SLEEVE GASTRECTOMY
Diet Guide

A comprehensive Educational Diet Guide
for the sleeve gastrectomy patient

MISH

MISH
HOSPITAL AND CLINICS

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This diet guide is focused on nutrition and eating after weight loss surgery.
Prior to reading this diet guide refer to our website
to learn about obesity and weight loss surgery.
The website is rich in information. Look for Weight Loss Surgery in the main menu and learn about obesity, weight loss surgery, surgery options, risks and benefits, potential complications and more.

Important Contact & Resource Information

Surgeon(s):

Dr. Wanda Kaniewski	913-322-7401
Dr. Paramjeet Sabharwal	913-322-7401

(after hours leave a message for the doctor on call, and don't forget to leave your telephone number. If we do not respond within 20 minutes call back or call the hospital).

Hospital:

Minimally Invasive Surgery Hospital	913-322-7408

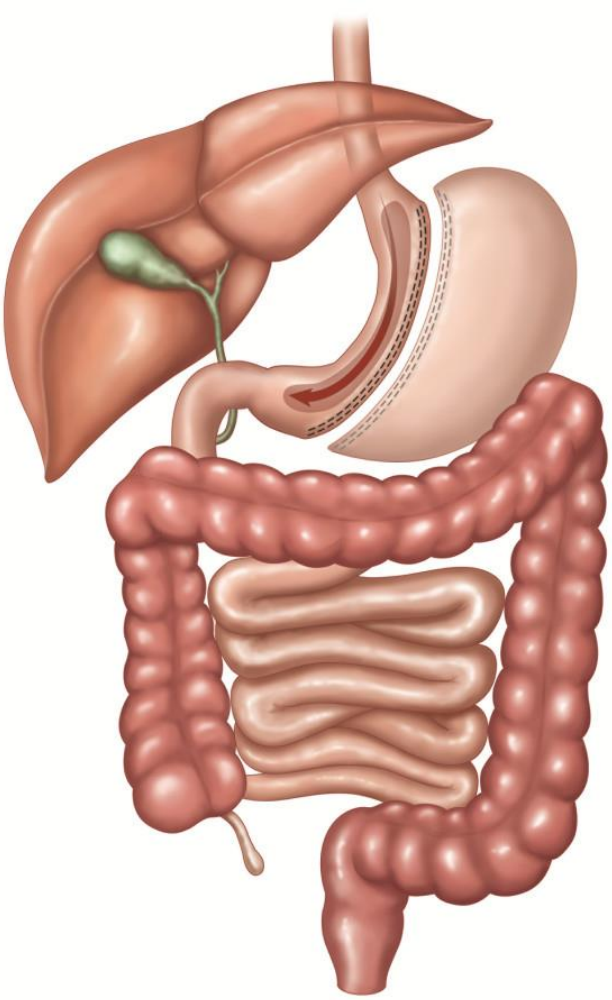
Website
www.MISHhospital.com

Under the **Weight Loss Surgery Tab** you will find a lot of information about weight loss surgery to help you decide if weight loss surgery is right for you, and to understand the risks and benefits of weight loss surgery.

Under the **Patient Resources Tab → Weight Loss Surgery Tab** you will find various forms, guides and instructions that we want you to read and/or download to learn more about weight loss surgery and prepare for surgery As you read this guide, some of these forms will be referenced to.

If you believe you are experiencing any problems or difficulties related to your operation, please call us immediately regardless of where you are or how long ago you had your operation.

THE DIET GUIDE



This diet guide is for the sleeve gastrectomy patient. The purpose of this diet guide is to provide some basic information about the sleeve gastrectomy and how to use it correctly, as well as basic information about required changes to succeed long term, nutrition, meal planning, hydration, protein and micronutrient supplementation before and after surgery.

If used correctly the Sleeve Gastrectomy will allow you to feel full and satisfied (satiated) from what you eat. Your hunger will be controlled. This is a profound experience for many, being released from a prison of hunger. The sleeve procedure restores the satiety mechanism between the stomach and the brain, and allows effective control of food consumption. The most important components of your diet will be PROTEIN, VITAMINS and WATER. We cannot overemphasize the importance of adequate protein and water intake particularly in the beginning when it is most difficult!

Lifelong dietary behavior modification is necessary to ensure both an adequate nutritional status and long term weight loss success. The Sleeve will help you achieve these changes. If your body does not obtain adequate nutrition, it is left vulnerable to fatigue, depression, infection and other illnesses that can impair functioning organ systems, compromise health, and even endanger life. It is important that you do not fixate on food or calories, because this is not a diet. There is no food out there that is really bad for us, unless we consume that food in excessive quantities. Good nutrition through balanced, well portioned and scheduled meals is the key. The Sleeve will restrict how much food you can eat, but not always what you eat. The rules are important to help you take advantage of your tool.

Please read through this Diet Guide as well as the Weight Loss Surgery Preparatory Guide (on our website under patient forms) several times prior to your surgery date. There is a lot of information contained in these guides. The more you read the more comfortable you will be with your decision and better prepared for the change that is coming. These guidelines will help you maximize your weight loss success and maintain good health.

THE SLEEVE GASTRECTOMY IS A TOOL
THE RULES TURN YOUR TOOL ON
THE MORE YOU UNDERSTAND HOW IT WORKS
THE MORE WEIGHT YOU CAN LOSE

QUCK After Surgery Diet Progression Summary

REMEMBER – Slow and Small

Stay hydrated (60 ounces of fluids daily or more)
Keep up with your protein needs (60gm of protein daily)
Take the Multi-Vitamin Daily (see diet guide for details)

Week 1 and 2

Days 1-3 Clear Liquids ONLY

Your entire diet at this time should be a clear liquid. The liquids should be low in sugar (less than 5 grams of sugar per serving). There is no limit on the amount of clear diet liquids you can consume. Do Not Use A Straw in the beginning. Recommended clear liquids include water, sugar free fruit juices, Crystal-Light, coffee/tea, and broths (watch salt). See your Diet Guide for more details.

Days 4 - 14 advance to Full Liquid. LIQUIDS ONLY

You can now add milk products (milk, yogurt drink), creamy soups, and things that taste good when liquefied by a blender. Everything MUST BE A LIQUID. Watch calories. NOW start taking your Multi-Vitamin and Protein.

Bad Liquids: Anything with large amounts of sugar and fat (sweet milkshakes, Ensure, Boost, Slim Fast, Carnation Instant Breakfast, etc.).

Week 3 and 4

Week 3 Pureed Diet

Start advancing to pureed food. If you have to chew it before you swallow it, it probably is not pureed. Blend any solid food down to the consistency of smooth applesauce. See diet guide for more suggestions. Continue to take in at least 60 grams of protein per day. If having trouble go back a step, or stay with pureed foods longer.

Week 4 Soft Diet

Start advancing to soft foods. Soft Food should require minimal or no chewing to swallow. Continue to take in at least 60 grams of protein per day. Even though the foods are soft, do not forget to take small bites and eat slowly. See diet guide for more suggestions. If you are having trouble go back a step, or stay with soft foods longer.

Week 5

Attempt a Regular Diet

You need a RULES CLASS now. You may now start advancing to solid foods. Foods that require chewing to swallow. Start with seafood/fish and gradually move on to poultry then red meat. Avoid bread, pasta and rice now. We recommended that you attend a Rules class at this time. Don't be surprised if you can only eat 1 or 2 oz of solid food in the beginning. Once you are able to tolerate solids we expect you to start following the rules. As you eat protein from food reduce protein shake use accordingly. Please re-read your Diet Guide and attend a rules class! Do not forget to continue to take in at least 60 grams of protein per day! 60 ounces of fluid daily! And one MVI daily!

AFTER WEEK 5

AT AROUND THIS TIME YOU ARE ABLE TO START EATING SOLID FOOD. AS YOU ARE ABLE TO TOLERATE SOLID FOOD MORE AND MORE, YOUR GOAL IS TO GET OFF OF LIQUID FOOD INCLUDING PROTEIN SHAKES AS FAST AS POSSIBLE. WE WANT YOU TO START FOLLOWING THE RULES AS SOON AS POSSIBLE TO MAXIMIZE YOUR WEIGHT LOSS.

IT WILL TAKE ANYWHERE FROM 1 TO 3 MONTHS ON AVERAGE BEFORE A PATIENT IS ABLE TO EAT 60 GMS OF PROTEIN FROM FOOD ALONE AND NOT REQUIRE A PROTEIN SHAKE. THE SOONER YOU ARE ABLE TO FOLLOW THE RULES FULLY THE MORE WE CAN MAXIMIZE YOUR WEIGHT LOSS.

THE RULES START WHEN YOU ARE TOLERATING SOLID FOOD. AT THIS TIME A RULES CLASS IS STRONGLY RECOMMENDED. PLEASE SEE OUR RULES CLASS SCHEDULE ON OUR WEBSITE WWW.MISHHOSPITAL.COM FOR MORE INFORMATION.

THE DIET GUIDE WILL EDUCATE YOU ABOUT THE RULES, NUTRITION, HOW TO EAT AND HOW TO USE YOUR OPERATION AND A LOT MORE. PLEASE READ SEVERAL TIMES TO IMPROVE YOUR SUCCESS WITH WEIGHT LOSS SURGERY.

RULES INTRODUCTION

To succeed long term you will have to make permanent eating habit and life style changes. The Sleeve Gastrectomy, your tool, will help you. In order to experience how the Sleeve Gastrectomy can help, you will have to follow the RULES. The Sleeve is not the cure to morbid obesity, it is a very good tool, that we have to teach you how to use.

During the first few months after surgery we do not want you to follow the rules yet. These months are often referred to as "SURVIVAL MONTHs". Your job during this period is to daily:

- drink 64 ounces of fluid
- drink/eat 60gms of protein
- take your vitamins / fiber

This will be harder than you think. In the beginning to be able to stay hydrated and get your protein in you must break the rules. It will become a full time job just staying hydrated. Most patients are not hungry and thus stop drinking. Once you are tolerating solid food, following these rules becomes important.

THE RULES

AVOID LIQUID CALORIES
EAT SOLID, DRY, DENSE AND DOUGHY FOODS
DO NOT DRINK AROUND MEAL TIME

The rules exist because these operations work much better when these rules are followed. The "Sink Analogy" is the best way we have found to explain to patients why these rules work. We compare your Sleeve to a sink. Your sleeve works kind of like a sink – it works by gravity. Think of your new small stomach (pouch) as a very small sink with a very small drain.

AVOID LIQUID CALORIES

The reason why this is a rule is because it does not matter how small we make your pouch (sink) or the drain (lumen) - liquids will always pass through a working drain, granted slower but they will go thru. Your drain must work for you to be able to drink and eat. We cannot fill a sink or keep a sink full with any type of liquid (includes good for you liquids) when the drain is working. We cannot give you any satiety or satisfaction from a liquid. All liquids will empty from your pouch while you are drinking and go straight to your intestines for absorption. Your pouch will not stay full on liquids. You can drink a lot of liquids without being full, and remain hungry.

