meal or snack, spend 20 - 30 minutes on your meal and wait 60 minutes after your meal before resuming fluids.
- **Separating fluids from meals & snacks is a lifetime habit.**
- **Food records:** continue tracking time of day, food, amount (oz., cup, Tbsp.), protein grams, calories, total amount and type of fluids, list of vitamins, exercise (type and minutes), and any challenges, symptoms or questions.

(continued on next page)



- **Vitamins/Supplements:** daily vitamins & supplements (liquid or chewable) Separate the multivitamin with iron and calcium citrate by 2 hours.

**NO GUMMY SUPPLEMENTS OF ANY KIND.**

Vitamins / Minerals	Gastric Bypass	Sleeve Gastrectomy
Multivitamin with iron (chewable or liquid)	1 svg/day	1 svg/day
Calcium Citrate with Vitamin D3 (chewable or liquid)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)
Probiotic	1 svg daily	1 svg daily
Vitamin B12	1 svg/day (500 micrograms)	NA

- **Exercise:** 20 minutes of daily activity; incrementally increases every week until you are doing 30 - 45 minutes per day, 5 - 7 days a week. When exercising, listen to your body. If you feel as if you are pushing yourself, stop!

# **ALL FOODS MUST BE PUREED.**

- **ALL FOODS** need to be pureed to the consistency of applesauce; smooth with no chunks
- Your stomach is still healing and solids foods can cause dumping syndrome or pain.
- Start slowly; with about 1/4 - 1/3 cup of food.
- Listen to your body and stop when full.
- Remember to take dime-sized bites and sips to prevent eating too fast or too much.
- If you take a few bites of food and it doesn't feel right, stop eating. Your pouch may not be ready for it yet.

## **Meat, Fish, Poultry**

- Chicken - dark meat is better tolerated (no skin)
- Shrimp, scallops or fish
- Canned chicken, tuna or salmon packed in water
- Deli meat of turkey, lean ham or lean roast beef
- PB2 - powdered peanut butter (local grocery store or Amazon)
- Tofu



## **Eggs, Cheese, Dairy**

- Nonfat or low-fat Yogurts: sugar-free, plain Greek yogurt or regular yogurt
- Eggs, egg whites or egg beaters
- Cottage cheese, non-fat or low- fat
- Ricotta Cheese, non-fat or low-fat
- Laughing Cow cheese wedges (no hard cheese during this stage)

## **Soups (with protein added)**

- Low-fat cream soups made with skim milk
- Black bean, lentil, split pea
- Mild chili
- Tomato, butternut squash, carrot
- Chicken or beef flavored protein powders/soups

## **Fruits/Vegetables:** 1 - 2 dime sized bites.

- Fruits: no skins, membranes or seeds.
- Vegetables: no raw, fibrous, stringy or leafy green vegetables for the first two months post op; they are too hard on your pouch.
- Vegetables must be cooked & pureed.

## **Pureed Meal Ideas**

- Use broth, milk or water to puree with your meats/proteins.
- Pulse the food in the blender until desired consistency of applesauce is achieved.

## Meat, Fish, Poultry

- Chicken thigh with seasoning (Taco, Italian, chili powder)
- Canned tuna mixed with cottage cheese and dill weed
- Shrimp with cocktail sauce
- Chicken thigh with PB2, cilantro, and coconut water (Thai chicken)

## Eggs, Cheese, Dairy

- Soft scrambled eggs with pico de gallo (liquid only)
- Laughing cow cheese with deli ham & gourmet mustard
- Nonfat plain Greek yogurt with mashed peaches (no skin)
- Cottage cheese/bleu cheese recipe and chicken
- Fat free refried beans with cottage cheese

## Soups (with protein added)

- Wendy's chili with cottage cheese
- Butternut squash soup with non-fat plain Greek yogurt and Creole seasoning
- Low fat mushroom soup with unflavored protein powder
- Soups and legumes are primarily a carbohydrate source. Make sure to puree them with unflavored protein powder, cottage cheese, or tofu to ensure you are taking in protein.
- **No broth-based soups or soups with noodles, rice, or other grains.**

## Fruits/Vegetables

- Mashed melons, bananas, pears, peaches, nectarines (no skin)
- Cooked & pureed sweet potatoes, butternut squash, carrots, broccoli, cauliflower.



## Cottage Cheese Recipes (Stage 3 and Beyond)

### Blue cheese dip/dressing

- 1 pint nonfat or low fat (1%) cottage cheese
- 1 ½ oz. blue cheese
- 1-3 cloves of garlic- to taste
- Splash of Worcestershire sauce - to taste
- Salt & pepper – to taste
- Nonfat milk



Place all of ingredients in blender or food processor.  
Add enough milk to your desired consistency.  
It can be used as dip, sauce or dressing.

#### **For ¼ cup\***

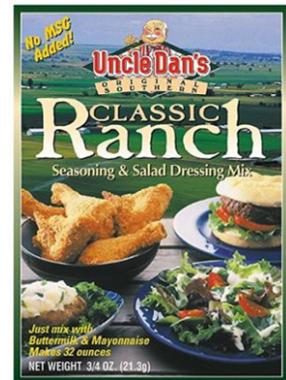
65 calories

8 protein grams

\*based on 1% fat cottage cheese

### Ranch dip/dressing

- 1 pint nonfat or low fat (1%) cottage cheese
- 1 packet Uncle Dan's Ranch
- Nonfat milk



Place all of ingredients in blender or food processor.  
Add enough milk to your desired consistency. It can be used as dip, sauce or dressing.

#### **For ¼ cup\***

45 calories

7 protein grams

\*based on 1% fat cottage cheese

\* If using Hidden Valley seasoning packet it is 65 calories for ¼ cup.

**Note:** you could also substitute the cottage cheese with nonfat plain Greek yogurt, light ricotta cheese or tofu; though cottage cheese will provide the best calorie to protein ratio and cheesy flavor.

## Stage 3 - PUREED SAMPLE Meal Plan

- Stop drinking fluids 15 minutes before your meal/snack and wait 60 minutes after to resume drinking.
- **Protein shakes no longer count toward your total fluids intake.**

Time	Food or Beverage (20 minutes for meals)	Protein grams	Calorie s	Time (minutes)	Notes
7:30 am	1 large scrambled egg with liquid from pico de gallo 1 bite peach, no skin  <i>1 calcium citrate chewy bite, 500 mg</i>	6  0 -	71  3 15	22	<i>1 svg calcium</i>
9:00 am	8 oz. peppermint tea	0	0	30	
10:00 am	12 oz. water - Mio drops	0	0	50	
11:20 am	¼ c. tomato soup with ¼ c. cottage cheese  <i>1 calcium citrate chewy bite, 500 mg</i>	1 7 -	45 10 15	20	<b>Walked 10 minutes</b>  <i>1 svg calcium</i>
1:00 pm	16 oz. water	0	0	2 hours	
3:00 pm	4.5 oz. chocolate protein shake over ice  <i>1 multivitamin with iron 1 chewable probiotic 1 vitamin B12, 500 mcg</i>	15  - - -	80  35 0 0	15	<i>1 svg Multivitamin 1 svg probiotic 1 svg Vit B12</i>
4:30 pm	12 oz. licorice spice tea	0	0		<b>Walked 10 minutes</b>
6:00 pm	2 oz. chicken thigh 2 tbsp. sweet potatoes splash of chicken broth  <i>1 calcium citrate chewy bite, 500 mg</i>	14 0	96 10  15	23	<i>1 svg calcium</i>
7:20 pm	6 oz. water with lemon	0	0	20	
<b>Totals</b>	<b>Total fluids: 54 oz. Exercised: 20 minutes Vits/Supps: all in</b>	<b>43 grams</b>	<b>395 calories</b>	<b>Meal time 20 minutes</b>	

## TIPS

- If foods feels ‘stuck’ do not try to push it down by swallowing fluids as drinking fluids will cause more discomfort and possibly regurgitation. Instead get up and walk around.
- **Eat slowly; use 10 minutes per ounce as a guideline** & a full 20 minutes to complete a meal. Practice mindful eating. Breathe after every bite.
- Puree meats/proteins with broth, milk or water in blender; pulse until the consistency of applesauce is achieved.
- Add non-fat powdered milk or acceptable protein powders to your foods to boost protein amount.
- Use herbs and spices to flavor the proteins/meats.
- Try one new food at a time.
- Eating or drinking too fast can cause nausea, vomiting, or pain.
- Stop eating if you experience any nausea or vomiting.
- If you feel nauseated or experience gas or bloating after eating, then you are not ready for this food. Wait a few days before trying this food again.
- Listen to your body. Stop when you feel full.
- Portions may need to be adjusted depending on your individual tolerance. 2-3 bites of food may be all that you can tolerate initially.
- Gradually increase quantity as tolerated.
- Be very careful with soups available in the deli section at grocery stores; many are high fat and sugar. Be sure to read the label before buying to determine if it meets you needs.
- Eat animal proteins/meats as your main protein sources; and protein shakes and powders to supplement your daily intake.
- You will most likely only be able to eat 1-2 bites of fruits and vegetables since you are eating your protein first. You will be able to eat more in time.
- If you are feeling constipated, making sure you are drinking enough water and walking helps. If you need more help, try Miralax, a stool softener or add some Benefiber to your foods. Section 8 has more information on constipation.

## Helpful Tips

## AVOID

- **No baby food**; it does not meet the nutritional needs of adults.
- No hard cheese.
- Avoid pasta, rice, bread, crackers, pastries, ice cream, candy and other similar foods.
- Extreme temperatures may cause dumping syndrome.
- **Do not chew gum or suck on hard candy**. If swallowed, it can obstruct your outlet.

## STAGE 4 – SOFT FOOD

**Duration: 2 weeks**

### GOALS

The Stage 4 Soft Foods diet begins approximately 5-7 weeks post-surgery; depending on your procedure. While your foods no longer need to be pureed, you still want to focus on moist and tender foods. Make a special effort to ensure that you chew all foods thoroughly. At this point, you're starting to move toward a more regular diet that should include a variety of foods and good sources of protein at every meal.

Soft solids are gradually re-introduced to your system and will be more filling. Start to move away from soft, mushy foods and liquid protein, as these types of foods will be less filling over time.

- **Protein:** 50 - 60+ grams/day; more if tolerated. Always eat protein first and at every meal.
- **Calories:** 400 - 600+ calories/day. Choose high protein sources first, followed by vegetables, fruits, and legumes.
- **Number of meals:** 3 + 1-2 snack(s). Eat at regular meal times. Never go longer than 4 - 5 waking hours without eating.
- **Length of meals:** continue to eat slowly. Meals should take a full 20 -30 minutes to finish. Slow, mindful eating helps you determine your last bite threshold, avoid overeating and dumping.
- **Mindfulness:** eat or drink very slowly; taking **small, dime-sized bites or sips**. Listen to your body to determine the amount you can consume in the 20 - 30 minute period; checking in often to determine your last sip/bite "threshold." This is a critical time to be mindful as your food looks normal again (not liquid or pureed). It's easy to fall into old habits of eating too fast when foods look normal.
- **Total fluids:** 56 - 64+ oz. /day. Non-caloric, non-carbonated, non-caffeinated beverages.

- **Separate fluids from meals:** stop drinking 15 minutes prior to your meal or snack, spend 20-30 minutes on your meal and wait 60 minutes after your meal before resuming fluids. **Separating fluids from meals/snacks is a lifetime habit**
- **Food Records:** track time of day, food, amount, protein grams/ounces, calories, total and types of fluids, list of vitamins, exercise (activity, minutes), and any challenges or symptoms.
- **Vitamins/Supplements:** continue with liquid or chewable; take daily. Separate the multivitamin with iron and calcium citrate by 2 hours. **NO GUMMY SUPPLEMENTS OF ANY KIND.**

Vitamins/Minerals	Gastric Bypass	Sleeve
Multivitamin with iron: (chewable or liquid)	1 svg/day	1 svg/day
Calcium Citrate with Vitamin D3 (chewable or liquid)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)
Probiotic	1 svg daily	1 svg daily
Vitamin B12	1 svg/day (500 micrograms)	NA

- **Exercise:** daily physical activity. Aim for 20-30 minutes a day. Increase as tolerated.



✓ Slow down  
✓ Eat with care



## Meats

- Meats should be soft and moist enough to swallow without “sticking.”
- Marinated meats, boiled meats and the dark meat of chicken tend to be well tolerated.
- Fibrous meats such as dry turkey, chicken breast, or steak can be difficult to digest.
- Microwaving and grilling dries out meats, making them difficult to tolerate.
- Meats can dry out in the refrigerator so add some water or chicken broth before microwaving to make the meat juicier.
- A crock pot can be very helpful in keeping meats moist.
- Do not fry your meats; it adds calories, can make foods hard to digest, and cause dumping.
- Weigh food on a scale to ensure you are getting adequate protein. If you do not own a food scale, cook a piece of protein the size of a deck of cards.

## Fruits and vegetables

- Vegetables need to be soft and well-cooked in the first 4-6 weeks.
- Avoid fibrous vegetables such as celery, cucumbers, corn, pea pods.
- No raw vegetables or salads while progressing through the 5 stages (the first 2-3 months post op).
- Frozen fruits and canned fruits (packed in their own juice and drained) are well tolerated as well as thawed frozen fruit.
- Avoid membranes of oranges, tangerines and grapefruit.
- Avoid cores, skins and seeds of fruits, such as apples, grapes, berries, and tomatoes.