EAT SOLID, DRY, DENSE AND DOUGHY FOODS

If you want to experience what your operation can do, it is all about this rule. The reason why this is a rule is because the denser, more solid, dryer and doughier the food you are eating is the easier it is to plug up the sink (pouch).

What goes down a sink drain easier? - A bowl of soup or a sandwich? The pouch can be quickly filled and kept full with solid, dry, dense and doughy foods. The denser, more solid, dryer and doughier the food is the faster we can fill the pouch (sink), the longer the pouch stays full, the less you can eat, and the better your hunger and cravings will be controlled. If you were just to eat red meat the sleeve would work very well because red meat is the densest, most solid, and dry food we have.

DO NOT EAT AND DRINK AT THE SAME TIME

The reason why this is a rule is because we do not want you washing out the food while you are eating it. When trying to stuff a hamburger down a sink drain, it is much easier to do it while the faucet is running. Your body does not need your help to empty the pouch. If you let your body do the work on its own it will take it longer and thus keep you full and satisfied longer.

- We want you to stop drinking about 5 minutes before your meal – to make sure the sink is empty (dry) of any liquid before putting food in it.
- Once you start eating no more drinking – do not liquefy or wash out the food you are eating or that is in your pouch. You will be able to eat more, and you will be hungry sooner if you are drinking while eating. Eating and drinking at the same time will cause you pouch to empty while you are eating. Avoid putting a glass of any liquid next to your meal – the habit to eat and drink at the same time is very strong. You may not realize that you are even doing it till it is too late. Try to drink large amounts of liquid before your meals so the craving to drink during and after your meal is significantly reduced.
- We also do not want you to drink for at least 90 minutes after your meal. Do not help mother nature – your pouch can liquefy the food on its own without your help. Your pouch will take longer on its own, thus giving you prolonged satisfaction and hunger control.

RULES CLASS SUPPORT GROUP

Rules class Support Group is mandatory for your success. It is an interactive educational support group. The surgeons run the rules class, it is about an hour long. Its focus is on explaining to you the three rules in greater detail while offering examples, suggestions and hints on how to comply with these rules. As you heal from your operation and become more experienced with the sleeve the rules will keep on taking new meaning to you. Every month or two your ability to eat will change. Food taste and preferences will also change. What you could not tolerate a month ago now may go down easier. The rules class will guide you as you change and become a more experienced weight loss surgery patient. It is also an opportunity to meet other patients and relate to and learn from. Difficulties are encouraged to be shared to assist you better in compliance with the rules.

Please check the schedule on our website or call for times and dates.

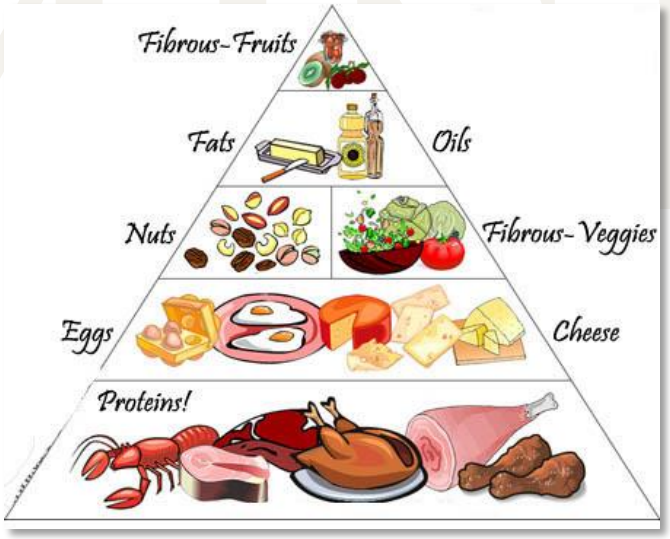
NUTRITION

Weight loss success after bariatric surgery does not rely on a reduced calorie diet alone. The surgery you underwent will control your hunger and it will make you full and satiated from small amounts of food. You will never have to go on a diet again, but you will have to choose what you eat wisely. We hope you will come to realize, that once your meal portions are reduced to a ½ cup (4 ounces) of food per meal, your meals will have to be nutritious because you are now eating very little food and you have to make better food choices to meet your daily body nutrition needs.

A diet that is low in carbohydrates and fats, and high in quality protein is essential, along with vitamin and mineral supplementation. Seventy percent of your calories have to be protein, with a minimal intake of 60 gm of protein per day. Poor protein intake will result in muscle wasting, hair loss and poor ability to heal. When the body does not take in enough protein through diet it will look for it in muscle, and cause muscle breakdown. The body cannot make the essential amino acids to make certain protein, diet is the only source of these amino acids. To stay out of trouble all patients daily must:

- Drink 64 ounces of fluids
- Eat 60 gm of protein
- Take their vitamins & minerals / Fiber

Below is what the Bariatric patient food pyramid looks like. At least 70% of every meal has to be protein (20 gm of protein/meal), next on your plate should be a fruit or vegetable. Always eat protein first, then eat the other things on your plate. This way if you get full, you at least ate your minimum of protein per meal. Starches and fat have the least nutritional value to a bariatric patient in the beginning.



If you look carefully you will notice that the foods stressed in this pyramid are found in the outer perimeter of a grocery store. We ask our patients to minimize shopping in the middle isles of a grocery store. The middle isles usually contain processed food, high in simple sugars and saturated fat and low in protein. We want you eating good quality, real food as much as is possible.

PROTEIN

Protein will be the most important nutrient in your diet. Protein is the basic building block our body uses to repair and replace tissue. You will need to monitor your protein intake for the remainder of your life (minimum 60 gm/day). This is a normal amount of protein that every human being should be eating daily. The reason why a bariatric patient needs to be aware of his/her protein intake is because after surgery they are unable to eat 60 of protein without effort. On average early after weight loss surgery a person can only eat 10 gm of protein per meal and

they have to supplement with a protein shake temporarily. Without adequate protein, serious complications can arise including neurological deficits as well as heart, liver and kidney problems long term.

You can purchase a paperback book that lists protein, and carbohydrate content in foods in grams. Use it till you have developed a good feel for which foods are rich in protein as well as which foods are not. Also learn how much protein certain foods have compared to others. If you have protein with every meal, and at least 2/3^{rds} of every meal is protein (a deck of playing cards is about 3 ounces of meat or fish) you should be able to eat 20gm of protein per meal, ensuring at least 60gm of protein per day. By eating 3 decks of meat, fish, chicken, or seafood daily you will eat about 60 gm of protein without weighting or protein counting.

Learn more about protein and nutrition in the About Protein guide on our website – Patient Resources → weight loss surgery. Examples of foods high in protein:

Cheese	6gm/1oz
Cottage cheese	14gm/ 4oz
Yogurt	8gm/8oz
Soy milk	7gm/8oz
Milk	8gm/ 8oz
Evaporated milk	19gm/8oz can
Egg	6gm /serving
Beans (chick peas, edamame, any bean.)	7gm/1/2cup
Tuna fish	14gm/2oz
Tofu	8gm/4oz
Meat (chicken, beef, pork, turkey)	7gm/1oz
Seafood (shrimp, lobster, scallops..)	6gm/1oz
Fish	7gm/1oz

Because you can only eat small portions, it will be important to eat **protein first**, and **then vegetables**, **starches** or **fruits** in order to get your protein in. Immediately after surgery you probably will have to rely on protein shakes to make the protein math add up to 60 gm/day. After 2 to 3 months the need for protein shakes should be significantly reduced. We want you following the rules as soon as possible to maximize your weight loss. It will depend on how quickly you advance your diet. Obtain a paperback book that lists protein in foods as this will help you estimate your protein intake from your daily diet and determine if you will need to continue with protein supplements.

Remember your protein intake has to be 60 gm/day or more for your entire life. If you are unable to maintain that amount of protein intake from diet alone, you will have to continue to use protein supplements till you are able to eat 60gm of protein or more per day from diet.

The largest protein supplement selections can be found at stores like GNC, Vitamin World, Health stores, and on the internet. Wal-Mart, Costco, Sam's club sell them as well but selection is more limited. It does not matter which protein shake you drink as long as you like its taste and you are drinking it.

The best protein shakes are those that have 15 to 20gm of protein per serving with less than 5 gm of sugar per serving. The protein can be whey or soya. Avoid things like Ensure or Boost these contain a lot of sugar – we want protein not sugar. Read the food labels – look for high protein and low sugar. If the initial protein you found does not taste good, find a new one. You MUST get your protein in. Remember if it does not taste good you will not drink it, find one that does, because you must meet your minimum protein requirements.

Some protein shake suggestions: Atkins, any Whey protein product, any Soya product, Myoplex, Slim for Life (<5gm of sugar), Instant Carnation Breakfast (<5gm of sugar)....

High Protein Foods List:

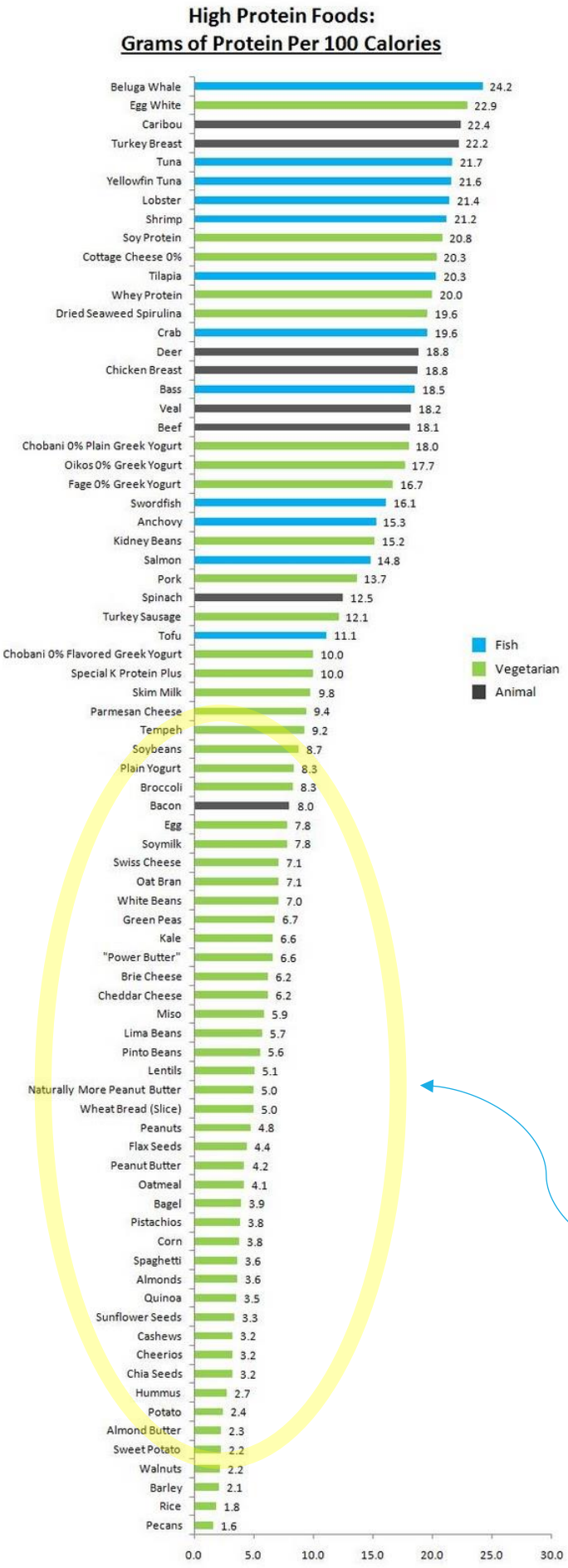
Animal Protein Foods	1 gram edible protein per 100g (3.5 oz) in weight
Beef Topround. Lean	36.12g
Pork Bacon	35.73g
Beef Brisket. Lean	33.26g
Beef Steak. Lean	31.06g
Beef Top Sirloin. Lean	30.55g
Pork Top Loin	30.48g
Bluefin Tuna	29.91g
Turkey Bacon	29.60g
Chicken. Dark Meat	28.99g
Oyster	28.81g
Beef Tenderloin. Lean	28.51g
Turkey. White Meat	28.48g
Beef Kidney	27.27g
Halibut	26.69g
Cooked Trout	26.63g
Veal Cooked	25.93g
Beef Liver	25.51g
Cooked Salmon	25.56g
Goose	25.16g
Caviar	24.60g
Lamb Cooked	24.52g
Freshwater Bass	24.18g
Flounder	24.16g
Beef T-bone	24.05g
Hamburger 80% lean	24.04g
Duck	23.48g
Turkey	23g
Pork Chop	21.91g
Turkey Gizzard	21.72g
Turkey Heart	21.47g
Anchovy	20.35g
Lobster	20.50g
Shrimp moist heat	20.91g
Turkey Liver	20.02g
Alaska King Crab	19.35g
Chicken. White Meat	16.79g

Plant and Dairy Protein Foods	1 gram edible protein per 100g (3.5 oz) in weight
Pumpkin Seeds	32.97g
Peanut Butter	25.09g
Cheddar Cheese	24.90g
Monterey Cheese	24.48g
Colby Cheese	23.76g
Peanuts	23.68
Mozzarella Cheese	22.17g
Almonds	22.09g
Pistachio Nuts	21.35
Flaxseed	19.50g
Tofu	17.19g
Oats	16.89g
Egg Yolk	15.86g
Cashew Nuts	15.31g
Hazelnuts	15.03g
Walnuts	15.03g
Fried Egg	13.63g
Soybeans	13.10g
Whey	12.93g
Cottage Cheese	12.49g
Ricotta Cheese	11.26g
Pecans	9.50g
Lentils	9.02g
Wheat Bread	8.80g
Acorn Nuts	8.10g
Lima Beans	7.80g
Macadamia Nuts	7.79g
Mungo Beans	7.54g
Cranberrys	5.54g
Green Peas	5.36
Pinto Beans	4.86g
Kidney Beans	4.83g
Yogurt	3.47g
Non-fat Milk	3.37g
Whole Milk	3.22g
White Rice	2.69g
Brown Rice	2.58g
Fruits	~1g or less

Each listed food item in the table gives you the amount of protein in 3.5 ounces of food.

For a weight loss surgery patient that needs to eat 20 gm of protein per meal this is important information.

Remember you have to eat 60gm of protein/day. If you can only eat 1 ounce at a time the more protein in the smaller amount of food the better



This table lists amount of protein in 100 calories of food.

If you look at the table closer you will realize that:

- ***Meats***
- ***Fish***
- ***Seafood and***
- ***Dairy***

Not only have more protein in smaller amounts of food, but they also have less calories

Example:
100 calories of egg whites will give you 22.9 gm of protein, while 100 calories of peanut butter will only give you 4.2 gm of protein

So while many nuts, seeds and legumes have protein.

To get 20 gm of protein from nuts, seeds or legumes you have to eat a lot more with a lot more calories to equal that in meats, fish, seafood and dairy

SUGARS / CARBOHYDRATES

Avoid simple carbohydrates or white sugar/starch (refined/simple sugars/corn starch), especially in liquid form! Simple sugars, particularly in the liquid form are known to cause the Dumping Syndrome and faster weight gain.

A very important part of your diet change will be eating complex sugars instead of simple, refined sugars found in candy, pastries, cake, pasta, white bread, flour, chips, pretzels, cookies, ice cream, chocolate, soda, flavored coffee drinks, juices, smoothies or when corn starch is listed as the main ingredient. Simple sugars especially in liquid form cause fast weight gain. It will not matter how small we make your pouch – liquids will pass thru very quickly without giving you any satiety or fullness. None of the obesity surgery operations can protect you against weight gain if you continue to drink high calorie liquids. The operations work best with solid, dry, dense, doughy foods (meat and potato kind of meals).

Sugar and foods high in sugar should be avoided because of high calories. Sugar is such a poor nutrition source, we recommend that patients avoid simple sugars altogether and concentrate instead on protein intake. Complex Carbohydrates (complex sugars) are better tolerated, and in general should be kept to approximately 15 to 20% of your diet to avoid weight gain and dumping.

Many believe all we really need is 30gm of sugar a day. Check a food label and you will see that is very little.

Recommended complex carbohydrates:

- Whole grain – breads, pasta, rice, quinoa
- Brown or white rice
- Fruits
- Vegetables
- Legumes – beans

FATS

High fat foods, like sugar, can cause weight gain. Avoid fried foods, and high fat content foods. Fat is a great energy store but has low nutritional value. Become a label reader.

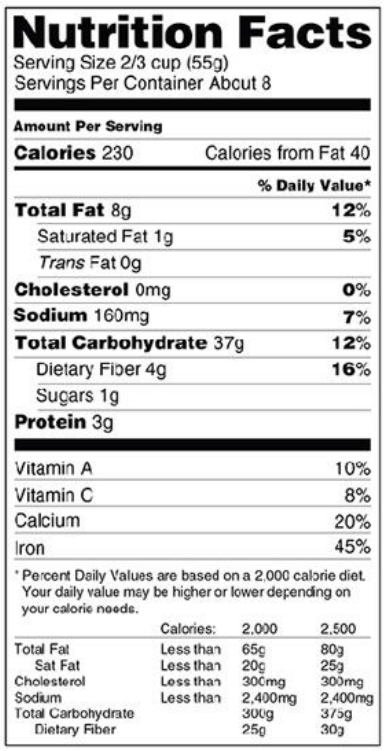
Below is a list of recommendations. Fat is allowed in your diet but choose wisely, fat is often accompanied by high sugar content foods.

- Avoid fast foods
- Choose low fat dairy products
- Avoid deserts (high fat and high sugar)
- Choose lean meats (bacon, sausage – not lean)
- Decrease or avoid adding butter, mayonnaise or dressings to foods
- Avoid “snack foods” such as potato chips, etc.

THE FOOD LABEL

MUST LEARN HOW TO READ A FOOD LABEL

OLD



Nutrition Facts

Serving Size 2/3 cup (55g)
Servings Per Container Abcut 8

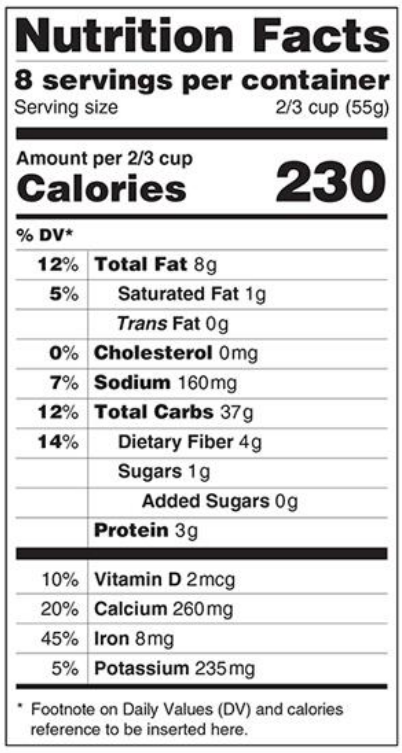
Amount Per Serving

Calories 230	Calories from Fat 40
	% Daily Value*
Total Fat 8g	**12%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 37g	**12%**
Dietary Fiber 4g	**16%**
Sugars 1g	
Protein 3g	
Vitamin A	10%
Vitamin C	8%
Calcium	20%
Iron	45%

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

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

NEW



Nutrition Facts

8 servings per container
Serving size 2/3 cup (55g)

Amount per 2/3 cup
Calories 230

% DV*	
12%	**Total Fat** 8g
5%	Saturated Fat 1g
	Trans Fat 0g
0%	**Cholesterol** 0mg
7%	**Sodium** 160mg
12%	**Total Carbs** 37g
14%	Dietary Fiber 4g
	Sugars 1g
	Added Sugars 0g
	Protein 3g
10%	**Vitamin D** 2mcg
20%	**Calcium** 260mg
45%	**Iron** 8mg
5%	**Potassium** 235mg

* Footnote on Daily Values (DV) and calories reference to be inserted here.

The FDA recently changed food label requirements. Soon you will see food labels displaying serving size and calorie count more prominently. You must learn how to read a food label. Most people ignore serving size which is a terrible mistake. As an example to show you why, we use the cereal food label shown above:

Most of us will eat 3 cups of cereal to fill a bowl. BUT, when we look at a food label we do not look at serving size so we assume that in the 3 cups of cereal that we are going to eat there is 230 calories - **WRONG!**. In 3 cups of cereal there are 4 servings in this case (there a four - 2/3rds cup servings in 3 cups of this cereal) if we do the math (4servings x 230cal = 920 calories). Thus we are not eating 230 calories of cereal, we are eating 920 calories of cereal and that does not include milk (another 250 calories). Suddenly that healthy, low calorie breakfast is not so healthy and low calorie anymore. You must do the math and determine how many servings you will actually eat and multiply everything on that food label by that number to determine how much calories, protein and sugar you are actually going to eat. DO YOU REALY WANT TO EAT 900+ calories of cereal (sugar) or would you prefer a 4 ounce steak with 400 cal.

Another mistake many do is look at the sodium or sugars and assume this is how much they will be eating. That is wrong because most serving sizes listed on food labels are not realistic serving sizes and do not reflect what a person is actually going to eat. Thus you must get in the habit of looking at serving size and do the math to determine how many servings you are really going to have and use that number to multiply all the nutrition information on that label by that number. In this case there is 37gm of sugar in 2/3cup of cereal, since we are eating 4 servings we are actually having **148gm of sugar**. Please

remember total sugar is Total Carbohydrates (never look for the word sugar on a food label, look for carbohydrates to get the real number of sugar in the food)

Quiz: If you can only eat 4ounces of food per meal (1/2 cup) and you chose this food above as your meal, and you know that you need to get in about 20gm of protein per meal - did you do well by choosing this food from the protein standpoint? Answer: NO, you only got in about 2gm of protein.

By reading a food label correctly you will be able to determine how much protein, sugar and fat you are really eating, and you will develop a much better sense of where your calories are coming from and where you need to change. **AWARENESS IS THE START OF CHANGE!**

Recommended daily calorie intake for a sedentary female to maintain a healthy life and weight is 1,800 to 2,000 calories/day, for a male 2,000 to 2,200 calories/day. An average American eating out for dinner consumes 3,500 calories. An average appetizer ordered in a restaurant is 1,000 calories. The fancy frappe coffee drinks served by Starbucks, McDonalds and/or Duncan Donuts average 1,000 calories in the larger sizes. The task to be able to keep calorie intake below 2,000 calories daily is a hard one.