## TIPS

- **If foods feels ‘stuck’ do not try to push it down by swallowing fluids as drinking fluids will cause more discomfort and possibly regurgitation. Instead get up and walk around.**
- Stop eating as soon as you know the next bite is too much.
- **Meats:** You no longer need to puree your meat, but you should still trim any visible fat and remove all of the skin from poultry. You should continue to bake, broil, or steam your meats.
- **Cheese:** have soft cheeses.
- Introduce one food at a time to determine if tolerated.
- Try new proteins on the weekends or in the evenings when you are home, just in case it’s not well tolerated yet.
- If you are unable to eat enough of the protein requirements, you can supplement with protein shakes or powders. You may find that the protein shakes will be less filling over time.
- Not everyone will be able to eat all of the recommended foods, especially at first.
- Learn your body’s fullness cues and do not overstuff your pouch or sleeve.
- If you are not hungry, you still need to fuel your body: take a few bites of protein to stay on schedule.
- Baby warmer trays or warming plates can be used to keep food warm while you are (slowly) eating your meal.

**Helpful  
Tips**

- If dining out and the entrée is the typical portion, plan on bringing most of the meal home in a “to-go” container.
- Continue your food records. Write down all of the food you eat and the fluid you drink. Food records are critical to ensure that you are eating enough protein.
- It’s important to eat the recommended dietary protein your body needs.
- Do not skip meals. Stay on an eating schedule; never going longer than 4 - 5 waking hours without food.

#### **AVOID:**

- **All processed carbohydrates, baked products, and grains, starchy foods such as breads, noodles, crackers, rice, cakes and bagels.** They expand in your stomach and may cause pain or blockage. They can also be easy to overeat
- **No potted meats.** They are high in fat and low in protein.
- Fatty and fried foods, dry foods, high sugar, grains and refined carbs (bread, crackers, rice, cookies, etc.). They can cause dumping and have you relapse into unhealthy eating habits from the past.
- Popcorn and nuts.
- Grazing or nibbling. This will lead to weight gain.
- Do not eat coconut flakes/bits – they can easily create a blockage.
- Trying any new proteins or foods at work, restaurants, or outings. Unknown food preparations are risky. It may lead to dumping.



## Stage 4 - SOFT FOOD SAMPLE Meal Plan

- Remember to separate your fluids from your meals & snacks. Stop drinking 15 minutes prior to meal and then wait 60 minutes after meal before drinking again.
- Protein shakes no longer count toward your total fluids intake.

Time	Food or beverage (20 minutes for meals)	Protein grams	Calorie s	Time (minutes)	Notes
6:10 am	4 oz. water	0	0	20	
7:15 am	½ large egg 1 chicken sausage link (sweet Italian)  <i>1 calcium citrate chewy bite</i>	3 11	35 100  15	22	Couldn't finish egg, liked the chicken sausage  <i>1 svg. calcium</i>
8:30 am	8 oz. chamomile tea with lemon & stevia	0	0	60	walked on break 10 minutes
10:00 am	16.9 oz. Propel water	0	0	45	
11:30 am	2 oz. deli turkey 1 oz LF string cheese 1 Tbsp mustard  <i>1 calcium citrate chewy bite</i>	10 7 0	60 85 10  15	18	walked at lunch 15 minutes  <i>1 svg. calcium</i>
1:00 pm	16 oz. water with stevia water drops	0	0	1 hour	
3:30 pm	½ protein shake (4.5 oz)  <i>2 chewable multivitamin w/iron 1 chewable probiotic 1 Vitamin B12, 500 mcg</i>	15	80  35	15	<i>1 svg. multivitamin 1 sv.g probiotic 1 svg. Vit B12</i>
5:15 pm	10 oz. water	0	0	30	
6:00 pm	2 oz. garlic chicken ½ cup mushrooms  <i>1 calcium citrate chewy bite</i>	14 1.5	96 22  15	25	<i>1 svg. calcium</i>
7:20 pm	4 oz. water	0	0	30	
<b>Totals</b>	<b>Total fluids: 59 oz. Exercised: 15 minutes Vits/Supps: all in</b>	<b>63.5 grams</b>	<b>455 calories</b>	<b>Meals: 20 minutes</b>	

# Stage 5 – BARIATRIC Long Term

**Duration: Lifetime**

## GOALS

**Months 2 – 6:** learn what proteins and complex carbohydrates you can tolerate; continuing to try new foods. Reinforce new eating and drinking habits. Create new foods, meals and menus that reflect foods you tolerate well and enjoy. Reinforce the healthy habits needed to lose the weight and keep it off.

**Month 6 – lifetime:** you should be hitting your stride with your new eating and health habits. If your weight loss has stalled, make sure you are keep food records and following the program guidelines.

- **Bariatric diet:** is much like the Paleo diet. Always eat lean proteins first and then complex carbohydrates coming from veggies, fruits and legumes.
- **Protein: 60 - 80+ grams/day.** Protein first - always! Continue to slowly introduce new, lean proteins into your diet to allow your stomach to adjust, provide variety, and overall enjoyment.
- **Calories: 500 - 800+ calories/day for as long as you can.** Over time your calories will increase naturally as you heal and are able to tolerate a wider variety of foods and eat larger amounts.
- **Be aware** that weight loss often stops when calories consistently exceed 1000-1200 for women and 1400-1600 for men. Stay <1000, and even better, under 800 calories per day with your protein grams a minimum of 60+/day for continued weight loss, for as long as you can.
- **Number of calories to maintain weight:** the caloric intake you can consume and maintain your weight will depend on many variables but a key factor is the amount and types of exercise you integrate into your daily life.
- **Number of meals:** 3 + 1-2 snack(s), as needed. Eat at regular meal times. Never go longer than 4 - 5 waking hours without eating. Eat away from distraction (desk, TV). Planning and preparing your meals is essential to ensure you meet your nutritional needs and avoid problem foods.
- **Length of meals:** meals should take a full 20 minutes to finish but no more than 30 minutes.
- **Mindfulness:** eat or drink very slowly. You may be able to take slightly bigger bites and sips at this point but always be mindful when eating or drinking. Listen to your body to determine your last sip/bite “threshold.”
- **Total fluids:** 64+ oz. /day. Non-caloric, non-carbonated, non-caffeinated beverages. No straws.  
**Caffeine:** you may introduce coffee/tea back in your diet; limit to one cup a day. Decaf is preferred. Avoid high fat/sugar creamers. You may be able to take bigger sips but avoid gulping.
- **Separate Fluids from Meals:** you may drink up to your meals now but always separate your

fluids from your meals/snacks and wait 60 minutes after eating before resuming fluids.

- **Food Records:** keep daily. Records keep you on track and help you find the foods that work best in your body. Remember that success leaves clues. Discover your secrets to success.

**Food records:**

- Determine if you are meeting your nutritional needs.
- Pin point the proteins/foods your new stomach tolerates well and the ones that cause problems/distress.
- Show you how certain foods affect your energy level, fullness, and even moods.
- Identify emotional or situational triggers.
- Stay out of denial. Stop fooling yourself with the idea that “If I don’t write it down, it didn’t happen.” Your body always counts calories.
- Create menus and meal plans. When stuck in a “food rut” you can review your records and find some favorites you’ve forgotten.
- Give you immediate feedback on how your choices help or hinder your progress.
- Identify and celebrate your milestones.

The Essentials	Advanced
time of day	hunger and fullness levels: before & after meal
food item(s) and amount (oz., Tbsp., cup)	mood/feelings (happy, bored, depressed)
protein grams	location of meal (work desk, in front of TV, car)
calories	who you dine with (alone, coworker, family)
fluids – type & ounces	<b>post op:</b> challenges, nausea, vomiting, or pain
list of vitamins & supplements taken	food intolerances
exercise - type and minutes	foods well tolerated, filling, & satisfying

**Websites/Phone Apps:**

- [www.baritastic.com](http://www.baritastic.com)
- [www.supertracker.usda.gov](http://www.supertracker.usda.gov)
- [www.CalorieKing.com](http://www.CalorieKing.com)
- [www.MyFitnessPal.com](http://www.MyFitnessPal.com)
- [www.FitDay.com](http://www.FitDay.com)
- [www.Loselt.com](http://www.Loselt.com)
- [www.SparkPeople.com](http://www.SparkPeople.com)

- **Vitamins and Supplements:** take daily. If you are comfortable, you can switch to regular tablet vitamins though be aware of dosages. Calcium citrate is always 2 large pills for one dose. Separate the multivitamin with iron and calcium citrate by 2 hours. **NO GUMMY**

**SUPPLEMENTS OF ANY KIND.**

Taking the bariatric supplements daily is a lifetime commitment to ensure optimal health and prevent any deficiencies.

Vitamins/Minerals	Gastric Bypass	Sleeve Gastrectomy
Multivitamin with iron (chewable or liquid)	1 svg/day	1 svg/day
Calcium Citrate with Vitamin D3 (chewable or liquid)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)
Probiotic	1 svgs daily	1 svg daily
Vitamin B12	1 svg/day (500 micrograms)	NA

**Exercise:** 30 - 45 minutes a day, 5 - 7 days a week and work up to a total of 300 minutes of exercise per week. After 2 months post op, add in strength training, at least 90 minutes per week. Additionally, stretching and balance training helps improve performance of everyday activities and assists with posture, minimizing stress and maximizes the strength of all joint movements.

- **Strength training** helps to preserve and build muscle mass. The more muscle you have, the more calories you burn.
- **Stretching** keeps you limber and can help prevent injuries.

**TIPS**

- The bariatric diet is much like a paleo diet: lean meats with complex carbohydrates (i.e. vegetables, fruits & legumes) that provide volume, satiety, and gradually empty from your stomach.
- Integrate and reinforce the healthy habits that will keep healthy and maintaining your weight.
- **Vegetables:** You should now focus on eating high-fiber vegetables. Avoid vegetables like beets, carrots, and onions.
- **Fruits:** you should focus on eating more of those fruits, including avocados, berries, cantaloupe, and citrus fruits.
- Make a list of the proteins and fruits and vegetables you tolerate well and post it to refer to often.
- Create a menu of meals that you enjoy to make meal planning and shopping easier for you.
- The first 3 months post op were a time for healing, allowing your new stomach to adjust to foods and establishing new eating/drinking habits required of a bariatric patient.
- From 3 – 6 months after surgery, you are reinforcing the healthy habits needed to lose the weight and keep it off.
- **Remember that obesity treatment is a lifelong process. The habits you build and maintain will determine your level of success.**

## Stage 5 – Ongoing Bariatric Diet - *SAMPLE* Meal Plan

Time	Food or beverage (20 minutes for meals)	Protein grams	Calorie s	Time (minutes)	Challenges/Notes
7:30 am	¾ c. cottage cheese 2 Tbsp. blueberries  <i>1 calcium citrate chewy bite</i>	21 0	145 10  15	18	<i>1 svg calcium</i>
8:50 am	12 oz decaf coffee with Splenda	0	0	30	
11:00 am	16.9 oz. Vitamin Water Zero	0	0	75	
12:00 pm	3 oz. salmon 1 cup spinach ¼ cup cucumber & tomato 2 Tbsp balsamic vinegar  <i>1 calcium citrate chewy bite</i>	21 1 1 0	123 7 17 28  15	25	<b>Walked 20 minutes at lunch</b>  <i>1 svg calcium</i>
1:30 pm	16.9 oz. bottle Vitamin Water Zero	0	0	1 hour	
3:30 pm	1 oz string cheese 5 grapes  <i>2 chewable Multivitamin w/iron 1 chewable Probiotic 500 mcg Vitamin B12</i>	7 0	90 15  35	17	<i>1 svg. multivitamin 1 sv.g probiotic 1 svg. Vit B12</i>
5:00 pm	12 oz water infused with pineapple & mint	0	0	40	
6:00 pm	3 oz. herbed pork loin 2 oz sweet potato  <i>1 calcium citrate chewy bite</i>	24 0	120 55  15	25	<i>1 svg calcium</i>
7:30 pm	4 oz. water with Mio drops	0	0	30	<b>Strength training, 30 minutes</b>
<b>Totals</b>	<b>Total fluids: 62 oz. Exercised: 50 minutes Vits/Supps: all in</b>	<b>75 grams</b>	<b>690 calorie s</b>	<b>Meals: 21 minutes</b>	

# Protein 101

## Why Protein is Important

- Protein was named after a Greek word *proteios*, meaning “of prime importance.”
- It is undeniably *the most important nutrient* in the bariatric diet.
- Protein is a part of every cell in your in body and these proteins are continually being broken down and replenished.
- Since the body doesn't store protein for later use, eating enough high quality protein is required, otherwise the body will suffer.
- When protein intake is insufficient, the body breaks down lean body mass to offset for poor nutrition intake.
- While loss of lean body mass is inevitable after weight loss surgery due to low calorie intake, you can minimize this by taking in sufficient high-quality protein daily.

## Principle Roles of Protein in the Body

- **Protein assists in proper wound healing after bariatric surgery.**
  - It helps to build and repair body tissues including skin, muscle and major organs.
- **Protein helps your body burn fat instead of muscle for a healthier weight loss.**
  - After bariatric surgery, your calorie intake is reduced drastically.
  - Unfortunately, the human body tends to preserve fat stores while using lean muscle mass as energy before it taps into fat stores for energy.
  - When you take in sufficient protein every day, you will spare and preserve your muscle tissue, which forces your metabolism to utilize fat for its energy.
  - This is often referred to as "protein sparing."
- **Protein supports your metabolism so you lose weight faster.**
  - The more muscle you have on your body, the *higher your metabolism* and the more fat calories your body will burn, even while at rest.