To lose weight our goal is to keep you at or below 2,000 calories/day. If you follow the rules it is a lot easier to do that. In the beginning for the first 3 months you may consume 600-800calories/day, by month 4-5 about 1,000cal/day, and by month 6 about 1,200cal/day and up. To do this you have to follow the rules and have a good understanding of where your calories are coming from so you can make changes, that means you must learn about nutrition and learn to read labels correctly.

LIQUIDS

To stay hydrated you will need to drink liquids almost constantly for the first several months. Everyone should drink approximately eight, 8oz glasses of fluid per day for a total of 64 oz of fluid per day. Sixty four ounces of fluid per day is a non-negotiable requirement to staying healthy during the early active weight loss period. If you are thirsty or your urine is very dark with a strong odor you are already dehydrated. Use your thirst and your urine output/color as a guide to your hydration status. During active weight loss, water is very important in burning fat and getting rid of waste. Because of the protein–rich, sugar-restricted diet, the body enters a state of ketosis (breaking down fat to create sugar). When the body creates sugar in this way it also creates waste, which the kidneys eliminate. Water is very important in helping the kidneys eliminate the harmful waste and avoiding kidney problems. There is no limit on how much liquid you can take, just when once you start following the rules.

In the first month or two, you will need to sip low sugar liquids almost constantly. The best liquid is WATER. During this period even drinking can be difficult but that does not mean you stop drinking. The minimum of 64oz of fluid daily is not negotiable. A few may be forced to lick popsicles all day long to meet their water requirements until able to tolerate sips of liquids and eventually small and slow drinks. Set your cell phone timer for every 5 minutes to prompt to drink or look for where your drink is and drink.

Once you start tolerating solids we expect you to start incorporating the rules into your diet, that means you drink all the time except around meal time as described above in the rules section: stop 5 minutes before a solid meal, during your meal and at least 90 minutes after a solid meal. Otherwise there are no restrictions on how much you can drink and when. Train yourself to drink your liquids before your meals – it will help you stay in compliance with this rule.

Recommended liquids:

- WATER
- Flavored Water Drinks – sugar free/low in sugar
- Crystal Light™ powder drinks
- Popsicles – low sugar
- Coffee, tea - low sugar, small milk
- Strained / broth soups
- Kool-Aid – sugar free

Please note, your liquids have to be low in sugar or sugar free. Consumption of high calorie liquids will result in poor weight loss. Limit high calorie liquids (example: juices to 4oz/day). This is a major important rule. Breaking this rule leads to the fastest weight regain.

Liquids play the most important role in the rules: Must avoid liquid calories, do not drink around meal time and eat solid, dry, dense, and doughy foods; not soft, saucy or runny foods. The more liquid in the food, the more food you will be able to eat. Remember your operation follows the rules of gravity; your pouch can not trap and fill up on liquids and liquid/saucy/runny foods.

Liquids foods to Avoid:

Here is a list of what we consider liquid foods that the operation will not be able to help you with. These foods provide mainly calories with limited nutritional value (protein, fiber, minerals and vitamins). Every bite counts after surgery. Avoid foods that contain refined sugar. Filling up on concentrated sweets and other simple carbohydrates can prevent weight loss and good nutrition.

- Pudding
- Ice cream
- Yogurt
- Canned or frozen fruit in heavy syrup
- Fruit juices
- Cereal

- Sports drinks
- Popsicles - regular
- Jellies
- Regular soft drinks/Lemonade/ice tea
- High fructose corn syrup sweetened beverages
- Carbonated drinks - regular
- Table sugar
- Honey
- Candy and chocolate
- Sweetened gelatin desserts
- Molasses
- Syrups
- Sherbet/sorbet
- Jams
- Soups
- Chilli
- Milkshakes and chocolate milk
- Alcohol, beer
- Cottage cheese
- Stews, casseroles, pot pies

SOLID FOODS

Solid, dry, dense and doughy foods work best with weight loss surgery. The more solid, dry, dense and doughy the food is the better. With soft, saucy, runny, mushy, and crunchy we do a lot worse. We have provided you with a 'Tool', If used properly you will lose weight. The 'Tool' is your new, small stomach that eventually will hold 4 ounces of solid, dry, dense and doughy food at a time. How much food you will be able to eat will depend on how solid, dry, dense and doughy your food choices are or in other words, it will depend on how well you are following the rules.

SOLID - DRY - DENSE - DOUGHY

The pouch size limits the amount of solid, dry, dense and doughy food that can be eaten at any one time thus reducing calorie intake and giving portion control. Our main method of how patients lose weight is through portion control. If you follow the rules and eat solid, dry, dense and doughy foods you will lose weight, have portion control, feel fullness and satiety, and reduce cravings and urges..

When eating solid, dry, dense and doughy foods you are going to have to learn to slow down, reduce bite size and chew your food. We can tell you right now your idea of small and slow is not our idea of slow and small. When experiencing difficulty, you must slow down and reduce bite size even further. Food sticks or obstructs when you eat it too quickly, or your bites are too big. It usually occurs after the first few bites of a meal because you were not paying attention to speed and size. Many patients in the beginning interpret that sensation as fullness, when in fact it is just plugging up of the swallow pipe. It is more likely to happen when in a hurry, in a social setting, or when driving a car and eating. Avoid distractions. It happens when you are not paying attention, and without realizing it you are eating normally and you cannot do that anymore. Remember a big pipe is emptying into a little pipe. The big pipe backs-up very easily.

As you recover and advance your diet to puree, then soft and finally solid food you will need to learn to *eat slower* and *smaller*. The more solid, dry, dense and doughy your food is the slower and smaller you must go. You will also need to *chew your food well*, down to a puree consistency.

The sleeve will force you to eat less, eat slower, chew better and reduce your bite size. Baby size plates and utensils are helpful to some. Precut all meats and sandwiches. Inadequate chewing, fast eating or eating large bites will cause plugging - it declares itself as chest pain and discomfort. The discomfort is in the middle of your chest not in the abdomen. The urge to bring the morsel of food back up will be strong. Try to avoid giving into the heaving-retching urge whenever possible, it can have consequences.

When you get hungry, eat until your pouch is full. You can significantly reduce snacking or grazing by eating meals that fill your pouch. Your pouch does not fill up on 2 to 3 bites. After 2 to 3 bites you are most likely plugging up your swallow pipe. Satiety will last significantly longer with more solid, dry, dense and doughy meals, and you will have better weight loss. Reduce bite size to half a dime or less in the beginning. Do not graze, or eat meals that last an hour. If you drink with meals, you will cause the meal to leave the stomach sooner. The longer the solid meal stays in your stomach the less hungry you will feel and the more weight loss you will experience. **DO NOT drink liquids around meal time and choose foods that are solid, dry, dense and doughy**. The goal is to fill up your pouch and keep it full for as long as possible on the smallest amount of food.

FREQUENTLY ASKED QUESTIONS

FIBER AND CONSTIPATION

A mostly protein diet, low in fiber and potentially fluid, along with iron supplementation can lead to constipation. Early after surgery your focus on protein and difficulty eating enough food will reduce or almost eliminate fiber from your diet. To avoid constipation you will need to add fiber from another source.

To prevent constipation:

- Drink at least 64 ounces of fluid
- Stay active, move around
- Add fiber to your diet:
    - easiest will be over the counter fiber products – Benefiber, Metamucil
    - eating prunes,
    - Try applesauce, or an apple
    - Try oatmeal
    - Reintroduce fruits and vegetables in your diet as tolerated

If constipation becomes a problem, in the beginning try a daily fiber supplement. The fiber supplement BeneFiber™, completely dissolves in water (no glob) and most patients tolerate it without problems. Other products available are Fibercon™ pills, Metamucil™, Citrucel™. Usually you will require 9-12 gm of fiber per day to stay regular. When constipated you may need more till this come back to normal. Focus on foods high in fiber such as fresh fruits or vegetables, and legumes. Remember to chew all fiber-containing foods very well and increase fluid intake when eating fiber.

Once your diet stabilizes and your variety is greater, it will be easier to obtain fiber from diet alone. In the early stages your bowel movements will be all over the place because of the constant change in your diet and the predominance of the liquid diet. Once your diet stabilizes so will your bowel movements they will return to a more normal regularity.

ALCOHOL

Alcohol is liquid calories. One serving of wine, beer or a shot of liquor have about the same amount of calories. After weight loss surgery it is easier to get drunk. You will get drunk faster on a smaller amount of alcohol. Your alcohol blood level will also be higher than a normal persons on the same amount of alcohol. Remember alcohol can dehydrate the body.

SMOKING

Please stop smoking around your surgery time. Smokers have higher complication rates. Smoking is known to impair healing after surgery. We recommend quitting smoking for numerous reasons. Please refer to our website for help on how to quit smoking or speak with your primary care doctor.

CAFFEINE

Caffeine is allowed. Caffeine is a diuretic, it stimulates gut motility and it increases appetite. During the early stages after weight loss surgery we recommend caffeine-free and decaffeinated products particularly if you are having trouble staying hydrated. Once you are able to drink liquids easily caffeine should not be a problem.

LABEL READING

MUST learn how to read a food label. Please see the food label section above for details. The Nutrition Facts Food Label contains a lot of nutrition information. It also informs you about calories and what they consider a serving size.

Avoid foods that list sugar as one of the first three ingredients on the label. Words that end with an *ose* or *ol* ending are sugars. Example: sucrose, dextrose, fructose, glucose, sorbitol, mannitol. Use items with Nutrasweet™, Splenda™, or Equal. When determining sugar content - for the total amount of sugar in that food look for the words Total Carbohydrates not the word sugars.

When monitoring your protein intake make sure you check the label for serving size to accurately determine how many servings you will need to get your protein. Remember we recommend about 20gm of protein per meal. Three meals of 20gm each will add up to 60gm of protein by the end of the day.

LACTOSE INTOLERANCE

Intolerance to milk products develops when the body does not make enough of the enzyme Lactase, an enzyme that is needed to digest milk sugar (lactose). Symptoms are gas, cramps and diarrhea. If you suspect lactose intolerance, remove all milk products from your diet for 48hrs. Slowly reintroduce one milk product at a time to determine which product is causing the problem. Not all will.

If intolerant, options include: Lactaid™ tablets or liquid Lactaid™ drops which can be added to milk, Lactaid milk, Lactaid yogurt, soy milk (fortified) and soy yogurt or cheese

HAIR LOSS

Temporary hair loss is a common side effect of obesity surgery. It is reflective of the great changes your body is undergoing and protein intake. It usually takes several months (4-5) before it is noted. And it can last for 2-3 months.

Hair loss can be aggravated by a low protein and zinc diet. You must take in a minimum of 60 gm of protein per day to help minimize hair loss. Always eat protein foods first, then vegetables and fruits etc. If your hair loss persists you are not eating enough protein or your vitamin does not have zinc.