- **Protein helps keep you fuller, longer.**
  - Clinical studies show that high-protein diets increase satiety and decrease hunger compared with high-fat or high-carbohydrate diets.
  - Right after surgery, the majority of patients will not be hungry and may have to be reminded to eat on a regular schedule.
  - Over time, hunger & appetite can return.
  - Building a habit of eating protein first will keep you full for longer periods of time, helping you resist the snacking/grazing temptation between meals.
- Protein helps keep your hair, skin, and nails healthy.
- **Protein helps form hormones, enzymes, and immune system antibodies to help your body function properly.**

### Protein Goals

- Protein needs vary with each individual based on their age, sex, lean muscle mass, daily exercise, and overall health.
- Immediately after surgery the protein goal will range from 40 - 60 grams per day as you are adjusting to a small stomach and a new way of eating.
- Once you have transitioned to regular food, the goal is 60 - 80 grams of high quality protein daily.

### Protein Shakes & Powders

- Protein shake and powders are heavily utilized in the immediate months post op to promote wound healing and minimize loss of lean muscle mass.
- Liquid protein supplements such as shakes and powders are the easiest to take in right after surgery. After the first 2-3 months you will incorporate traditional proteins and foods into your diet.
- Many patients continue to use protein shake as a convenient source of protein and nutrition.
- They are great for a quick and easy breakfast, snack, or as a backup plan when running late and have no time for a regular meal.

### Liquid vs. Solid Proteins

- As you move into Stage 4 and beyond, you will incorporate more solid proteins into your diet.
- Seek out sources with more “staying power,” that will keep you fuller for longer periods of time. Liquid or soft forms, such as protein shakes, yogurt, or cottage cheese, may not keep you satiated the way a piece of chicken or eggs will.

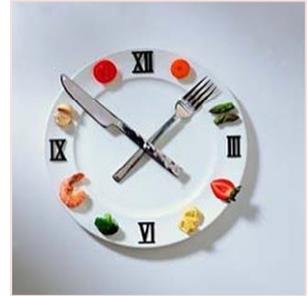


### For example:

- 4 ½ ounces of chicken and a Premier protein shake both have 30 grams of protein.
- Yet the chicken will keep you fuller for a longer period of time than the liquid protein shake.
- These liquid and softer proteins are still great sources of protein; simply notice if they continue to provide you with the fullness/satiety you want.
- You may need to add protein powder or other foods such as fruit to help fill you up.

### **Spacing of Your Proteins**

- Since the body cannot absorb more than about 30 grams at once, you will need to take in protein throughout the day, across multiple meals or healthy snacks.
- Foods that are high in protein should always be eaten first during meals, in case you feel full quickly and can't finish your meal.



### **Proceed with Caution**

- For many patients, beef, pork, lamb, and chicken breast can be particularly difficult to digest; though chicken thigh is generally well tolerated.
- You may want to wait to introduce these proteins until at least 3 months after surgery.
- Try new proteins on the weekend or evenings in case they have a negative result.
- Be sure to choose tender cuts and avoid the higher fat (therefore higher calorie) selections.

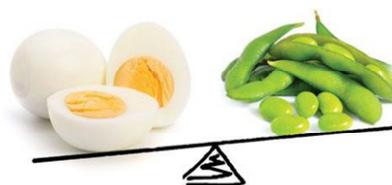
### **Complete vs. Incomplete Proteins**

- Proteins and amino acids are used for almost every metabolic process in the body.
- Amino acids are the building blocks of protein.
- For optimal health, there are nine essential amino acids we need from dietary sources.
- However, not all proteins are alike. As a bariatric patient your primary goal is to get high quality protein sources in to meet your nutritional needs.
- Many people get confused as to what types of proteins they should eat and what is considered a good protein source.

### **Complete proteins**

Animal-based proteins are known as complete proteins because they contain all nine of the essential amino acids your body needs to function properly.

- Beef
- Poultry
- Pork
- Seafood & Fish
- Eggs
- Dairy



## Incomplete proteins

Plant-based proteins are considered to be incomplete proteins, as they lack one or more of the essential amino acids that your body needs.

- Beans (i.e. pinto, kidney, garbanzo)
- Lentils & split pea
- Nuts & seeds
- Grains & rice
- Vegetables

## Complimentary proteins

Plant-based proteins provide some of the amino acids but they need to be combined with other foods (i.e. beans with rice, whole wheat toast with peanut butter) to make a complete protein; known as complimentary proteins.

- After bariatric surgery this is not a good option. Here's why: plant source proteins are naturally higher in carbohydrates or fat and calories while lower in protein than their animal protein counter parts.

**For example:**

Food	Amount	Calorie s	Protein grams
Beans & Rice	1 cup	360	12
Peanut butter	1 <u>level</u> Tbsp.	95	4
Nonfat refried beans	1 cup	180	12
Walnuts	1 cup	840	20
Chicken	1 cup	230	30

- The bariatric diet is similar to a Paleo diet, consisting of mainly protein with carbohydrates coming from vegetables and fruits and legumes.
- Carbohydrates such as rice, breads, crackers, noodles, and cereal need to be avoided post op.
- These carbs are not well tolerated after surgery as they can swell up in your stomach and can cause pain and dumping syndrome.
- Also, the calories from these carbohydrates can add up quickly, push out protein rich foods, and for many patients, make it easy to slip back into old unhealthy grazing habits.
- Therefore food combining to create a complete protein is *not* the best option.
- Eat complex carbohydrates such as vegetables, fruits, and legumes to maximize nutrition and satiety.

## Vegetarians

- Following a vegetarian diet is possible after bariatric surgery, though it does take more effort and usually is accompanied with a higher caloric intake.
- Plant-based proteins, other than soy, need to be combined with other sources to meet your nutritional needs and are naturally higher in carbohydrate and calories, and not always well tolerated.

## Soy

- This legume is the exception to the plant-based protein rule.
- Soy contains all the essential amino acids necessary for proper nutrition and comes in a wide variety of products, such as tofu, tempeh, and soybeans.
- Soybeans are 250 calories and 22 grams of protein per cup.



## Lupini beans



- These legumes are one the highest sources of plant proteins available, only second to soybeans, with most of the essential amino acids.
- These beans have a firm texture and are typically soaked in brine for a great salty snack.
- Lupini beans are 200 calories and 26 grams of protein per cup.

## Foods Commonly Perceived as High Protein

- Legumes, nuts and seeds are often viewed as high quality proteins but they are comprised mainly of carbohydrate or fat and lacking certain amino acids to make a complete protein.
- While legumes contain a small amount of protein, it's best to view them as "bonus protein grams" but not a main source.
- Dairy products are an excellent source of protein when you select the low-fat or nonfat versions, such as cottage cheese and yogurt.
- Cheese is high in saturated fat, known to raise your "bad" cholesterol.
- Use cheese moderately as a way to add flavor, rather than a main protein source.
- Eating legumes, nuts, seeds and dairy products can be a part of a healthy diet; providing flavor, texture, and a variety of nutrients with a few extra protein grams. Eat them mindfully.

## Legumes:

- Legumes include beans, peas and lentils. They are an excellent source of complex carbohydrates and provide a wide range of essential nutrients including dietary fiber, minerals, vitamins, and some protein.
- **Nutritional composition: 27% protein, 70% carbohydrates, and 3% fat.**
- Average per cup: 240 calories per cup and 15 grams of protein.
- To meet your protein needs post op, you can use soy products or add a protein-rich powder to nonfat refried beans, lentil or bean soups.
- Think of legumes as a great complex carbs with “bonus” grams of protein.



## Nuts & Seeds:

- Nuts and seeds are rich sources of energy/calories, heart-healthy fats, fiber, plant protein, vitamins & minerals, and phytochemicals.
- **Nutritional composition: 13% protein, 15% carbohydrate, 72% fat.**
- Average per cup: 800 calories and 25 grams of protein.
- While nuts and seeds are healthy for your heart, they can be detrimental to your weight as the calories can add quickly.
- Use nuts and seeds to enhance the flavor and texture a meal. Eat sparingly.



## Dairy:

- Cheese is a rich source of many nutrients such as calcium, phosphorus, zinc, vitamin A and vitamin B12.
- **Nutritional composition: 23% protein, 6 % carbohydrate, and 70% fat.**
- Average cheese per ounce is 100 calories, 7 grams protein & 6 grams saturated fat.
- Select the nonfat or low-fat dairy options.



## Choosing Your Proteins

- The calories from the protein sources vary greatly, depending on the fat and carbohydrate content.

- When choosing protein, look for sources high in protein grams and low in calories to maximize nutrition and keep calories low for weight loss and maintenance.
- A guideline to make this selection easier is: a **minimum of 10 grams of protein for every 100 calories. The higher the protein grams and lower the calories, the better.**
- This formula will help you assess the quality of the protein source quickly to determine if it is a low, medium or high quality protein source.

For example:

Food	Amount	Calories	Protein Grams	Quality
Protein shake	1 shake	160	30	high
Chicken	1 ounce	50	9	high
Cottage cheese - 1%	1 cup	160	28	high
Halibut	1 ounce	40	8	high
String cheese	1 ounce	80	8	medium
Ribeye	1 ounce	80	8	medium
Chicken sausage	1 ounce	50	5	medium
Mozzarella cheese	1 ounce	85	6	medium-low
Almonds	1 ounce	165	6	low
Peanut butter	1 <u>level</u> tablespoon	95	4	low
Black beans	1 cup	220	15	low
Cheddar cheese	1 ounce	115	7	low

## Daily Caloric Intake

- The 10% guideline also applies to your *daily calories*.
- For every 100 calories you eat, a minimum 10 grams should be coming from lean, high quality protein sources; up to the 60 grams/day.
- This guideline is designed to keep you focused in receiving enough protein each day while keeping your calories low to maximize your weight loss.
- Weight loss may slow down or stop once daily calories are 1000 or more per day depending on the individual.

For example:

Average Calories per Day	Average Protein Grams per Day	High Protein to Low Calorie ratio?
520	62	yes
925	48	no
810	65	yes
600	31	no
1250	83	yes

## Protein Needs

- Your protein needs will vary with each individual though the general goal is 60 - 80 grams of high quality protein daily.
- Protein needs to be spread out throughout the day with your meals and snack(s).
- Add up the protein: 15 - 20 grams per meal/snack x 4 meals = 60 to 80 grams of protein/day

For example:

Meal	Food	Amount	Calories	Protein Grams
Breakfast	1% cottage cheese and	¾ cup	120	21
Lunch	Deli ham &	3 oz.	90	15
	LF string cheese	1 oz.	70	8
Snack	PB2 and	2 Tbsp.	45	5
Dinner	Chicken thigh	3 oz.	180	22
	Broccoli	½ cup	25	2
		<b>Total</b>	<b>605</b>	<b>73</b>

## Tracking Protein Intake

### Food records

- Keeping a food journal is essential to track your progress and ensure you are meeting your required protein needs.
- Records will also help you track which foods are best tolerated and which proteins to avoid.
- Food records include: the time, food, amount, calories, and protein grams, any intolerances, and hunger/fullness levels.
- It's also helpful to note your mood/feelings, location, and who you are eating with.
- Keeping a food journal allows you to review your progress and assess the best proteins, foods, and amounts to keep you fueled, full and satisfied.

### Weigh and measure

- Weigh and measure your proteins on a kitchen scale often to ensure accuracy of your protein intake.
- Many patients overestimate their daily protein grams when they rely on “eye-balling” their protein quantity.
- Using a scale and keeping food records are critical tools for success.



If you find you are getting hungry quickly after a meal, there are several factors that may explain this:

- The carbs you are eating are quickly utilized burned up, leaving you hungrier faster.
- The protein source was in a liquid or soft form (i.e. protein shake or yogurt).
- You didn't eat enough protein grams at the meal (i.e. 1 oz. chicken vs. 3 oz. chicken)
- You didn't eat enough quantity of protein with complex carbs to last very long.
- You've gone too long between meals and need to refuel your body.

### Tips:

- ✓ Eat proteins first and choose high quality protein sources.
- ✓ Have the majority of your carbohydrates come from vegetables and fruits.
- ✓ Eat at regular meal times, do not skip meals.
- ✓ Track the meals that provide you the most satiety and enjoyment.
- ✓ Continue to expand the variety of proteins and foods you eat to increase nutrition and enhance enjoyment.

## Protein Meal and Snack Ideas (Stage 5 and Beyond)

- To keep meals simple and your protein intake high, create a list of 2 - 4 menu ideas for each meal that you enjoy, are high protein, and well tolerated.
- This approach provides structure, standard items on your grocery list and enough variety to provide proper nutrition and optimum enjoyment.

### Breakfast:

- Cottage cheese or yogurt with fruit
- Egg & veggie scramble
- Protein shake
- Egg bites - eggs, veggies, low-fat cheese and turkey bacon, ham or chicken sausage baked up in muffin tins for a quick and easy breakfast.
- Chicken sausage (Flavors: garlic herb, sweet Italian, Andouille, pesto, hot Italian, etc.)
- Veggie-loaded breakfast casserole: eggs, spinach, mushrooms, onion, bell peppers, cheese. Add a chicken sausage for extra flavor & protein.
- Ham, egg and cheese roll ups – with spinach and tomato.



### Lunch:

- Deli meat (ham, chicken, turkey, or lean roast beef) wrapped around string cheese. Dip in gourmet mustard.
- Soups- a flavorful way to get in your protein with lots of vegetables (i.e. Chicken Fiesta soup, Indian Stew, Chunky Turkey Vegetable soup).
- Small green salad topped with shredded chicken, shrimp or hard-boiled egg.
- Leftovers from dinner of lean meat and veggies.
- Mini meatloaf – bake in a muffin tin for just-right-sized meals.
- Garlic parmesan chicken thighs.
- Beef & Broccoli Stir fry with Cauliflower Rice
- Buffalo chicken salad: chicken, Cajun hot sauce, baby spinach, cherry tomatoes, onions, cilantro cottage cheese ranch dressing.



## Dinner:

- Chicken sausage & mushroom pizza bowls - with marinara, low fat mozzarella cheese and Italian seasoning blend.
- Ground turkey taco wraps - with pinto or black beans, low fat cheese, tomatoes, onion, cilantro and iceberg lettuce.
- Baked salmon with avocado salsa and broccoli.
- Grilled halibut with garlic cilantro sauce and asparagus.
- Stuffed bell peppers - lean ground turkey or beef, black beans, spices and topped with low-fat cheese and green onions.
- Meat & veggie spaghetti sauce over zucchini or spaghetti squash.
- Buffalo Chicken Zucchini Boats: chicken, Monterey jack cheese, cottage cheese ranch dressing, zucchini, and hot sauce. Optional garnish: sliced red onion, fresh cilantro, avocado slices.
- Ground Beef Enchilada Zucchini Boats: ground beef, taco seasoning, onion, zucchini, enchilada sauce, cheese, & cilantro.



## Dessert:

- High protein pudding: nonfat plain Greek yogurt, chocolate protein powder, stevia drops, milk. If you want the consistency of ice cream, freeze it for minimum of 1 hour.
- Low fat ricotta cheese whipped with stevia and fruit. Freeze for a minimum of one hour.
- Apple slices dipped in PB2.



## Finding recipes

- There are many online resources to find new high protein recipes and ideas.
- Searching for bariatric friendly or Paleo recipes on bariatric support sites, Google, or Pinterest can be a great starting place.
- Remember that not all recipes labeled as bariatric-friendly will be appropriate for you to make or eat.
- Be sure you choose ones that are in alignment with your bariatric team's recommended dietary guidelines.

## Protein Chart

This list of protein sources is based on average calories per ounce, cup, or level tablespoon.

Both calories and protein grams were rounded up or down for ease of use.

### BEEF

Food	Calories per oz.	Protein grams
Bologna	90	3
Beef jerky	80	15
Beef Top Round	50	9
Brisket	90	7
Flank	55	8
Ground beef (93% lean)	40	6
(85% lean)	70	8
(80% lean)	70	7
Hot dog	90	3
Pastrami	40	6
Pot Roast	90	9
Prime Rib	70	5
Ribeye	70	7
Ribs	100	6
Roast Beef	50	8
Salami - soft	75	4
Salami - hard	110	6
Shank	60	10
Skirt steak	65	7
Summer Sausage	100	5
T-bone	50	7
Top Loin (NY Strip)	65	6



### DAIRY - low fat options

Food	Calories per cup	Protein grams
Cottage cheese		
1%	160	28
2%	200	28
4%	220	26
Greek yogurt: NF, plain	135	25
Yogurt: NF, plain	120	14



### DELI

Food	Calories per oz.	Protein grams
Bologna	90	3
Canadian bacon	30	5
Chicken	30	5
Corned Beef	30	5
Ham	30	5
Liverwurst	90	4
Pancetta	100	4
Pastrami	40	6
Pepperoni	150	6
Prosciutto	55	7
Roast beef	30	5
Salami	70	4
Turkey	30	5

## FISH & SEAFOOD

Food	Calories per oz.	Protein grams
Ahi	30	7
Bass	35	6
Catfish	30	5
Clams	40	7
Cod	30	7
Crab	20	5
Halibut	40	8
Lobster	25	2
Mussels	50	7
Oysters	25	3
Salmon	45	6
Smoked salmon jerky	90	15
Scallops	30	7
Shrimp	30	6
Tilapia	35	7
Tuna fish (can or pouch)	35	7



## POULTRY

Food	Calories per oz.	Protein
<i>Chicken</i>		
breast	50	9
drumstick	50	8
thigh	60	7
wing	60	9
ground	55	6
Chicken sausage	50	5
Egg (large)	70	6
Cornish game hen	40	11

## POULTRY – continued

Food	Calories per oz.	Protein grams
<i>Turkey</i>		
breast	40	9
drumstick	45	8
thigh	50	5
wing	50	9
ground	65	6
turkey bacon	65	6
turkey jerky	100	19
Duck	55	6
Goose	65	8
Goose liver pate	130	3
Pheasant	70	9

## PORK

Food	Calories per oz.	Protein grams
Bacon	150	11
Blood sausage	105	4
Bologna	70	4
Bratwurst	90	5
Canadian bacon	50	7
Chorizo	130	7
Ground pork	80	7
Ham steak	35	5
Pancetta	100	4
Pepperoni	150	6
Pork chops	55	9
Pork liverwurst	90	4
Pork loin	60	8
Pork roast	55	8
Pork ribs	75	8
Pork sausage – bulk, link or patty	100	6
Pork & beef salami	95	4
Prosciutto	55	7

## SOY

Food	Calories per cup	Protein grams
soy beans - dry roasted	520	56
Soybeans- shelled	250	22
Tofu – firm	175	21
Tofu - soft	150	16
Tempeh	350	31



## DAIRY & PLANT-BASED PROTEINS

Plant-based and higher fat dairy proteins are typically higher calorie and lower in protein.

Choose wisely.

## CHEESE

Food	Calories per oz.	Protein grams
American	90	5
Asiago	100	6
Bleu	100	6
Cheddar	115	7
Chevre	60	4
Cream cheese - regular	100	2
Cream cheese - low fat	65	3
Cream cheese - fat free	25	4
Feta	75	4
Gouda	100	7
Havarti	110	7
Laughing Cow – regular	70	3
Laughing Cow – light	45	3
Mascarpone	125	2
Monterey Jack	100	7



## CHEESE – continued

Food	Calories per oz.	Protein grams
Mozzarella - whole milk	85	6
Parmesan	120	11
Pepper Jack	100	7
Provolone	100	7
Ricotta - light	25	2
Ricotta - part skim	40	3
Ricotta - whole	50	3
Swiss	105	7

## LEGUMES

Food	Calories per cup	Protein grams
<i>Beans</i>		
Adzuki	295	17
Black	220	15
Cannellini	180	14
Fava	180	14
Garbanzo	210	11
Great Northern	300	19
Lima	190	12
Lupini beans	200	26
Navy	295	20
Pinto	205	12
NF refried beans	260	18
Red kidney	220	16
<i>Peas</i>		
Black-eyed	185	11
Split peas	230	16
<i>Lentils</i>	230	18
<i>Soybeans</i>	250	22

## NUTS & SEEDS

Food	Calories per cup	Protein grams
<i>Nuts</i>		
Almonds	825	30
Brazil	870	19
Cashew	905	27
Hazelnut	840	16
Macadamia	920	8
Peanuts	850	35
Pecans	800	12
Pine nuts	800	16
pistachios	680	24
walnuts	800	20
<i>Seeds</i>		
Chia	960	48
Flax	745	32
Hemp	905	53
Poppy	735	26
Pumpkin	680	36
Sesame	820	26
Sunflower	760	32



## NUT BUTTERS

Food	Calories per <u>level</u> Tbsp.	Protein grams
Almond	100	4
Brazil	95	2
Cashew	100	2
Flax	95	2
Hazelnut	90	2
Hemp seed	90	5
Macadamia	90	0
PB2 (2Tbsp)	45	5
Peanut	95	4
Pecan	125	2
Pistachio	85	3
Pumpkin seed	75	3
Sesame seed	90	3
Soynut	95	4
Sunflower seed	90	3
Walnut	100	3



## Soy



- Soy is rich in vitamins, minerals, calcium, iron, fiber, phytochemicals and protein.
- Studies have found soy can help prevent and improve some of today's top health issues such as heart disease, high blood pressure, osteoporosis, certain cancers; and menopausal symptoms like hot flashes, night sweats, and insomnia.
- Soy foods are popular with vegetarians and vegans who often rely on them for their main source of protein; as soy contains all of the essential amino acids.
- Soy is very versatile and can be eaten as whole beans (edamame) or processed as tofu, tempeh, soy yogurt, miso, soy milk and other soy-based products.

Product	Amount	Calorie	Protein Grams
Soy beans: shelled	1 cup	250	22
Soy nuts: dry roasted	1 cup	520	56
Soy cheese	1 oz.	70	7
Soy milk	1 cup	90	6
Soy powdered protein: unflavored	¼ cup	70	17
Soy yogurt	1 cup	140	6
Tempeh	1 oz.	60	6
Tofu: firm	1 oz.	30	3
soft	1 oz.	20	2
silken	1 oz.	15	1.5

### Types of Tofu

- **Firm:** is dense and can be cubed and stir-fried, grilled, scrambled, pickled, smoked, baked, barbecued or served in soups. Firm tofu is higher in protein, fats and calcium than other types of tofu.
- **Soft:** is better suited for recipes in which tofu needs to be blended.
- **Silken:** has a creamy structure and is also used in blended dishes.

## Lupini Beans

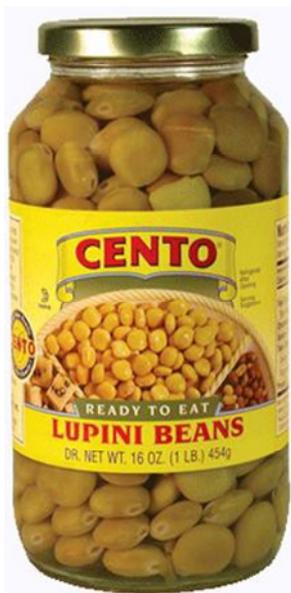
- Lupini beans are large, flat, round, yellowish seeds in the legume family, native to Italy.
- They are traditionally eaten as a pickled snack food, in the Mediterranean basin and Latin America.
- Lupini are commonly sold in jars; brined like pickles or olives.
- They have a thick outer skin that needs to be torn to get to the bean; though you can eat the skins too.
- Highly skilled lupini eaters learn to split the skin by rubbing the bean between forefinger and thumb; popping it directly into their mouth.
- They are a nutritious snack when you want something salty and “crunchy” to eat.

### Lupini bean facts:

- One of the highest sources of plant proteins available after soybeans
- The bean skin consists mainly of cellulose (insoluble bran fiber)
- Rich in antioxidants and amino acids, especially arginine
- Have a low glycemic index; great for diabetics
- Easy to digest and high bioavailability
- High in vitamins, especially B complex, and minerals
- Low in fat, cholesterol, and is gluten free
- Probiotic food, promoting the growth and nurturing of “good” gut bacteria

### Nutritional composition:

- 45% protein
- 34% carbohydrates
- 21% fat



<b>Nutrition Facts</b>	
Serving Size 1 cup	
Amount Per Serving	
<b>Calories</b> 197	Calories from Fat 40
% Daily Value*	
<b>Total Fat</b> 4.8g	<b>7%</b>
Saturated Fat 0.6g	<b>3%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 6.6mg	<b>0%</b>
<b>Potassium</b> 406.7mg	<b>12%</b>
<b>Total Carbohydrate</b> 16.4g	<b>5%</b>
Dietary Fiber 4.6g	<b>19%</b>
Sugars 0g	
<b>Protein</b> 25.8g	<b>52%</b>
Vitamin A 0%	Vitamin C 3%
Calcium 8%	Iron 11%
Thiamin 15%	Riboflavin 5%
Vitamin B6 1%	Niacin 4%
Magnesium 22%	Phosphorus 21%
Zinc 15%	Copper 19%
Pantothenic Acid 3%	

\* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie intake.

## Cooking Lupini Beans

These delicious beans are a healthy protein snack but they do require a bit of patience to prepare.

1. Pick over beans to remove any debris.
2. Put the beans in the pot of water and soak overnight for 24 hours. Be sure that the water covers the beans totally. After twelve hours, check on the beans to make certain they're completely immersed and add more water if required.
3. After the 24 hour period of soaking, drain the water and refill with fresh water covering the beans completely.
4. Bring the beans into a boil as well as simmer for 1 ½ hours. Add more water if needed.
5. Drain, rinse well, and cover with salted water (about one tablespoon per quart of water).
6. Allow them to cool and then refrigerate.
7. Repeat this process twice a day for 7 days or until the soaking brine is no longer bitter.
8. Store the beans in air-tight container within the fridge. They'll keep for about 6+ weeks.



### Where to Buy

Dried: Amazon, Nuts.com

Prepared: Amazon, Walmart.com, Luckyvitamin.com

# FAQ - Frequently Asked Questions

## How will I know when I am full?

- Your tiny stomach won't be able to hold much, so initially you may only be able to tolerate 2 - 3 teaspoons of food at one time.
- You may have trouble knowing when you are comfortably full. Take dime-sized bites or sips so if you eat too much it's a very small amount and less likely to cause distress.
- **Meals should take the full 20 minutes to complete** (but no longer than 30). Eating slowly allows you the time to determine your "last bite/sip threshold."
- Nausea may be your first indication of fullness. Don't let this alarm you.
- You may feel pressure in the center of your stomach or pain in the shoulder area or upper chest when you are full.
- It will take time for your body to adjust to the stomach's smaller size and return to a normal "full" feeling.
- Eat mindfully, with intention and attention (awareness).

## What is the Honeymoon period?

- The time period you have no hunger. The length of time this occurs varies widely; between weeks, months to years.
- Often patients decide to skip meals because they are not hungry or have no appetite. They deprive themselves of their nutritional needs.
- You will need to plan your meals to fuel your body throughout the day to meet your nutrition goals and have a successful weight loss.