Do not take in more than 15mg of Zinc per day. Check your vitamin for zinc content prior to adding additional zinc.

EXERCISE

In a perfect world, the surgery would eliminate the need for exercise. But the reality is, your compliance with a post-operative nutritional diet and exercise regimen is mandatory for a long-term and successful outcome. As Carnie Wilson put it "If you play the game, you win; but if you don't play the game, you'll gain."

Early after surgery we recommend just simply walking or stationary bicycle or a treadmill. A pedometer is a great way to monitor your increase in activity. An average person should walk 10,000 steps per day. Our average patient can have trouble with 2,000 steps per day. Walking is very easy to introduce into your day without having to plan for a block of time or a shower after a work out. As you lose weight and it is easier to exercise we want you to increase your activity level. Choose something you like doing or do it with someone who exercises regularly. The doctors will be here to help you.

There are three phases to weight loss after weight loss surgery:

1) **First year** – the operation pretty much does all the work for you. Meaning you will lose weight almost in spite of yourself.
2) **Second year** – a transitional year, where the operation still controls, but relies more on you to follow the rules. Exercise is an excellent way to help maintain the weight loss. Also following the rules now is more and more important to be able to keep the weight off – the operation is relying on you now to do the work.
3) **Third year and beyond** – you assume primary control in maintaining weight loss. If you rely completely on the operation and think you can eat whatever… whenever… weight regain is likely. Adherence to the rules and to the nutrition recommendations is very important. Several studies are now available which have shown that exercise performed 20 – 30 minutes a day, at least 3 times per week significantly helps maintain effective long term weight loss. Don't forget WALKING is exercise.

HINTS

Survival & Success HINTS	
Eat ONLY 3-4 meals/day	Always eat protein first (60gm/day minimum)
Do not eat and drink at the same time	Stop drinking 5 minutes before your meal
Do not drink at least 90 minutes after a meal	Avg. meal should last approx. 20-25min even if small
Put your fork down between bites of food	KEY = eat slowly, reduce bite size, chew well
It is all about solid, dry, dense, doughy food	Liquid and soft foods are less filling
Reflux – call if persistent?	Stay away from processed food
A Baby spoon/fork and plate can help control portion size at the start	Drink low/sugar-free beverages (LOW-calorie)
Avoid using a straw – extra AIR	Eat a minimum of 60 gm of protein per day
Take your vitamins and supplements daily	Limit juices, soda, and alcohol
Avoid carbonated drinks at the start	Buy better quality meat – more tender cuts
Eat to fill up, this will eliminate need for snacking	Eat until you are full, this will eliminate snacking
Grazing IS BAD FOR YOU - slows weight loss	Your body needs 60gm of protein/day to avoid muscle and hair loss
Dry/Doughy food - go slower, smaller	Eat moist foods – but do not eat and drink at the same time
Fish, seafood, shrimp are good solid starters	Try new foods one at a time, if not tolerated try again in one week
Always start with one teaspoon of a new food	Shop on the perimeter of the grocery store
Marinate meats with soy sauce, tenderizer, vinegar or wine to soften and moisten them	Intermittent nausea early on – are you overeating or drinking too fast?
1/2 cup = 4 ounces	Slow cooking/crockpot - preserves meat moisture better
70% of each meal should be protein to get 60gm	Become friends with the grocers butcher
Read food labels carefully	Persistent vomiting - call the office
Drink clear liquids constantly (sugar-free)	Hair loss peaks at 4-6 months – this is temporary!
Tender and moist meat is better tolerated	Dark chicken meat is better tolerated than white meat
Women should use mechanical birth control for the first year after surgery	Do not get pregnant for at least 18months until active weight loss stops
1 Tbsp = 3 tsp = 0.5 ounces = 14.3 grams	1 cup = 8 ounces = 1/2 pint = 230 ml

LIVER SHRINKING DIET (10 DAY LIQUID DIET)

You will likely be asked to start a low sugar, 10 day liquid diet before your surgery. The purpose of this liquid diet is to deplete your liver glycogen (sugar) stores, which in turn will reduce the size of your liver and help make the operation safer and in some cases possible. Often the liver can be too large or hard to retract out of the way to be able to perform the operation. This simple liquid diet is able to shrink and soften the liver to make it amenable to manipulation at time of surgery, and make surgery possible and safer. Here are examples of liquids you can have during this time period. Remember to try to get in about 60 grams of protein per day while on this diet.

****Remember to take in at least 60 grams of protein per day while on this diet****

NOTE: Sugars and carbohydrates are the same thing. Look for liquids that are not only sugar free but also carbohydrate free - the Total Carbohydrates on the food label should red less then 3gms/serving. The maximum amount of sugars/carbohydrates ALLOWED is 50 grams per day. The total daily calories for the liquid, protein and dairy combined should not exceed 600 calories/day if done correctly.

Supply your home with the following:

A. SUGAR FREE Liquids:

Please read all the nutrition labels to make sure the liquids you are drinking have zero sugars and carbs. There is no limit to how much **SUGAR FREE** liquid you can have. Examples are:

- Crystal Light (any flavor)
- Zero calorie flavored water like:
  - Fruit $_2$O
  - Propel
- Sugar free Kool-Aid
- Sugar free Tang
- Diet Snapple
- Coffee with sugar substitute only (NO CREAMER)
- Tea with sugar substitute only (NO CREAMER)
- Water
- Chicken broth
- Beef broth
- Vegetable broth
- Diet Soda
- Sugar free popsicle
- Sugar free gelatin (not pudding)

B. SUGAR FREE/LOW SUGAR Protein Shakes/Drinks:

We recommend that you consume 60 grams of protein per day. Choose protein shakes, drinks, or powders that are sugar free or have less than 5 grams of sugars per serving and mix them with water or a sugar free liquid.

- **Examples of Low Sugar Protein:**
  - Atkins shakes
  - Myoplex
  - Unjury – available here at IABS
  - 100% Whey Protein (found at Hy-Vee)
  - Carb Solutions Shakes
- **DO NOT Purchase:**
  - Slim Fast
  - Ensure
  - Boost
  - Carnation Instant Breakfast

C. SUGAR FREE/LOW SUGAR Dairy:

Each day you can have **a total of 3 servings** of any of the 4 dairy listed below. Each item listed gives you the serving size. For example: in one day you can have 1 string cheese, 1 cup of white milk, and ½ cup of cottage cheese**.**

- 1 cup (8 oz.) of white milk (no flavored milk like chocolate or strawberry)
- 8 oz of plain yogurt or plain Greek yogurt (no flavored yogurts with extra sugar)
- ½ cup (4 oz.) of cottage cheese (may season with salt and pepper and/or sugar free gelatin)
- 1 string cheese (no bread or crackers)

Attention Diabetics! *For those with diabetes we recommend monitoring your blood sugars more frequently and adjust your agents or Insulin accordingly. Most will not require their oral diabetes medication. Use an Insulin Sliding scale to start with, and let your sugars run a little higher during this period 150 - 200 before you to insulin. REMEMBER reduce how much insulin you are taking - your diet is very low in sugar and calories - you do not need as much. Be sure to contact us if necessary to help manage your diabetes during this period.*

DIET IMMEDIATELY AFTER SURGERY

The diet immediately after the Sleeve Gastrectomy progresses through several stages. Regardless of the diet stage, you will always need to consume 64 ounces of liquids, 60gms of protein and take your Vitamins (discussed later). The rules do not start till you are tolerating solid food. The diet immediately after surgery covers the first 4 to 6 weeks. The first month or two are what we call **"Survival"** months. Your most important job during this time is to get in your fluids, protein and vitamin.

THE THREE NON-NEGOTIABLE OR MINIMUM DAILY REQUIREMENTS ARE:

64 OUNCES OF FLUID
60GM OF PROTEIN
VITAMINS

This immediate post-op diet is to help you through the recovery period while teaching you how to eat with your new operation. The three requirements are your goals that you must reach daily during this period. **REMEMBER the RULES DO NOT APPLY during the first 4 to 6 weeks. They start when you are able to tolerate a regular diet.**

DAY 1 THROUGH DAY 3 (CLEAR LIQUID DIET TRIAL)

The first non-negotiable or minimum DAILY requirement starts now

64 OUNCES OF FLUID

The day after surgery you will be started on a clear liquid diet that has no carbonation, no caffeine and is sugar-free or low in sugar. Keep the tastes simple. Stay on this clear liquid diet for at least 3 days. Do not start protein and vitamins till day 4). After the 3rd day you may advance to a full liquid diet if you are ready.

The goal is 64 oz of liquid daily – taken very slowly. Clear liquids are fluids that are liquid at body temperature and can almost be seen through. Start with **small sips**. Avoid the use of a straw. There is no limit on the amount of clear liquids that you can drink. The minimum amount is 64 ounces daily. Initially, water is tolerated better than most other liquids. Sometimes cold liquids are tolerated better than hot and others hot is better than cold. You must keep trying new things till you are able to take in 64 ounces of fluid daily. If you take medications on a regular basis – they have to be cut into smaller pieces or taken in liquid form - *See Home Medications and Weight Loss Surgery guide off our website*.

Early after surgery sugar is a lot sweeter. That means 1 teaspoon of sugar will now taste like 3 teaspoons of sugar. Dilute things that taste too sweet. Also you may discover food smells or certain tastes can bring on a wave of nausea. Avoid these liquids and/or foods till you are ready for them. If something does not pass the smell test do not proceed to the taste test. REMEMBER you must avoid dry heaving and retching during early recovery. After heaving it will become even harder to drink, increasing your risk for dehydration.

Recommended clear liquids:

- Fruit juices – sugar free/low sugar/diluted
- Flat carbonated beverages – sugar-free
- Crystal Light™ powder drinks
- Popsicles – sugar-free
- Caffeine free – coffee, tea (only the first 2 weeks)
- Broths
- Egg drop soup – strained, no crunchy pieces
- Kool-Aid™ – sugar-free
- WATER

- Flavored Zero calorie waters
- Diet ice tea (decaffeinated in first 2 weeks)

DAY 4 THROUGH 2ND WEEK (FULL LIQUID DIET TRIAL)

The three non-negotiable or minimum DAILY requirements start now

64 OUNCES OF FLUID
60GM OF PROTEIN
VITAMINS

A full liquid diet consists of sugar-free, low fat milk products (milk or yogurt), protein supplements and creamy or strained soups. Do not drink pre-mixed drinks like Ensure™, Boost™, and milkshakes etc. (high sugar content). By sipping on these high calorie drinks/liquids throughout the day, many calories can be consumed impeding weight loss. Read the food label.

On day 4 you will start your protein shakes.
Protein will be the most important nutrient that you will concentrate on during this period. The goal will be a minimum of 60 gm of protein per day. Because you cannot tolerate solids, you will have to obtain your protein from protein powders/protein drinks and milk or yogurt drinks. Dairy products are an excellent, natural source of protein and calcium if you are not lactose intolerant. If you are intolerant of dairy products you will have to substitute with protein drinks and powders. Protein supplements need to be about 15 to 20gm of protein per serving, and preferably sugar free. Flavored protein powders may be mixed with clear liquids or milk. You must drink 60gm of protein daily. Please track your protein with each meal, and make sure the math adds up to 60gm/day.