## If I get upset and want to eat, what will I do?

- Managing stress is important to your overall health and well-being.
- Try different ways to handle your stress by talking with someone, exercising, reading or enjoying a hobby.
- Integrate healthy stress management daily habits, keeping your stress lower on a daily basis helps keep the stress under control.
- You may consider talking with a mental health professional if you feel you need additional assistance in dealing with stress or learning how to constructively meet your emotional needs.



## What about carbs?

There is no definitive recommendation for daily grams of carbohydrate (aka “carbs”) after bariatric surgery. It’s more important to focus on *the type* of carbohydrate rather than the quantity of grams.



### Complex carbohydrates:

- Vegetables
- Fruits
- legumes

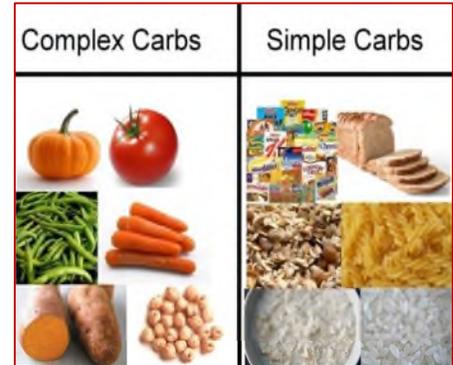
Complex carbs provide vital nutrients and are digested slowly; supplying a steady release of glucose in your blood stream.

When combined with protein, you will stay fuller, longer. Complex carbs from vegetables, fruits and legumes (i.e. i.e. black beans, lentils, and split pea) are chocked full of vitamins, minerals, fiber and small amounts of protein.

These foods are also naturally low in carbs, usually 5-15 grams per serving.

**Processed and simple carbohydrates:** avoid excessive carbohydrate intake of these foods.

- Bread
- Pasta
- Rice
- Crackers
- Tortilla
- Cereals
- Cookies
- Candy
- Cake
- Pastries
- Fruit juices
- Other sweets



These carbs potentially cause dumping syndrome or can cause a blockage.

If the carb is tolerated, then you can fall into old eating habits, slowing down weight loss and potential weight gain.

Every person has their “crack” food item in regards to carbs. The food that they turn to when stressed or need some comfort or a reward. The carb they crave. The carb they easily overindulge in and fight to resist.

When you are contemplating have a processed carbohydrate, the question you have to ask yourself is “Will eating this food (carb) help me or lead me down a slippery slope?”

For example, if you know you have a weakness for bread (aka it's your "crack"), **then don't eat it!** Trying to convince yourself "just this once" is the type of thinking that got you to the bariatric program in the first place. Be honest with yourself. "Just once" easily turns into every few weeks, then every week, and eventually all the time.

On the other hand, if bread is not your carb of choice, having a slice of bread for a half sandwich now and then might be just fine for you (if you can tolerate it without dumping). *Only you can determine if the carb/food you want to eat will ultimately **help you** toward your weight/health goals or sabotage you.*

### **What will I eat when I go to a restaurant?**

- Restaurant eating will be a very different experience for you after the surgery.
- Ask the server to prepare your food in a low-fat manner.
- Be prepared to bring much of your meal home in a "doggie bag".

### Dining out tips:

- Bring your Bariatric restaurant card (given to you at your 2 month visit) with you so you can order off the smaller menu.
- Look online to preview the menu. Be assertive in asking for special orders.
- Focus on protein first and then vegetables.
- Try ordering 1 dinner and splitting it with someone else or 1 - 2 appetizers instead of a full meal.
- Ask that your food be broiled or baked with no added butter, oil, or fat.
- Ask that bread, rolls, or chips not be brought to the table.
- Concentrate on talking and listening to conversation.
- **No alcohol for the first year**, then only in very small amounts.
- The children's menu is not always the answer for smaller portions as they are often laden with fat calories so learning how to meet your dietary needs is essential.

## How can I have fun at parties or weddings if I can't eat a lot?

- Focus on the social aspect of the event, making a point to engage in conversation.
- Position yourself away from the food table and catch up with friends or get on the dance floor.
- Scan the buffet in advance and make a plan as to what food you can eat.
- If the meal is served, call the facility ahead of time and ask what they will be serving and make a request that will meet your needs.
- Try eating 1 or 2 healthy appetizers and/or a smaller portion of the meal.
- Your dietitian can provide you with tips to make parties and events more enjoyable and healthy.

## When can I drink alcohol after surgery?

- Alcohol is not recommended after bariatric surgery for a minimum of one year and then only in moderation.
- Alcohol provides calories with minimal nutrition; working against your weight loss goal.
- Alcohol absorbs more quickly after surgery and the alcohol will be more potent.
- For some patients, alcohol use can increase and lead to alcohol dependence.
- Alcohol can lead to developing an ulcer.
- For all of these reasons, it is recommended to avoid alcohol after bariatric surgery.



## **Do I really need to go to all my bariatric follow up appointments?**

YES! Your anatomy has changed; therefore your medical and nutritional needs have changed. Long-term follow up with your bariatric team requires attention to several aspects of care.

- Make sure you are adjusting to your procedure.
- Assess your nutrition intake to safely maximize weight loss and prevent weight gain.
- Discuss weight loss progress.
- Evaluate potential complications resulting from improper behavior or from surgical complications.
- Monitor status of your comorbidities.
- Adjust medications, if needed.
- Check laboratory values.
- Answer any questions or concerns you may have.
- The follow-up visits may be the surgeon, a physician assistant, a nurse, or the dietitian.
- It is important that you follow this long term care so that any problems or concerns that develop over time can be addressed by your team.
- The team is here to educate, guide, support, and motivate you continuously, so you can achieve a healthy weight after surgery.



# Vitamins & Medications after Bariatric Surgery

## **Short Term:**

Omeprazole:

- 20 mg a day for 3 months for gastric bypass and possible vertical sleeve gastrectomy patients (may not need it)
- This medication decreases the production of stomach acid allowing better healing of your stomach pouch

**Ursodiol:** No Longer Prescribing

## **Long Term:**

**Vitamin B12:** For gastric bypass patients only

- 500 micrograms a day. Take one per day.

**Calcium Citrate with Vitamin D:**

- 1500 - 2000 mg per day.
- Take in 500 - 600 mg calcium citrate with 400 IU vitamin D dosage, 3 - 4 times a day, depending on the brand.
- Many patients require Vitamin D, in addition to what they receive with their calcium. Dose will depend on blood test results.

**Multiple Vitamins with minerals and iron added:**

- Take one per day.

**Iron Supplements:**

- Separate Iron supplement is prescribed to pre-menopausal women and as needed for others.
- Take iron as prescribed by your surgeon.
- Do not take iron and calcium at the same time (separate by 2 hours).
- Vitamin C (250mg) is needed for absorption of some iron supplements.

**Probiotics:**

Described in this section.

## Why we take a Vitamin/Mineral Supplement Every Day

- Bariatric surgery dramatically alters your body's ability to absorb vitamins, minerals and nutrients from the smaller amounts of food you'll be eating.
- The resulting vitamin and mineral deficiencies can have serious medical implications.
- As a bariatric surgery patient, it is *absolutely essential* that you take a good quality multiple vitamin and mineral product daily, for the rest of your life.
- You will also need to take additional calcium, Vitamin B-12 and perhaps Iron supplements. These supplements are necessary to prevent vitamin and mineral deficiencies after bariatric surgery.

The following are deficiency symptoms of some of the most important vitamins and minerals. If you often forget to take your supplements, you will be at a higher risk of developing these conditions. Your doctor will request that you have vitamin and mineral levels checked periodically.

### Folate (Folic Acid, Folacin)

- Poor growth
- Blood disorders
- Anemia
- Elevated blood levels of homocysteine (a blood chemical linked to the clogging of arteries).
- GI tract disturbances

### Vitamin B-12 (Cobalamin)

- Degeneration of cerebral white matter, optic nerves, spinal cord and peripheral nerves. Symptoms include numbness, tingling, and burning of the feet as well as stiffness and generalized weakness of the legs.
- Anemia
- It may take 5 - 6 years for deficiency symptoms to appear after natural sources of the vitamin are restricted.

### Calcium

- Bone deformities (osteoporosis, osteomalacia and rickets)
- Tetany – extremely low levels of calcium in the blood may increase the irritability of nerve fibers and nerve centers, resulting in muscle spasms such as leg cramps (tetany).
- Hypertension (high blood pressure).
- Muscle spasms
- Personality changes
- Nausea and vomiting

### Iron

- Malfunction of a variety of body systems
- Fatigue, irritability
- As iron deficiency anemia becomes more severe, defects develop in the structure and function of the tongue, nails, mouth and stomach. Skin may appear pale, and the inside of the lower eyelids pink instead of red. Fingernails become thin and flat, and eventually spoon-shaped nails develop. The tongue may burn, and/or appear red, smooth and waxy.
- Extreme cases of untreated anemia can eventually result in heart failure.

## Potassium

- Nausea, feeling anxious, drowsy or weak.
- Irregular heart beat

## Magnesium

- Tremors
- Muscle spasms
- Personality changes
- Nausea and vomiting

## Vitamins/Supplements Requirements

- The American Society for Metabolic and Bariatric Surgery (ASMBS) daily recommendations has specific recommendations for vitamins and need to be taken every day for the rest of your life to prevent deficiencies.
- Consistently taking the supplements daily is a critical part to your overall health.
- For the first few months you may not be able to swallow larger pills. Most patients find it easier to take a chewable or liquid for calcium citrate and multivitamins.
- Chewable and liquid supplements usually contain sugar for flavor, which can result in dumping (especially with liquids) and added calories. Read the label carefully.

Vitamins/Minerals	Gastric Bypass	Sleeve Gastrectomy
Multivitamin with iron	1 svg/day	1 svg/day
Calcium Citrate with Vitamin D3	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)	500 - 600 mg svg, <b>3x/day</b> (1500 - 2000 mg day)
Probiotic	1 svg daily	1 svg daily
Vitamin B12	1 svg/day (500 micrograms)	NA

**Multivitamin (MVI) with iron = 200% of daily value\*** Begin on day 1 after hospital discharge

**Take 1 serving of multivitamins daily for a lifetime.**

## TIPS

- **Take a complete multivitamin with at least 18 mg iron, 400 mcg folic acid, and containing selenium and zinc in each serving.**
- Specialized bariatric brands tend to be high quality, better absorbed and better tasting.
- Specialized bariatric formulations are available but not all contain iron so read the label carefully.
- Serving size will depend on individual products.
- Chewable and liquid vitamins are best absorbed.
- For the first 2 months after surgery, take a chewable multivitamin (there is no liquid form that contains iron).
- Progress to whole tablet/capsule as tolerated; if you decide to switch to a pill form after 2 months, soft gels or capsules may be better absorbed than tablets.
- May improve gastrointestinal tolerance and absorption when taken close to food intake (**except with dairy**).
- May separate dosage.
- Every brand has several, very similar variations of a multivitamin with iron. Make sure to read the label!
- **Multivitamin containing iron needs to be separated by at least 2 hours from calcium supplements for maximum absorption.**

## AVOID

- **Avoid** time-released supplements.
- **Avoid** enteric coating.
- **Avoid** children's formulas that are incomplete.
- **Do not take MVI in gummy form.** Gummies don't have all the vitamins & minerals required.
- **Do not take "all in one" multivitamins and calcium citrate supplements.**
- **Do not use patch vitamins.** There is no way to know to know the rate of absorption so we do not recommend this form of vitamins.
- **There are no multivitamins with iron in liquid form.** If you use a liquid multivitamin, you will need to take an additional iron supplement.

## Recommended Multivitamins with iron

- The chart is a list of multivitamins with iron supplements that meet the (ASMBS) daily recommendations for bariatric patients.
- The chart includes the brand name, serving size on the label, calories (if any), iron mg, folic acid mcg, and dosage.
- The last column indicates the amount you need to take to meet your daily minimum requirement. All the brands listed contain selenium and zinc in each serving.

## Multivitamin with Iron Recommendations

### Chewable or Soft Gel (first 2 months post op)

Brand	Serving size	Iron (mg)	Folic acid (mcg)	Daily Minimum Required Amount
Bariatric Advantage Advanced Multi EA Chewable Tablets	2 tablets (20 calories)	45	800	<b>2 tablets daily (20 calories)</b>
Celebrate Multi-Complete 36 Chewable with Iron	2 tablets (15 calories)	36	800	<b>2 tablets daily (15 calories)</b>
Celebrate Multi-Complete 18 Chewable with Iron	1 tablet (10 calories)	18	800	<b>1 tablet daily (10 calories)</b>
Opurity Bypass & Sleeve Optimized - Chewable	1 tablet (10 calories)	18	800	<b>1 tablet daily (10 calories)</b>

## Multivitamin without Iron Recommendations (separate iron supplement required)

### Chewable (first 2 months post op)

Brand	Serving size	Folic acid (mcg)	Daily Minimum Required Amount
Bariatric Advantage Multi Chewy Bites	2 chewies (35 calories)	800	<b>2 chewies daily (35 calories)</b>
Bariatric Advantage Essential Chewable Multi	2 tablets (10 calories)	800	<b>2 tablets daily (10 calories)</b>
BariMelts Multivitamins Fast melting tablets	2 tablets	800	<b>2 tablets daily (10 calories)</b>
Celebrate Multivitamin Chewable	2 tablets (10-15 calories)	800	<b>2 tablets daily (10-15 calories)</b>

### NOTE:

- **If you choose a multivitamin that does not contain iron, you will need to take a separate iron supplement to meet your bariatric needs.**
- Iron supplements: described later in this section.
- Some multivitamins are not included in this chart due to sugar content (grams) &/or high calories or lacking nutrients. Make sure to read the labels before purchasing.