On day 4 start Full liquids if tolerated.
Full liquids are thicker but still pour easily. You continue to drink as much clear liquid as you can. By the end of the day you should have consumed 64 ounces of either or both clear and full liquid. Flavor is allowed as long as you tolerate it. If you can BLENDERIZE into a runny liquid you can have it. Get creative: blend hearty soups by adding more water or broth; make smoothies with real fruit and yogurt add enough milk to keep it runny.

Recommended full liquids:

- 1%, 2%, or skim milk
- Soy milk
- 1%, or 2% milk drinks/smoothies – no added sugar
- Protein shakes – low sugar
- Creamy soups– strained (no solids), low fat, low sugar
- blenderized hearty soups
- Strained & thinned hot cereals
- thinned Yogurt

On day 4 start your vitamins.
Vitamins consist of: a good multivitamin, calcium and Vit B_{12}. At a minimum we want you to start your multivitamin at this time. When it becomes easier start your calcium (500mg twice daily) and Vit B_{12} (only sublingual, nasal spray or as injection allowed) - no later than 4 weeks post-op. Please read the vitamin section toward the end of this guide for more details about vitamins and weight loss surgery.

WEEK 3 *POSSIBLY THROUGH WEEK 4* (PUREED DIET TRIAL)

The three non-negotiable or minimum DAILY requirements continue

64 OUNCES OF FLUID
60GM OF PROTEIN
VITAMINS

You may now begin to eat pureed foods. Puree food should not require chewing. If you are chewing, you should not be having it. Puree can be thick and does not have to pour. During this period you want to drink and eat at the same time. Right now we want everything going down nice and easy - adding liquids helps. REMEMBER once you tolerate solid food and you start following the rules this would be considered cheating.

You are now learning or working your way toward solid food. Our best advice is DO NOT SKIP the stages. Please start with puree, then soft and then solid foods. You may not have to be at each stage as long as described here, but please do not bypass the stages and go straight to solids. You are learning on how to eat with your sleeve right now. The more solid, dry, dense and doughy your food becomes it becomes more and more important to slow down, reduce bite size and chew. This is harder then you think.

Your diet continues to include all clear and full liquids, and now we add puree. The focus is still 64 ounces of fluid and 60 gm of protein per day. Now some of your protein may also be coming in from the pureed food you are eating. The protein in the pureed food you are eating counts toward your total protein intake for the day. Read labels to learn how much protein you are eating from pureed food.

Recommended pureed foods:

- Jarred/canned baby foods
- Smooth peanut butter
- Pureed over-cooked vegetables
- Pureed fruit
- pureed chili
- pureed Chicken pot pie, casserole, stew
- Mashed potatoes with gravy
- Pureed meats/fish/tuna
- pureed Beans (chick peas, refried beans, kidney beans, lentils)
- Runnier - oatmeal, cream of wheat, grits
- Cottage cheese - mashed

During this period any solid food must be blended to the consistency of *applesauce*. Continue to strain all foods of lumps that remain after blending. Remove skins and seeds for now. Well cooked foods, particularly meats and vegetables, will be easier to blend with added broth, sauce, gravy or water. Cut foods into smaller pieces before putting it into a blender or food processor and add liquid to ease blending. Start with 1oz portions.

Over the next few weeks your pouch capacity will increase. Start with an ounce. Stop eating as soon as you feel full. **Do not eat to the point of nausea, vomiting or pain.** Continue to supplement your diet with protein shakes during this time to ensure a total of 60 gm of protein per day while you are adjusting to a solid diet.

After the 2nd week, more of your protein will/should start coming from real food. Monitor your protein intake from real food and slowly start decreasing your protein shakes accordingly. **Make sure that you are still taking in 60 grams of protein per day!** This paper is only a guide; you may find that you need to move slower or faster depending on how you are handling the stages.

WEEKS 4 *POSSIBLY THROUGH WEEK 5* (SOFT DIET TRIAL)

The three non-negotiable or minimum DAILY requirements continue

64 OUNCES OF FLUID
60GM OF PROTEIN
VITAMINS

You may now begin a trial of soft foods. Soft food should not require real chewing. Soft food should be easy to swallow. Soft food can be chopped, ground, mashed or pureed, and moist or saucy. Avoid raw fruit, vegetable, nuts, seeds and coarse chunky food. During this period you want to drink and eat at the same time. Right now we want everything going down nice and easy - adding liquids helps. REMEMBER once you tolerate solid food and you start following the rules this would be considered cheating.

This diet includes all previous items listed as clear and full liquids, puree and now soft food. Try one new food at a time, in very small servings (1 ounce). This will help you learn which food you will or will not tolerate. If you are having difficulties with the transition, stick to the puree diet and in a week try again. If a specific food item is not tolerated wait for a week or two and try it again. Remember go slower, smaller and chew better.

Continue to monitor your protein intake. Now it should be easier to meet your protein requirement. The foods below are rich in protein. You will likely need to continue to supplement with protein shakes to ensure an intake of 60 gm of protein per day.

Recommended soft foods:

- Banana
- Runny scrambled Eggs
- overcooked vegetables (no corn) – remove skin and seeds
- Baked Potato
- meat sauce with alphabet pasta
- tuna fish - with mayo/sour cream
- potato salad
- cottage cheese
- soft cheese
- pot pies - you may want to avoid the meat for now.
- canned fruit

Though the foods are soft you have to remember to chew any solid food to the consistency of applesauce before swallowing. Avoid tough meats for now, these are usually the hardest foods to tolerate. Avoid nuts, seeds, high fiber foods – raw vegetables, and fresh fruits. Moist foods are better tolerated than dry foods. You can still blend but not necessary to applesauce consistency.

WEEK 5 *POSSIBLY WEEK 6-7* (REGULAR DIET TRIAL)

The three non-negotiable or minimum DAILY requirements continue

64 OUNCES OF FLUID
60GM OF PROTEIN
VITAMINS

The “regular” or solid food trial period begins. Solid food requires chewing to be able to swallow it. Solid food mostly includes meat, fish, seafood, raw fruit, raw vegetables, hard cheese, bread, pasta, and rice. Right now we want everything going down nice and easy - adding a liquid can help. REMEMBER once you tolerate solid food and you start following the rules this would be considered cheating.

This diet includes all previous items listed as clear and full liquids, puree, soft food and now solids. Try one new food item at a time, in very small servings (1 ounce). This will help you learn which food you will or will not tolerate. If you are having difficulties with the transition, stick to the soft diet and in a week try again. If a specific food item is not tolerated wait for a week or two and try it again. Remember go even slower, smaller and chew better.

Continue to monitor your protein intake. Now it should be easier to meet your protein requirement. The solid foods we want you to start with are rich in protein. You will likely still need to continue to supplement your protein intake with protein shakes to ensure an intake of 60 gm of protein per day.

More of your protein will/should start coming from real food. Monitor your protein intake from real food and slowly start decreasing your protein shakes accordingly. ***Make sure that you are still taking in 60 grams of protein per day!***

Recommended starting Solid Foods:

- start with seafood, fish
- then dark poultry meat (drumstick, wing)
- then white poultry meat (breast)
- then red meats (beef, pork, lamb) these are the hardest

Once you are tolerating red meat we consider you ready for the weight loss surgery diet below, that means you are ready to start practicing and incorporating the RULES into your life and diet.

Weight Loss Surgery Diet after the 1st month or two

The weight loss surgery diet starts when you tolerate regular or solid foods reasonably well, about 4-6 weeks after surgery. Reasonable means about 1-2 ounces of food 2 to 3 times per day. Now you have to forget everything you were doing during the immediate post-op diet (the first 4-6 weeks after surgery). Up till now you were doing the exact opposite of what the rules want you to do. During the first 6 weeks you were trying to stay hydrated and maintain your protein needs. You were also learning how to eat with your new stomach, and you worked your way back to being able to eat/tolerate solid food again.

The three non-negotiable or minimum DAILY requirements continue

64 OUNCES OF FLUID
60GM OF PROTEIN
VITAMINS

Once you are tolerating regular foods without real problems we want you to start practicing the RULES. The first 6 to 9 months after surgery we call the "Honey Moon" period. During this period it is very difficult to cheat this operation. The operation is controlling you 24/7. The Rules have to be followed to achieve the long term weight loss you desire. We want you to start learning the rules and finding a way to incorporate them into your daily life while it is easy. During the honey moon period you are not hungry, you do not have strong cravings, it is difficult to eat and drink, eating is a job or chore, many forget to eat because they are not hungry. 'Honey moon' period also means it does not last forever - the rules ARE the key to your success. Start practicing them and finding ways to incorporate them into your daily life when it is very easy to do so and the operation is helping you.

THE RULES

Do not drink around meal time
Always avoid drinks/liquids with calories
Eat solid, dry, dense, doughy foods *Avoid saucy, soft, liquid, mushy, crunchy foods*

Initially your main diet focus will be protein. For many it will feel like all you are eating is protein. In order to start practicing the rules and at the same time get your 60 gm of protein/day from food alone (no protein shakes or protein bars) you will mostly be eating protein in the beginning. Even then you will not be able to get 60gm from food alone. At best your portion will start at around 2 ounces. 2 ounces of protein is roughly 14gm, 14gm x 3 only adds up to 42gm/day, if you are able to eat 3 meals/day. Protein shakes should only be used at the end of the day to make the protein math add up to roughly 60gm. Work hard on practicing the rules during the day, and when you only got in 30gm of protein from food drink a shake to make the math 50gm. The earlier you practice the rules the faster your weight loss will be and the easier it will be for you to follow the rules once the operation starts relying on you to use it correctly.

As you progress to a normal diet, you will need to carefully monitor the food choices you make. Remember eat protein first, then vegetables, fruit, pasta, rice, bread and etc. Protein is the most important nutrient for you to worry about. Fat and sugar will always find a way to your plate, protein not so much. Keep track of your protein during the day. The goal is 3 decks of cards daily.

Foods hardest to tolerate are the solid, dry, dense, doughy foods. Weight loss operations work best with these foods. Remember the more solid, dry, dense and doughy the more you have to pay attention and eat smaller and slower. Red meats, chicken breast, bread, pasta, rice and raw vegetables are classic solid foods that will cause you the most trouble while on the learning curve. BUT just because it is difficult it does not mean you stop, you slow down and reduce bite size

even further. You will eventually learn what slow and small means. As time goes on your portions will increase and your ability to tolerate food will also be better. Goal is three 4 ounce meals per day that contain 60gm of protein.

Choose meats often. Learn to prepare meats by marinating them, and buy better quality meats that are tender and juicy. We want you to like and enjoy eating meat. Here is a list of common protein sources and their protein content.

FOOD NAME:	PORTION:	PROTEIN AMOUNT:
Beans, kidney, canned	½ cup	8 grams
Cheese, cottage	½ cup	14 grams
Cheese, Mozzarella	1 oz	8 grams
Cheese, Ricotta	¼ cup	8 grams
Chicken, thigh	3 oz	21 grams
Cod	3 oz	21 grams
Crab, steamed	3 oz	17 grams
Egg	1	8 grams
Flounder	3 oz	21 grams
Halibut	3 oz	21 grams
Ham	3 oz	21 grams
Hamburger	3 oz	21 grams
Lobster, steamed	3 oz	16 grams
Peas, chick, canned	½ cup	7 grams
Salmon	3 oz	21 grams
Shrimp	3 oz	18 grams
Soybeans, Edamame	½ cup	14 grams
Soy flour	¼ cup	13 grams
Soymilk	1 cup	7 grams
Soy nuts	¼ cup	15 grams
Swordfish	3 oz	21 grams
Tempeh	½ cup	16 grams
Texturized Soy Protein	½ cup	11 grams
Tofu	½ cup	10 grams
Tuna, canned	3 oz	25 grams
Turkey	3 oz	21 grams
Veal	3 oz	21 grams
Yogurt, plain	1 cup	11 grams
Steak, beef, pork	3 oz	21gm

Remember to:
chew very well before swallowing,
reduce your bite size
and slow down

WEIGHT LOSS SURGERY RESTAURANT CARD

After weight loss surgery the average portion size of food sold in restaurants is too big for you. Many restaurants will now accept a Special Menu Request Card. This card may allow you to save some money when eating out. Often patients just share a plate with their spouse, or they order from the appetizer menu, or simply take a doggy bag home with them.

Remember when eating out to ask the waiter to take your glass of water or beverage away from you once your meal arrives.

Print the card on heavy card stock paper, fill in your name, cut the card out, and laminate it to help protect it from wear and tear. Keep it in your wallet.

MISH
HOSPITAL AND CLINICS

SPECIAL MENU REQUEST

_____
PATIENT NAME

This patient has had gastric surgery which has reduced his/her stomach capacity to 4 ounces. Please allow him/her to order a smaller portion or make a selection from the children's menu. Thank you!

913-322-7401

VITAMIN RECOMMENDATIONS

You will be required to take vitamin and mineral supplements ***for the rest of your life*** to prevent vitamin deficiencies. The reduced calorie intake can make it hard for you to get complete nutrition from your diet alone. You have to take better vitamins and even exceed the minimum Recommended Daily Allowance (RDA) to compensate for any diet deficiencies. We suggest a chewable or liquid form of vitamin for the first 2 months after surgery. After 2 months you may start taking regular pills again. But if the pills are large they may have to be cut into smaller pieces.

The vitamin levels we need to monitor more closely through lab draws are:

- Folate
- Thiamine
- Vitamin B12
- Vitamin D_3
- Iron
- Calcium

Required Daily Vitamin Supplements are:

- Multivitamin with minerals
- Iron (menstruating females)
- Vitamin B_{12} *(sublingual, nasal spray or injections)*
- Calcium and VitD_3
- Fiber

You will not be able to find a single vitamin pill with everything in it that you will require. Calcium with VitD, VitB_{12} and iron will need to be taken separately. Please read below for suggestions about the vitamins and minerals we need you to take.

MULTIVITAMIN WITH MINERALS

We recommend Prenatal vitamins, Centrum™ Chewable for Adults, Bariatric Advantage or any vitamin that has the vitamins listed below in the approximate amounts. For the first 2 months take one, twice a day. After 2 months take one a day, unless otherwise instructed. Iron, Calcium, VitD3 and Vit B12 will have to be taken separately to meet required amounts.

Make sure the multivitamin tastes good to you. Keep it readily available and insight to improve compliance with daily vitamin intake. Take the list below with you when you go shopping so you can find something that you will enjoy and meets your basic needs.

The internet is a great resource for vitamin shopping. Vitamins are now available in chewable, liquid, fizzy drink, powder, gummy form and now in patch form.

List of Vitamins and vitamin amounts that we recommend for you in a multivitamin are listed below.

Vitamin Recommendation List

Take this with you when shopping for a vitamin

Vit B1 (thiamine)	50-100mg/d
Vit B12	350-500ug/d *Lap Band*
VitB12	1000mcg/month *sleeve, bypass, switch*
Folate	400-800 mcg
Folate (child bearing)	800-1000mcg/d
Calcium	1200-1500mg/d
Vit A	5000 IU/d
Vit A	*5000-10,000 IU/d bypass*
Vit A	*10,000 IU/d switch*
Vit E	15mg/d
Vit K	90-120 ug/d
Vit K	*300 ug/d switch*
Vit D3	3,000 IU/d
Iron	18mg/d males
Iron	45-60 mg/d females
Zinc	8-11 mg/d
Zinc	*16-22 mg/d bypass or switch*
Copper	1mg/d
Copper	*1-2mg/d bypass*
Copper	*2 mg/d switch*

IRON

Do not start iron right away unless you already have an anemia problem, or require iron. We will monitor your iron levels every 3 months if the need arises we will inform you to start iron. We do not recommend iron supplements for everyone. Menstruating females may have to supplement with iron to avoid anemia.

Iron in the form of ferrous fumerate may be better absorbed then other forms of iron. Vitron C and Chromagen is a brand that contains iron in this form.

Chromagen contains 66mg of elemental iron.

Feosol (iron sulfate) Elixir is a liquid form of iron that may be taken during the first 2 months (44mg elemental iron/5ml) – take 5ml/day.

Slow FE (iron sulfate) contains 50mg of elemental iron and is a small, sustained release tablet that can not be crushed.

If Iron supplements will be required to avoid anemia you will need to take in 30 to 40mg of elemental iron. After 2 months 325mg of any Iron Sulfate/day will be adequate.

Calcium, Coffee, tea, and cola sodas can interfere with iron absorption (decaffeinated or caffeinated)

VITAMIN B_{12}

Vitamin B_{12} is required for you to take for the rest of your life. You are only allowed VitB_{12} that does not require absorption via the stomach. Presently 3 formulations are available to you:

- Sublingual VitB2 (daily) 500mcg
- Injectable VitB12 (monthly) 1,000mcg
- Nasal spray VitB12 (daily)

Eighty percent of your stomach has been removed, your stomach may no longer make enough IF to help absorb VitB_{12}. To avoid pernicious anemia, and other problems which can develop silently. Start it as soon as possible after your surgery. You may choose between Sublingual Vitamin B12 (under the tongue) 500mcg once a day, Vit B_{12} injections -1000mcg once per month (must be prescribed by MD), or The Nasal spray version also by prescription.

As we monitor your levels we will inform you if you are taking enough.

CALCIUM

Calcium will most likely be required. There is not enough calcium in your multivitamin. You will require calcium as a separate vitamin. To follow the rules we are going to ask you to minimize milk, yogurt and cottage cheese (major sources of calcium). How much calcium supplementation you will require will depend on your calcium intake from your diet, your age and the state of your bones (osteoporosis). Calcium is necessary for bone formation. Prolonged low calcium intake will result in osteoporosis.

Monitor your calcium intake from diet and then supplement accordingly.

Daily recommended calcium doses:

19-50 yr old	1000 mg/day
51 yrs and over	1200 mg/day
Postmenopausal women	1200 to 1500mg/day
Weight Loss Surgery Patient	1200 – 1500 mg/day

Popular Calcium options:

- 3 Extra strength Tums (calcium carbonate) = 900mg/day
- 2 Viactive™ chewables (calcium carbonate) = 1000mg/day
- 2 Citracal™ (calcium citrate) = 1000mg/day

Do not take the entire dose at once. Splitting the dose and taking it with meals will allow for better absorption. Split the dose in two, and take one in AM and one in the PM.

Avoid taking calcium and iron together -- calcium interferes with iron absorption. Calcium citrate absorbs better than calcium carbonate. The only brand name available with calcium citrate is Citracal™, but there are many generic forms available, read labels. Always take a calcium supplement with Vitamin D as it aids in absorption.

VITAMIN D_3

Vitamin D_3 is not required unless through lab follow-up we determine you have low Vit D levels. Most patients had low vitamin D before surgery and we identified because we look for it to ensure good calcium absorption. If you develop a deficiency the doctors will tell you how much to take, depending on the level of your deficiency it can be 1,000 to 4,000IU per day of VitD_3.

Toward the back of this guide we have provided you with two charts listing important information about the more common vitamins. For each vitamin there is a description of what it does, in what foods it can be found and how a potential deficiency of that vitamin in your diet can present and what potential problems to your health it may cause. Please take time to look through these tables and try to incorporate as many of these foods in your diet to avoid any potential vitamin and mineral deficiencies in the future.

See table 3 *below for more detailed information on what vitamins to take and how much to prevent deficiency.*

Table 3
Supplement Recommendations to Prevent Post-WLS Micronutrient Deficiency

Vitamin B1 (Thiamin)

Thiamin supplementation above the RDA is suggested to prevent thiamin deficiency.

All post-WLS patients should take at *least* 12 mg thiamin daily (Grade C, BEL 3) and preferably a 50 mg dose of thiamin from a B-complex supplement or multivitamin once or twice daily (Grade D, BEL 4) to maintain blood levels of thiamin and prevent TD. ☑

Vitamin B12 (Cobalamin)

All post-WLS patients should take vitamin B12 supplementation. (Grade B, BEL 2) ☑

Supplement dose for vitamin B12 in post-WLS patients varies based on route of administration (Grade B, BEL 2): ☑

Orally by disintegrating tablet, sublingual, or liquid: 350–500 μg daily

Nasal spray as directed by manufacturer

Parenteral (IM or SQ): 1000 μg monthly

Folate (Folic Acid)

Post-WLS patients should take 400–800 μg oral folate daily from their multivitamin. (Grade B, BEL 2) ☑

Women of childbearing age should take 800–1000 μg oral folate daily. (Grade B, BEL 2) ☑

Iron

Post-WLS patients at low risk (males and patients without history of anemia) for post-WLS iron deficiency should receive at least 18 mg of iron from their multivitamin. (Grade C, BEL 3) ☑

Menstruating females and patients who have undergone RYGB, SG, or BPD/DS should take at least 45–60 mg of elemental iron daily (cumulatively, including iron from all vitamin and mineral supplements). (Grade C, BEL 3) ☑

Oral supplementation should be taken in divided doses separately from calcium supplements, acid-reducing medications, and foods high in phytates or polyphenols. (Grade D, BEL 3) ☑ Recommendation is downgraded to D, since majority of evidence is from non-WLS patients.

Vitamin D and Calcium

All post-WLS patients should take calcium supplementation. (Grade C, BEL 3) ☑

The appropriate dose of daily calcium from all sources varies by surgical procedure:

BPD/DS: 1800–2400 mg/d

LAGB, SG, RYGB: 1200–1500 mg/d

The recommended preventative dose of vitamin D in post-WLS patients should be based on serum vitamin D levels: Recommended vitamin D3 dose is 3000 IU daily, until blood levels of 25(OH)D are greater than sufficient (30 ng/mL) (Grade D, BEL 4) ☑

A 70–90% lower vitamin D3 bolus dose is needed (compared to vitamin D2) to achieve the same effects as those produced in healthy non-bariatric surgical patients. (Grade A, BEL 1) ☑

To enhance calcium absorption in post-WLS patients (Grade C, BEL 3): ☑

Calcium should be given in divided doses.

Calcium carbonate should be taken with meals.