## Multivitamin with Iron Recommendations -

**Tablet or Capsule** (for before surgery and 2 - 3+ months post op)

<b>Brand</b>	<b>Serving size</b>	<b>Iron (mg)</b>	<b>Folic acid (mcg)</b>	<b>Daily Minimum Required Amount</b>
Bariatric Advantage Ultra Multi with Iron	3 capsules	45	800	<b>3 capsules daily</b>
Opurity Complete Bariatric Optimized Multivitamin Multimineral Supplement	2 capsules	18	800	<b>2 capsules daily</b>
Opurity Every-Day Multi	1 tablet	18	400	<b>1 tablet daily</b>
Pro Care Health	1 capsule	18	800	<b>1 capsule daily</b>
TwinLabs Daily One with Iron	1 capsule	10	400	<b>2 capsules daily</b>

## Calcium

Calcium is a mineral that is vital for life. It aids in building bones, clotting our blood, makes our nerves send messages and muscles contract. Approximately 99% of the calcium in our bodies is in our bones and teeth. We lose calcium every day through our hair, nails, skin, sweat, urine and feces. Our bodies cannot produce new calcium. That's why it's important to try to get the calcium we need. If we don't get enough calcium for our body's needs, it is taken from our bones.

Finding the right calcium supplement can be confusing. Often people misread a supplement label and don't get the amount or type they need.

- Every bottle is different since every calcium manufacturer has its own serving size and amount of calcium and Vitamin D3 it provides.
- Most calcium supplements have a serving size of two, so most people think they are taking 1000 - 1200 mg a day when in fact, they are only taking 500 or 600 mg for that serving.
- On top of that, serving sizes can range from three to six tablets. Pay close attention to the label so you don't take too little or too much.

**Calcium Citrate = 1500 - 2000 mg/day** - begin on day 1 after hospital discharge.

- Choose a brand with calcium citrate & Vitamin D3.
- Begin with chewable or liquid. Chewable and liquid vitamins are best absorbed.
- Chewy or wafer calcium citrate supplements are permitted
- Progress to whole tablet/capsule as tolerated; usually after 2 months.
- **Split into 500 - 600 mg doses** for optimum absorption; if you take more than 600 mg, the remaining will be excreted in the urine.
- Be mindful of serving size on supplement label.
- Space doses evenly throughout day.
- Choose a brand that contains magnesium is recommended.
- Wait at least 2 hours taking multivitamin or iron supplement.
- Do not combine calcium with iron containing supplements to maximize absorption & minimize gastrointestinal intolerance.
- Calcium citrate is not as dense as calcium carbonate and is often more easily absorbed. That's why calcium citrate is usually two pills in one dose while calcium carbonate is usually one pill in a 600 mg dose. So look at the label to see what you're getting.
- **Do not take calcium in gummy form.** Gummies are not calcium citrate and are not the best absorbed
- **Do not take products that contain calcium carbonate;** i.e. Caltrate®, Viactiv®, Tums®, OsCal®, calcium triphosphate, oyster shell, bone meal, etc.

**CAUTION:** most of the liquid or chewable are flavored and have calories. These calories can add up fast when you have to take them 3 - 4 times a day.

For example:

- Bariatric Advantage 250 mg Calcium Chewy Bites: each chew is 250 mg calcium citrate, 20 calories per chewy and 4 grams of sugar alcohol.
- You would need to take a total of 6 chews, consuming an extra 120 calories and 24 grams of sugar alcohol to meet your requirement of 1500+ mg a day.

**Possible side effects of taking calcium:**

- Gas or constipation may occur. If increasing fluids does not solve the problem, try another brand of calcium. It may require trial and error to find the right supplement for you, but luckily there are many choices.
- If you are having challenges with a new calcium supplement, start with a smaller amount to better tolerate it. When switching supplements, try starting with 200 - 300 mg every day for a week, and drink an extra 6 - 8 ounces of water with it. Then gradually add more calcium each week.

**Read the label carefully. The label will tell you:**

- ⇒ Serving size (i.e. 4 tablets, 2 caplets, 1 chew, 1 Tbsp., 4 wafers, etc.)
- ⇒ Amount of calcium (mg) per serving (i.e. 240 mg, 500 mg, 1000 mg)
- ⇒ Calories per serving (usually in liquid or chewable forms)
- ⇒ Type of calcium (i.e. carbonate, citrate, gluconate, etc.)
- ⇒ Only choose calcium citrate



<b>Supplement Facts</b>		
Serving Size 2 Tablespoons (30 mL)		
<b>Amount Per Serving</b>		<b>% Daily Value</b>
Calories	10	
Total Carbohydrate	3 g	<1
Sugars (fructose)	3 g	
Vitamin D3 (cholecalciferol)	800 IU	200
Calcium (citrate)	1200 mg †	120
Magnesium (citrate, aspartate)	600 mg †	150

\* Daily Value not established

## Calcium Citrate with Vitamin D3 Recommendations

- The chart is a list of recommended calcium citrate supplements.
- The last column indicates the serving size and doses throughout the day you need to take to meet the minimum daily requirement recommended by the American Society for Metabolic and Bariatric Surgery recommendations (ASMBS).

**1500 - 2000 mg/day: 500 - 600 mg doses, 3 - 4 times a day.**

### Chewable or Liquid (first 2 months post op)

Brand	Serving Size	Calcium Citrate	Vitamin D3	Daily Minimum Required Amount
Bariatric Advantage 500 mg Calcium Citrate Chewy Bites	1 chew (15 cal/svg)	500 mg	500 IU	<b>1 chew, 3x/day (45 calories)</b>
Bariatric Advantage Chewable Calcium Citrate - 500 mg	1 chewable tablet (10 cal/svg)	500 mg	300 IU	<b>1 tablet, 3x/day (30 calories)</b>
Bluebonnet Liquid Calcium Citrate Magnesium and Vitamin D3	1 Tbsp. (5 cal/svg)	600 mg	400 IU	<b>1 Tbsp., 3x/day (15 calories)</b>
Celebrate Calcium Citrate - Chewable	1 tablet (5 cal/svg)	500 mg	333 IU	<b>1 tablet, 3x/day (15 calories)</b>
Celebrate Calcium Citrate Soft Chews	1 piece (15 cal/svg)	500 mg	500 IU	<b>1 piece, 3x/day (45 calories)</b>
Opurity Calcium Citrate Plus Chewable	4 tablets (20 cal/svg)	1200 mg	800 IU	<b>2 tablets, 3x/day (60 calories)</b>
Wellesse Liquid Calcium 1000 mg & Vitamin D3	2 Tbsp. (15 cal/svg)	1000 mg	1000 IU	<b>1 Tbsp., 3x/day (22 calories)</b>

### Caplet or Tablet form (for before surgery and 2 - 3+ months post op)

Brand	Serving Size	Calcium Citrate	Vitamin D3	Daily Minimum Required Amount
Celebrate Calcium Citrate - Tablets	6 tablets	1200 mg	1200 IU	<b>3 tablets, 3x/day</b>
Citracal Petites with Vitamin D3	2 tablets	400 mg	500 IU	<b>3 tablets, 3x/day</b>
Nova Nutritions Calcium Citrate with D3	2 tablets	700 mg	400 IU	<b>2 tablets, 3x/day</b>
Puritan's Pride Calcium Citrate + Vitamin D3 Miniatures	2 tablets	400 mg	500 IU	<b>3 tablets, 3x/day</b>



**Vitamin B12** = 500 mcg/day (bypass only) - Begin on day 1 after hospital discharge

- Available forms include sublingual tablets, liquid drops, mouth spray, or nasal gel/spray.
- Required for bypass (RNY) patients only.
- Some bariatric brand multivitamins contain 500 - 1000 mcg of Vitamin B12. Read the labels.

Iron - take iron supplement if you choose a multivitamin without iron if additional iron is prescribed by your doctor.

- 18–27 mg/d elemental. No enteric coating.
- Begin with chewable or liquid; progress to tablet as tolerated.
- **Do not mix iron & calcium supplements, take at least 2 hours apart.**
- Avoid excessive intake of tea due to tannin interaction.
- Vitamin C is often prescribed with iron as it may enhance absorption.
- Iron is absorbed the best on an empty stomach but can cause stomach cramps, nausea, and diarrhea in some people. You may need to take iron with a small amount of food to avoid this problem.
- When taking iron, avoid high fiber foods (i.e. whole grains, raw vegetables, & bran) or foods or drinks with caffeine.
- **Milk, calcium and antacids should NOT be taken at the same time as iron supplements. You should wait at least 2 hours after having these foods before taking your iron supplements.**



### Iron Recommendations

Brand	Serving Size	Iron (mg)	Vit C (mg)	Daily Minimum Required Amount
Bariatric Advantage - 45 mg Capsule (non- chewable)	1 capsule	22.5	200	<b>2 capsules/day</b>
Bariatric Advantage - 18 Chewable Iron	1 tablet	18	30	<b>1 tablet/day</b>
Bariatric Advantage – 60 Chewable Iron	1 tablet	60	250	<b>1 tablet/day</b>
Bariatric Advantage Iron Chewy Bites	1 chewy bite	30	60	<b>1 chewy/day</b>
Celebrate Iron + C - 18 mg Chewable	1 tablet (5 calories)	18	36	<b>1 tablet/day</b>
Celebrate Iron + C - 60 mg Chewable	1 tablet (10 calories)	60	60	<b>1 tablet/day</b>
Celebrate Iron + C - 30 mg Tablet (non- chewable)	1 tablet	30	60	<b>1 tablet/day</b>

## Probiotics

- Probiotics are live microorganisms that provide health benefits.
- The human body harbors about 100 trillion bacteria, both good and bad. 80-90% of these bacteria live in the digestive tract, mostly in the colon.
- Maintaining the correct balance of good and bad is necessary for optimal health. Things like medications, diet, disease and your environment can upset the balance.
- An upset balance can result in symptoms.
- Probiotics supplements are considered safe and effective for preventing and treating irregularity of the gastrointestinal tract, such as diarrhea, constipation, irritable bowel and heart burn.
- Some studies have shown that probiotics can prevent H.pylori, vaginal candidiasis and upper respiratory infections.
- Probiotics found in dairy products are typically small in quantity compared to that of a supplement.
- We recommend that you take a probiotic supplement daily on a long term basis.
- Since there are a lot of supplements out there to choose from, we are providing you with a list of some of the more comprehensive and better quality products, including where to buy them, how much they cost and what bacteria they contain.
- Bowel habits are sure to change after surgery and constipation is a fairly common problem. Taking a probiotic supplement daily and drinking adequate fluids will help to prevent this. Diarrhea is not an expected complication after bariatric surgery. If you are experiencing diarrhea or other concerning digestive symptoms, to include constipation that is not relieved by a daily probiotic, please call the bariatric clinic (425-502-3454).

### Recommended Probiotics

Brand	Notes
Align Probiotic	Lactose, soy & gluten- free.
Bariatric Advantage Flora Advantage Probiotic ( <i>Chewable</i> )	Vegetarian and gluten-free
BlueBiotics Daily Probiotic	No soy, gluten, or dairy, 100% vegetarian.
Celebrate BALANCE Probiotic	Vegetarian
Culturelle Digestive Health	No gluten, milk, soy, wheat or preservatives.
Florastor Daily Probiotic Supplement	Vegetarian, gluten free, & non-GMO.
Nutrition Now PB8	No gluten, eggs, peanuts, tree nuts, soy or salt.
Renew Life Ultimate Flora Extra Care Probiotic 150 Billion	Vegetable capsule, gluten free. Contains traces of dairy; may contain traces of soy.
TruBiotics One a Day Probiotic	Gluten & soy free.



**Example Schedule for taking Vitamins & Supplements**

<b>Meal</b>	<b>Vitamin &amp; Supplements</b>
<b>Breakfast</b>	<b>Calcium citrate with Vitamin D3, 500 - 600 mg</b>
<i>Snack</i>	<i>Multivitamin with iron Iron (if additional iron prescribed by doctor) Probiotic Vitamin B 12, 500 mcg (Bypass only)</i>
<b>Lunch</b>	<b>Calcium citrate with Vitamin D3, 500 - 600 mg</b>
<i>Snack</i>	<i>Multivitamin with iron (if additional prescribed by doctor)</i>
<b>Dinner</b>	<b>Calcium citrate with Vitamin D3, 500 - 600 mg</b>

**Where to buy vitamins and supplements:**

**Kaiser Permanente:** carries the multivitamin (chewable and pill), calcium citrate with Vitamin D3 (pill form) and Vitamin B12 (pill form).

<p><b>Stores:</b></p> <ul style="list-style-type: none"> <li>• Bartell Drugs</li> <li>• Costco</li> <li>• GNC</li> <li>• Sam’s Club</li> <li>• Super Supplements</li> <li>• Trader Joes</li> <li>• Walgreens</li> <li>• Walmart</li> <li>• Vitamin Shoppe</li> </ul>	<p><b>Online:</b></p> <ul style="list-style-type: none"> <li>• Amazon.com</li> <li>• BariatricAdvantage.com*</li> <li>• CelebrateVitamins.com</li> <li>• DrugStore.com</li> <li>• iherb.com</li> <li>• Puritan.com</li> <li>• Unjury.com</li> <li>• Walmart.com</li> </ul> <p><b>Read the label to ensure the correct formula and for low sugar content.</b></p>
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**\* SPECIAL NOTE:**

- **Bariatric Advantage** has a special offer for Kaiser Permeate patients.
- Receive Kaiser member pricing of roughly 20% discount & free shipping with validation code: KAISER.
- Enter validation code on the left side of the page.
- Visit: BariatricAdvantage.com or call 1.800.898.6888

# Post Op Concerns

## What they are and how to prevent them

Many of the symptoms that can arise following surgery can be prevented. In the next couple of pages, we will review some of the more common issues that patients can experience and steps that you can take to help prevent them.

There are rare post-surgical concerns that can arise and are mechanical or structural in nature that may require a surgical or endoscopic solution. There may also be medical issues that arise and require treatment with medications. All of these are review as well.

It's very important that you be journaling your food and fluid intake. See the Journaling in section 10 for an explanation of how to journal affectively.

Following the guidelines that have been provided, in regards to eating and drinking, (to include what you eat/drink, how much and how fast), can nearly always prevent symptoms that are not the result of a mechanical/structural or medical issue.

However, it's very important that you know what symptoms to watch for and when and who to call with questions or for advice.

Always, always, always call if you have a question, concern or symptoms that do not resolve quickly or are more urgent. We can help to determine the cause and/or seriousness of your symptoms and provide you with advice. This is all new for you and we would not expect you to not have questions and we encourage to you call, sooner rather than later.

Your symptoms may be something what we can help you to resolve by making some changes to your diet or medications or we may advise that you see your primary care provider, come in to see your bariatric surgeon or go to Urgent Care.

Bariatric Clinic 425-502-3454

Consulting Nurse if after hours 1-800-297-6877

## Hydration / Dehydration

We recommend that you drink 56 ounces of fluid every day. The bare minimum is 32 ounces, to prevent dehydration. In the full liquid phase, these numbers are in addition to the protein drinks.

Low or no calorie fluids are best. Artificial sweeteners are not recommended. They are thought to increase hunger.

It will be necessary to sip fluids all day long, with the exception of the 60 minutes after meals. In the full liquid phase, you do not need to separate meals (protein drinks) and other fluids. Just drink throughout the day, to ensure adequate hydration.

You may need to experiment with different temperatures and fluids to see what's best tolerated. Some patients don't tolerate cold fluids, especially early on. Warm or room temperatures may go down better. This applies to protein drinks as well.

As you lose weight, your body needs to rid of the waste products that weight loss creates. Kidneys are vital for this process. In order for your kidneys to function properly, they need plenty of fluids.

Dehydration can increase constipation, nausea and pain and can just all around make you feel lousy.

Symptoms of dehydration can include:

- Decreased urine output
- Dry mouth
- Dizziness / light headedness
- Increased heart rate
- Low blood pressure
- Fatigue
- Headache
- Constipation

Once you get depleted, it can be very difficult to resolve dehydration on your own.

Always call the Bariatric Clinic 425-502-3454 (Consulting Nurse if after hours 1-800-297-6877) if you are experiencing any of the above symptoms.

Our best advice is to do your best to get in the required amount of fluids each day.

## Nausea / Vomiting

Contrary to popular belief, nausea and vomiting are *not* expected consequences of bariatric surgery. There are numerous reasons that one might experience these symptoms following surgery. The reason is often behavioral and can be resolved with some changes to either what or how one is eating. On occasion your symptoms may require medication. Much less often, the reason can be mechanical or structural, meaning that a procedure or surgery may be required to resolve the symptoms.

Behavioral reasons that might result in nausea or vomiting include:

### Eating the wrong foods

It's very important to read labels. Some foods that seem as though they are very healthy may have ingredients that are not tolerated. See *dumping syndrome* for further information on foods that are less tolerated. It's very important to read and understand food labels and follow the recommendations in the nutrition section (section 6) for each phase of the post op diet.

### Eating too much

Your stomach pouch is about 30 cc. This is about the size of a shot glass or an egg.

Eating too much can result in foods to stack up and cause nausea and often vomiting. Just one bite too much may set you over the edge. If you are experiencing nausea and vomiting after meals, try reducing the size of your meal by a bite or two and see if your symptoms resolve.

### Eating too fast

You will need to take small bites, chew well and eat slowly. Concentrating only on your meal (without distractions like TV or reading) will help you to eat slowly. Using small utensils will remind you to take small bites. Meals should take about 15-20 minutes.

### Not chewing well enough

It's important to chew your food very well. At first you may want to use a timer or watch the clock for all solid foods and chew each bite for at least 30 seconds. This will also ensure that you are eating slowly.

Less frequently nausea and vomiting can be the result of a structural or medical problem.

### Stricture

A stricture is a narrowing of the new connection that was created to connect your new stomach pouch to your small intestine (RNY). If this is going to happen it is usually between 3 weeks and 3 months post op. Symptoms are progressive and typically begin with nausea, vomiting and a feeling that foods are stacking up, first with solid foods and progressing to difficulty with soft foods and liquids. The treatment is dilatation during endoscopy. If you develop the above symptoms, you need to call the Bariatric Clinic.

### Ulcer

Stomach ulcers can develop in the pouch or at the new connection. The first symptoms are usually nausea, vomiting and stomach pain. Sometimes the symptoms are improved following a meal. **Anti-inflammatory medications and smoking are the most common causes of stomach ulcers.** Call the Bariatric Clinic if you are experiencing the above symptoms. Ulcers can be serious. Please don't hesitate to call the bariatric nurse with symptoms or concerns.

## Constipation

Constipation is a very common complaint after surgery. It's important to remember that bowel habits will change following surgery. You are eating less food and different types of foods than before surgery. Your body responds accordingly, producing fewer and smaller bowel movements. The initial post op period can be challenging. You are without any food for a couple of days, and then it's just liquids. Add to that the narcotic pain medication that you are given and you have a recipe for constipation. It's best to be proactive, in the initial post op period and beyond.

### Fluids:

Follow the instructions for adequate hydration, getting at least 56 ounces of fluid each day.

### Exercise:

Movement decreases the amount of time it takes for food to move through the large intestine and stimulates the natural contractions of the intestinal muscles. This helps to efficiently move the stool out. Walk 10-15 minutes several times a day to help keep the digestive track working optimally.

### Fiber:

Fiber supplements, such as Benefiber & Metamucil can be used, but only after you are drinking 64 oz. of fluid per day. You will get fiber from the fruits and vegetables you eat, once you are beyond the full liquid phase.

### Supplements to Prevent Constipation:

- Probiotics  
This supplement helps to regulate the digestive track.
- Stool Softeners (such as DOSS)
- Magnesium (200mg / day)
- Smooth Move Tea
- Fiber Supplements (once you are drinking >64 oz of fluid a day)
  - Metamucil (sugar-free)
  - Benefiber
  - Efferpsyllium
  - Fiber One

### Supplements to Treat Constipation:

- Milk of Magnesia
- Miralax

# Dumping Syndrome

With the RNY, your stomach no longer has a valve that releases stomach contents slowly into the small bowel. Dumping syndrome is the result of the rapid emptying of foods high in sugar or fat into the small intestine. When high concentrations of sugar or saturated fat hit the small intestine, it causes an influx of fluid into the small bowel. This is less likely to happen with the sleeve, but it certainly can, when eating inappropriately.

## Symptoms can result within 10-30 minutes and can include:

- Nausea
- Diarrhea
- Vomiting
- Abdominal cramps
- Bloating
- Epigastric fullness
- Sweating
- Headache
- Flushing
- Lightheadedness
- Palpitations (rapid heart rate)
- A strong desire to lie down

## Prevention

Simply avoid foods that are high in sugar or saturated fats and don't drink with your meals. Some patients may experience symptoms with full fat dairy products, though low fat dairy is typically fine. Ice cream is typically not well tolerated. High fat meats, like hot dogs may result in dumping.

## Hypoglycemia

Reactive hypoglycemia or postprandial hypoglycemia (low blood sugar after meals) is a medical term describing recurrent episodes of symptomatic hypoglycemia occurring 2-4 hours after a high carbohydrate meal. The reason for this is that the body is producing more insulin than is needed in response to a carbohydrate load.

Symptoms can vary and can include:

- Increased or sudden hunger
- Feeling shaky, dizzy or nervous
- Pounding heartbeat
- Drowsiness or feeling tired
- Sweating (cold and clammy)
- Numbness or tingling around the mouth
- Headache and/or stomachache

## Prevention

To prevent hypoglycemia, one should not eat carbohydrates without a protein. If you are experiencing the above symptoms, try having a low fat dairy product, which contains a combination of complex carbohydrates and protein. String cheese or low fat plain yogurts are good choices.

# When to Call

## Call 911 for any unusual symptoms such as:

- Chest pain
- Severe shortness of breath
- Severe dizziness
- Severe headache

## Call the Bariatric Nurse:

**8:00 am – 4:00 pm Mon-Fri**

**425-502-3454**

**Toll-free 1-800-995-5658 Ext. 3450**

- Nausea, vomiting
- Inability to eat or drink
- Symptoms of dehydration
- Constipation or diarrhea
- Symptoms of wound infection
- Any time you have a question or concern
  - If you are concerned – it's reason enough to call!

## Consulting Nurse (after hours)

**Toll-free 1-800-297-6877**

### If you experience any of the following:

- Pain, tenderness, cramping, redness, tightness, or swelling in any part of your leg or foot
- Large amounts of drainage from your incision at anytime
- Fever over 100.5 and/or shaking chills
- Persistent nausea or vomiting
- Severe diarrhea
- 3 to 4 day of constipation

# Follow-Up Appointments & Lab Schedule

All follow up bariatric patients will follow the same schedule for  
Follow-up labs:

<u>Visit</u>	<u>Labs</u>	<u>Notes</u>
Post-Op	No	Will also see the dietitian
2-3 Months	No	Will also see the dietitian
6 Months	Yes (Fasting)	Will also see the dietitian
12 Months	Yes (Fasting)	
2 Years	Yes (Fasting)	
3 Years	Yes (Fasting)	
4 Years	Yes (Fasting)	
5 Years	Yes (Fasting)	

**All Bariatric Patients:**

- ✓ Please do Fasting Labs *at least* 5 days prior to your appointment.
- ✓ Labs are ordered in advance. There is no need to call for them to be ordered, simply go to any Kaiser Lab for these to be done. If no order is in, please call 425-502-3454 (if you get voice mail, please call 425-502-3450 - this phone is answered from 8 a.m. – 5 p.m.)

**Appointment Line: 425-502-3450**

Initial post op visit is typically with your surgeon. Remaining follow-up visits are typically with one of our bariatric ARNP or PA's.

All appointments are equally important – and are not just to review lab results.

**Appointments with the surgeon, ARNP or PA are never done by phone.** Two and 6 month follow ups with the *dietitian* may be over the phone, if she is not available on the day of your appointment with the provider.

The expectation is that patients commit to this follow appointment schedule. They are important for your healthy recovery, they are important for us to know that you are doing well and they are a requirement as a *nationally accredited center* for Bariatric Surgery.

Please call to make appointments a month or two in advance.

**Labs needed:**

- Prior to all follow up appointments, *except* the initial post op and the 2 month visit

CBC

Comp. Metabolic Panel

PTH-intact

Lipoprotein Panel – (Fasting)

Vitamin B12

Vitamin A

Copper

Thiamin

25-hydroxy (Vitamin D)

Iron/TBIC (as needed)

HgbA1c – (if diabetic)

TSH

Prealbumin

Cooper

Zinc

**If your primary care provider is not at a Kaiser Permanente Clinic (contracted) provider:**

- You may do your labs with your own PCP
- Please take this list of regularly ordered labs with you to that clinic/lab
- Please do about 10 days prior to your appointment, if possible
- Please remind provider that these need to be faxed to us, in advance your appointment:  
Fax Number 425-502-3570
- Your doctor may need to know the:
- Diagnosis Code: Z98.84

# Keys to Success after Bariatric Surgery

Use the TOOL you have been given

Listen to your body: When full – STOP eating

Follow the guidelines you are given

- Follow the nutrition guidelines in section 6, for each phase of the diet
- Do not go more than 5 waking hours without eating
- Eat appropriate types
  - Protein first
  - Avoid refined carbohydrate foods
  - Healthy snack is ok
- Separate foods and fluids
  - Wait 60 minutes after eating to drink fluids
- NO GRAZING
  - Nibbling or snack throughout the day will add un-necessary calories and is a poor life style habit
- Work with your dietitian as directed
  - She is available by phone and email, in addition to the routine follow ups
- Exercise
  - Start immediately after surgery
  - Find something that you enjoy
  - Make this a habit
- Sleep
  - Get at least 6 hours of regular sleep, 8-9 hours is best
  - Helps to prevent weight regain
- Make and keep your follow up appointments
  - Get follow up labs as directed
  - See section 9
- Attend the support group
  - See section 2
- Read the monthly newsletter
  - [www.kp.org/bariatric-patients/](http://www.kp.org/bariatric-patients/)

# Food Journaling

Food journaling is one of the most powerful tools you can use to help you lose weight.

Your surgeon, ARNP/PA, dietitian, and bariatric nurse will all ask you about fluids, proteins, and calories at just about every appointment or phone interaction. The reason for this is easy – it's vital that you know the grams of protein, the ounces of fluid and the number of calories that you are taking in every day.

There are many different forms of journaling. You use a purchased food journal in book form, any number of online journaling resources, word document or excel sheet, or simply a pad of paper and a pen.

## **What to track:**

- Time of day
- Grams of Protein
- Main protein sources
- Ounces and type of Fluids
- Calories
- Snacks
- Food Portion ( $\frac{1}{4}$  cup,  $\frac{1}{2}$  cup, etc.)
- Symptoms (nausea, pain or vomiting after eating, etc.)
- Exercise
- Vitamins & Supplements

## **Other things that may be helpful if you are experiencing symptoms:**

- Amount of time spend on the meal
- Where and who you were with during the meal
  - Sometimes we are most tempted in certain environments or with certain people
- Emotions
  - You are more likely to over eat when stressed or unhappy, etc.

## **Journaling can help you to:**

- Ensure adequate nutrition
- See patterns
- Be accountable

Yes, it takes time and effort, but the benefits that you will get out of this time and effort are well worth it.

# Web Page and Newsletter

<http://www.kp.org/bariatric-patients>

## Bariatric page on the Kaiser web site

What you'll find on this Web Page:

- Monthly Newsletter (new one out on the first of each month)
- Updated electronic copy of the Bariatric Notebook (Step's to a Healthier Future)
- Support Group announcement (date/time/speaker, etc.)
- Food Journal printable document
- Probiotic List
- Vitamin Resources
- Check out the many other hands, as this page continues to grow
- Email link for questions
  - (do not e-mail with personal medial questions to this e-mail address – use kp.org/wa or call)

## Newsletter

Monthly newsletter covers a different topic each month. These are topics that the bariatric team feels are important to discuss. You are welcome submit suggestions of topics.

- Monthly newsletter available on the first Monday of each month
- The dates and time of upcoming Bellevue Kaiser Support Group
- Upcoming newsletter topics are listed
- New recipes each month
- Program announcements or changes
- Monthly Topic article
- Much more.....



# Emotions

You have taken a very important step towards improving your health. This life changing surgery can have emotional as well as physical results. Healing from surgery is difficult. Initially you experience pain, are limited in your activities, lack endurance and become easily fatigued. You are changing one of the most basic behaviors of all, eating. You are unlearning things, some of which you have done your whole life. Your feelings about yourself are changing, as perhaps are feelings others have about you. It is normal to have many different emotions as these changes happen. You may feel frustrated and angry as well as happy and proud. Each person is unique and will have a different emotional experience.

## As you recover

- Be aware of your emotions
- Acknowledge negative feelings
- If possible, talk with family and friends when you are emotionally vulnerable
- Set realistic expectations for yourself and others

Feelings of loneliness, isolation, and withdrawal are signs that may lead to depressions. Talk with your family doctor or social worker if you feel that depression or anxiety is interfering with your ability to cope. Behavioral Health Service counselors are also available. Call toll free 1-888-287-2680 for more information. There are a variety of treatments available to help. See the Behavioral Health Services brochure found in the back pocket of this booklet for more information.

Please remember that, as you start this journey, it is not recommended that you change any current treatment or therapy for depression or other mental health issues. Please work with provider/therapist – and do not make changes without their advice.

# If you have Sleep Apnea Don't just stop using CPAP/APAP/BiPAP

## Procedure for post Bariatric Surgery APAP/CPAP/BiPAP withdrawal

1. The patient in conjunction with the surgical support team will establish a goal weight.
2. The first APAP download will be at 50% of Goal.\*
  - A. If the 90th percentile APAP pressures on download is 6 cwp or less, a follow-up test will be ordered to determine if OSA has resolved.
  - B. If download 90th percentile pressure exceed 6 cwp the patient will continue with APAP use.
3. The second APAP download, if needed, will be at goal weight\*
  - A. If the 90th percentile APAP pressures on download is 6 cwp or less, a follow-up test will be ordered to determine if OSA has resolved.
  - B. If download 90th percentile pressure exceed 6 cwp the patient may still need to continue with APAP. The download will be forwarded to the sleep physician. He/She will determine if a follow-up test is appropriate.

**Note:** All Bariatric patients will be set up with an APAP with smart card or chip. This machine will adjust the pressures as weight is lost. \* If the patient was started on CPAP and not APAP, an order for a 5 day autaset will be submitted to replace the download.

## Hair Loss

Yes it can happen, though not all patients will experience hair loss. This is thought to be due to the very low calorie diet, as it happens to those on very low calorie diets that have not had bariatric surgery. Hair loss is temporary. As your calories increase, the hair loss will lessen and stop over time.

### For prevention:

- Eat adequate protein daily
- Take supplements as prescribed
- Take Biotin 3000mcg-5000mcg daily (aka 3mg-5mg)
- Avoid coloring and perming your hair
- Can use products like Nioxin that help to prevent hair loss
  - Found at hair salons and specialized beauty product stores

## **Excess Skin**

This too can happen. The amount of excess skin after weight loss will depend on multiple factors, to include how much weight you loss, genetics and muscle tone. It will be important to keep the skin folds clean to prevent infection. If infections do occur, you should see your primary care physician for evaluation and treatment and to ensure that these are documented in your medical record. If you are interested in plastic surgery to remove excess skin, it's important to know that the only procedures that have a chance of being covered are the abdominal pannus (panniculectomy) or breasts and that coverage is much like bariatric surgery, in that it must be medically necessary. Surgeries for cosmetic reasons are rarely covered. Some insurance contracts cover surgical procedures to remove excess skin when specific criteria have been met. These criteria are different for varying insurance contracts. You can discuss possible surgery with your primary physician who can place an authorization request for you. These requests are then reviewed by the specific health plan to determine whether you meet the criteria for coverage of the requested procedure. The most important thing you can do is to receive proper care for any skin infections and have them documented in your medical record.

There are also garments that can be purchased that will hold skin in place, if plastic surgery is not something that you are interested in or your referral is denied.

# Bariatric Resources

## Books & Cookbooks

- The Success Habits of Weight Loss Patients (Colleen Cook)
- Never Going Back (Al Roker)
- Weight Loss Surgery for Dummies
- Weight Loss Surgery Cookbook for Dummies
- Before and After: Eating Well After Weight Loss Surgery
- The Everything Weight Loss Surgery Cookbook
- The Good Life Weight Loss Surgery Cookbook
- The Emotional First Aid Kit: A Practical Guide to Life After Bariatric Surgery (Cynthia Alexander, PsyD)
- Boundaries: When to Say Yes, How to Say No, to Take Control of Your Life (Dr. Henry Cloud & Dr. John Townsend)
- The Seven Habits of Highly Effective People: Powerful Lessons in Person Change (Stephen Covey)
- Small Bites: Daily Inspiration for Weight Loss Surgery Patients (Katie Jay MSW & J. Persing)
- Obesity Surgery: Stories of Altered Lives (Marta Meana, PhD & Lindsey Ricciardi, PhD)
- Anatomy of a Food Addiction (Anne Katherine)

## Magazines

- Weight Loss Surgery Lifestyles
- Health
- Cooking Light
- Fitness
- Women's Health
- Men's Health
- Eating Well
- Mindful

## **Online**

- [Bariatricpal.com](http://Bariatricpal.com)
- [Obesityhelp.com](http://Obesityhelp.com)
- [Obesitygirl.com](http://Obesitygirl.com)
- [Bariatriceating.com](http://Bariatriceating.com)
- [Baribest.com](http://Baribest.com)
- [nawls.com](http://nawls.com) (National Association for Weight Loss Surgery)
- Obesity Action Coalition
- Mindful Eating - Am I Hungry?
- [Sparkpeople.com](http://Sparkpeople.com)
- Thinner Times Bariatric Support Center
- Facebook (see our newsletter for Kaiser Permanente patients Facebook page)
- American Bariatric Support Group
- Pinterest – Weight Loss Surgery Recipes
- [Overeatersanonymous.org](http://Overeatersanonymous.org)

## **Online Journaling Resources**

- [Fitday.com](http://Fitday.com)
- [Sparkpeople.com](http://Sparkpeople.com)
- [Calorie-count.com](http://Calorie-count.com)
- [Thedailyplate.com](http://Thedailyplate.com)
- [Livestrong.com](http://Livestrong.com)

## Weight Loss Surgery Poem



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Do you have cookies in your car?  
Are those chips not very far way?  
Is that soda in your glass?

Was Weight Loss Surgery your choice to do?  
Or did someone force you to do it?  
If surgery was what you chose,  
Why are you still doing all of those things?

Success begins with the wise choices that you make.  
Don't let noncompliance be your mistake.  
The surgery you had was to assist you in changing.  
Your compliance is for success long term.

So think before you decide to cheat.  
Remember the goals you want to meet.  
For surgery is not something you were forced to do.  
It was what you wanted for a healthier you.





# Glossary

## A

Ambulation: *Walking*

Analgesics: *Medicine that relieve pain*

Anastomosis: *A connection between tubular structures*

Anesthesia: *Medicines used during surgery or other painful procedures to block the ability to feel pain*

Antibiotics: *Medicine used to fight infections caused by bacteria*

Anticoagulation Medicine: *Medines used to delay blood clot formation. Sometimes referred to as 'blood thinners'*

Arthritis: *Inflammation of a joint usually accompanied by pain and frequently, changes in structure*

## B

Bariatric Surgery: *An operation for control or treatment of obesity*

Blood Clot: *Collection of blood proteins and cells that forms a mess to slow or block the flow of blood*

Blood Pressure: *The amount of force pushing against the walls of blood vessels as blood flows through them*

Blenderized: *See Pureed*

## C

Cardiac: *Pertaining to the heart*

Cardiologist: *Physician specializing in treatment of heart disease*

## D

Diabetes: *A disorder of carbohydrate metabolism characterized by increased blood glucose levels resulting from inadequate production or utilization of insulin*

Digestive Enzymes: *Chemical substances that act on food causing it to break down to simpler compounds for use by the body*

Dumping Syndrome: *A condition characterized by sweating and weakness after eating. Exact cause is unknown, but rapid emptying into the small intestine is associated with the symptoms*

## **E**

Electrocardiogram (EKG): *A record of the electrical activity of the heart*

Endoscopically: *A procedure by which a tube and a means for visualization are passed through a natural body opening or incision to allow for inspection or manipulation*

Embolism: *A blockage of a blood vessel by an air bubble, blood clot or other foreign body*

Electrolytes: *Ions or elements in the body, including potassium, calcium, and magnesium that are essential to life*

## **G**

Gallbladder: *Sac attached to the liver for storage of excess bile*

Gallstones: *Lump of solid matter formed in the gallbladder*

Gastroenterologist: *Physician specializing in treatment of stomach, intestines and related structures such as esophagus, liver, gallbladder and pancreas*

Gastrografin Study: *Xray of the stomach and surrounding structures*

Graze: *Continued sampling of small amounts of food*

## **H**

Hernia: *Protrusion of an organ or tissue through an opening in its surrounding walls, especially the abdomen*

Hypertension: *High blood pressure*

## **I**

Incentive Spirometer: *A device used to induce deep breathing*

Informed Consent: *Agreement to undertake a course of action based on disclosure of complete information*

Intravenous Line: *A small plastic tube inserted with a needle into a vein. The needle is removed but the flexible tube remains in place and is attached by other tubing to a bag of fluids. The IV is used to give fluids, medications and any blood products, as needed*

IV: *See Intravenous Line*

## **J**

Jejunum: *The second section of the small intestine beginning about 8 to 11 inches from the stomach and extending about 8 feet. The products of digested food are absorbed through the surface lining the intestine*

## **L**

Laparoscopic Procedure: *A technique which allows the surgeon to perform an operation through small incisions and the use of an instrument by which to visualize the area of interest inside the body*

Liver Enzymes: *See Digestive enzymes*

## **M**

Marginal Ulcer: *See Ulcer*

Malabsorption: *Disordered or inadequate absorption of nutrients from the small intestine*

## **N**

Nasal Cannula *A soft tube which directs oxygen to the nares of the nose*

Nasogastric Tube: *Soft plastic tube passed through the nose and throat into the stomach*

NG Tube: *See Nasogastric Tube*

## **O**

Open Procedure: *Operative technique which provides full, unobstructed visualization and manipulation of the areas of interest and surrounding tissues*

Oxygen Saturation: *Amount of oxygen in the blood available for use by the body*

## **P**

Pneumonia: *Inflammation of the lungs*

Postoperative: *Events or activities occurring after a surgery or procedure*

Pre-Operative: *Events or activities occurring before a surgery or procedure*

Pulmonary: *Pertaining to the lungs*

Pulmonologist: *A physician specializing in diseases of the lungs*

Pulse Oximeter: *A device used to measure the amount of oxygen circulating in the blood*

Pureed: *To process and strain to make smooth*

## **R**

Reflux: *A return or backward flow*

Roux-en-Y Gastric Bypass: *A type of operation performed to treat obesity by dividing the stomach to reduce its size while maintaining absorption activities of the small intestine*

## **S**

**Saline Lock:** *Site of IV that is disconnected from the tubing and bag and capped where a small plastic tube enters the skin. Allows for continued access to the vein for the intermittent administration of fluids, medications, or blood products without continuous infusion*

**Satiety:** *Sensation of being full especially of food*

**Sleep Apnea:** *Periods of not breathing occurring during sleep*

**Sleeve Gastrectomy:** *A type of operation performed to treat obesity by removing a portion of the stomach to reduce its size while maintaining absorption activities of the small intestine*

**Stricture:** *A narrowing or constriction of the opening of a tube, duct or hollow organ*

## **T**

**Transfusion:** *Transfer of blood or blood products*

## **U**

**Ulcer:** *An open sore on the skin or any surface of the body*

**Ultrasound:** *The use of high frequency sound waves to outline the shape of various tissues and organs in the body*

## **V**

**Vital Signs:** *The indicators of the life processes such as temperature, heart rate, breathing rate and blood pressure*

# Document Your Measurements

	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Weight												
Waist												
Chest												
Thigh												
Arm												
Wrist												
Ankle												
Calf												
Neck												
Hips												
Shoe Size												
Dress Size												
Pant Size												