Calcium citrate may be taken with or without meals.

Vitamins A, E, and K

Post-WLS patients should take vitamins A, E, and K, with dosage based on type of procedure:

LAGB: Vitamin A 5000 IU/d and vitamin K 90–120 ug/d (Grade C, BEL 3) ☑

RYGB and SG: Vitamin A 5000–10,000 IU/d and vitamin K 90–120 ug/d (Grade D, BEL 4) ☑

LAGB, SG, RYGB, BPD/DS: Vitamin E 15 mg/d (Grade D, BEL 4) ☑

DS: Vitamin A (10,000 IU/d) and vitamin K (300 μg/d) (Grade B, BEL 2) ☑

Higher maintenance doses of fat-soluble vitamins may be required for post-WLS patients with a previous history of deficiency in vitamin A, E, or K. (Grade D, BEL 4)

Water-miscible forms of fat soluble vitamins are also available to improve absorption (Grade D, BEL 4)

Special attention should be paid to post-WLS supplementation of vitamin A and K in pregnant women. (Grade D, BEL 3) ☑

Zinc

All post-WLS patients should take > RDA zinc, with dosage based on type of procedure (Grade C, BEL 3): ☑

BPD/DS: Multivitamin with minerals containing 200% of the RDA (16–22 mg/d)

RYGB: Multivitamin with minerals containing 100–200% of the RDA (8–22 mg/d)

SG/LAGB: Multivitamin with minerals containing 100% of the RDA (8–11 mg/d)

To minimize the risk of copper deficiency in post-WLS patients, it is recommended that the supplementation protocol contain a ratio of 8–15 mg of supplemental zinc per 1 mg of copper. (Grade C, BEL 3) ☑

Formulation and composition of zinc supplements should be considered in post-WLS patients to calculate accurate levels of elemental zinc provided by the supplement. (Grade D, BEL 4) ☑

Copper

All post-WLS patients should take > RDA copper as part of routine multivitamin and mineral supplementation, with dosage based on type of procedure (Grade C, BEL 3): ☑

BPD/DS or RYGB: 200% of the RDA (2 mg/d)

SG or LAGB: 100% of the RDA (1 mg/d)

In post-WLS patients, supplementation with 1 mg copper is recommended for every 8–15 mg of elemental zinc to prevent copper deficiency. (Grade C, BEL 3) ☑

In post-WLS patients, copper gluconate or sulfate is the recommended source of copper for supplementation. (Grade C, BEL 3) ☑

WLS = weight loss surgery; RDA = recommended dietary allowance; BEL = best evidence level; TD = thiamin deficiency; IM = intramuscular; SQ = subcutaneous; RYGB = Roux-en Y gastric bypass; SG = sleeve gastrectomy; BPD/DS = biliopancreatic diversion/duodenal switch; LAGB = laparoscopic adjust gastric band.

☑ New recommendation since 2008 [1] is noted by ☑, otherwise there is no change in the current recommendation.

FOODS RICH IN VITAMINS

NUTRIENT	POTENTIAL	WHAT IT DOES	WHERE IT'S FOUND	SYMPTOMS AND PROBLEMS
Vitamin B1 *thiamin*	VERY COMMON	converts carbs to sugar, breaks down fats and protein, healthy digestion, nervous system, skin, hair, eyes, mouth, liver, immune system	pork, organ meats, wholegrain/enriched cereals, brown rice, wheat germ, bran, brewer's yeast, blackstrap molasses	decreased heart function, age-related cognitive decline, Alzheimer's, fatigue
Vitamin B2 *riboflavin*	LOW	metabolism, converts carbs to sugar, breaks down fat & protein, healthy digestion, nervous system, skin, hair, eyes, mouth, liver, antioxidant properties	brewer's yeast, almonds, organ meats, whole grains, wheat germ, mushrooms, soy, dairy, eggs, green vegetables	poor iron absorption, anemia, decreased free radical protection, cataracts, poor thyroid function, B6 deficiency, fatigue, elevated homocysteine
Vitamin B3 *niacin*	VERY COMMON	energy, digestion, nervous system, skin, hair, eyes, mouth, liver, eliminates toxins, sex/stress hormone production, improves circulation and cholesterol	beets, brewer's yeast, meat, poultry, organ meats, fish, seeds, nuts	cracking, scaling skin, digestive problems, confusion, anxiety, fatigue, reduced endurance
Vitamin B6 *pyroxidine*	VERY COMMON	used in 100 enzymes for protein metabolism, RBC production, reduces homocysteine, healthy nerve & muscle cells, DNA/RNA, B12 absorption, immune function	poultry, tuna, salmon, shrimp, beef liver, lentils, soybeans, seeds, nuts, avocados, bananas, carrots, brown rice, bran, wheat germ, whole-grain flour	depression, sleep and skin problems, elevated homocysteine, increase heart disease risk
Vitamin B12 *cobalamin*	VERY COMMON	healthy nerve cells, DNA/RNA, red blood cell production, iron function	fish, meat, poultry, eggs, dairy products	anemia, fatigue, weakness, constipation, loss of appetite, weight loss, numbness and tingling in the hands and feet, depression, confusion, dementia, poor memory, mouth or tongue soreness
Biotin	RARE	carbohydrate, fat, amino acid metabolism (the building blocks of protein)	meats, vegetables, unprocessed grains, brewer's yeast, corn, cauliflower, kale, broccoli, tomatoes, avocado, legumes, lentils, egg yolks, milk, sweet potatoes, seeds, nuts, wheat germ, salmon	depression, nervous system abnormalities, premature graying, hair loss, skin problems
Folate	VERY COMMON	brain function, mental health, DNA/RNA during infancy, adolescence and pregnancy, with B12 to regulate RBC production, iron function, reduce homocysteine	fortified cereals, grains, tomato juice, green vegetables, black-eyed peas, lentils, beans	anemia, impaired immune function, fatigue, insomnia, premature hair loss, high homocysteine, heart disease risk
Pantothenate	COMMON	RBC production, sex and stress-related hormones, immune function, healthy digestion, helps use other vitamins	meat, vegetables, whole grains, brewer's yeast, avocado, legumes, lentils, egg yolks, milk, sweet potatoes, seeds, nuts, wheat germ, salmon	reduced stress tolerance, poor wound healing, skin problems, fatigue
Vitamin A *retinol*	COMMON	eyes, immune function, skin, essential to cell growth and development	milk, eggs, liver, fortified cereals, orange or green vegetables, fruits	night blindness, poor immune function, zinc deficiency, fat malabsorption

NUTRIENT	POTENTIAL	WHAT IT DOES	WHERE IT'S FOUND	SYMPTOMS AND PROBLEMS
Vitamin D *ergocalciferol*	COMMON	calcium and phosphorus levels, calcium absorption, bone mineralization	sunlight, milk, egg yolk, liver, fish	osteoporosis, decreased calcium absorption, thyroid problems
Vitamin E *a-tocopherol*	COMMON	antioxidant, regulates oxidation reactions, stabilizes cell membrane, immune function, protects against cardiovascular disease, cataracts, macular degeneration	wheat germ, liver, eggs, nuts, seeds, cold-pressed vegetable oils, dark leafy greens, sweet potatoes, avocado, asparagus	dry skin and hair, rupturing of red blood cells, anemia, easy bruising, PMS, hot flashes, eczema, psoriasis, cataracts, poor wound healing, muscle weakness, sterility
Calcium	VERY COMMON	bones and teeth, helps heart, nerves, muscles, other body systems work properly, needs other nutrients to function	dairy, wheat flour, soy flour, molasses, brewer's yeast, Brazil nuts, broccoli, cabbage, dark leafy greens, hazelnuts, oysters, sardines, canned salmon	osteoporosis, osteomalacia, osteoarthritis, muscle cramps, irritability, acute anxiety, colon cancer risk
Magnesium	VERY COMMON	used in 300 biochemical reactions, muscle/nerve function, keeps heart rhythm steady, immune system, strong bones, regulates calcium, copper, zinc, potassium, vitamin D	green vegetables, beans, peas, nuts, seeds, whole, unprocessed grains	loss of appetite, nausea, vomiting, fatigue, weakness, numbness, tingling, cramps, seizures, personality changes, abnormal heart rhythms, heart spasms
Selenium	COMMON	antioxidant, works with vitamin E, immune function, prostaglandin production	brewer's yeast, wheat germ, liver, butter, cold water fish, shellfish, garlic, whole grains, sunflower seeds, Brazil nuts	destructive changes to heart, pancreas, sore muscles, increased fragility of red blood cells, weak immune system
Zinc	VERY COMMON	supports 100 enzymes, immune system, wound healing, sense of taste/smell, DNA synthesis, normal growth, development during pregnancy, childhood, adolescence	oysters, red meat, poultry, beans, nuts, seafood, whole grains, fortified breakfast cereals, dairy	growth retardation, hair loss, diarrhea, delayed sexual maturation, impotence, eye and skin lesions, loss of appetite/taste, weight loss, delayed wound healing, mental lethargy
Co-Q10	COMMON	powerful antioxidant, stops oxidation of LDL cholesterol, energy production, important to heart, liver, kidney function	oily fish, organ meats, whole grains	congestive heart failure, high blood pressure, angina, mitral valve prolapse, fatigue, gingivitis, weak immune system, stroke, cardiac arrhythmias
Carnitine	LOW	energy, heart function, oxidize amino acids for energy, metabolize ketones	red meat, dairy, fish, poultry, tempeh (fermented soybeans), wheat, asparagus, avocados, peanut butter	elevated cholesterol, abnormal liver function, muscle weakness, reduced energy, impaired glucose control
N-Acetyl Cysteine (NAC) & Glutathione	COMMON	glutathione production, lowers homocysteine, lipoprotein (a), heal lungs of free radical damage, inflammation, decrease muscle fatigue, liver detoxification, immune function	meats, ricotta, cottage cheese, yogurt, wheat germ, granola, oat flakes	free radical overload, elevated homocysteine, increased cancer risk, cataracts, macular degeneration, impaired immune function, impaired toxin elimination
Alpha Lipoic Acid	COMMON	energy, blood flow to nerves, glutathione levels in brain, insulin sensitivity, effectiveness of vitamins C, E, other antioxidants	supplementation, spinach, broccoli, beef, Brewer's yeast, some organ meats	diabetic neuropathy, reduced muscle mass, risk of atherosclerosis, Alzheimer's, failure to thrive, brain atrophy, increased lactic acid production

STAYING HYDRATED (Goal is 64 oz./day)

(1 cup = 8 oz. 1/2 cup = 4 oz. *** 8 x 8 oz. = 64 oz. *** soda can = 12 oz. 5 x 12 oz. = 60 oz. *** avg. water bottle = 16 oz. 4 x 16 oz = 64 oz.)

*It is **VERY IMPORTANT** to **pace yourself** during the entire day in order to get 64 oz of fluid in by the end of the day. Because you have to drink **SLOWLY** and **SMALL**, it can take an entire day to get in 64 oz. of fluid. You **CANNOT take 1 hour breaks** between sipping - you will run out of time to get your fluids in.*

You must have a plan to track your fluids. A fluid is not just water, soup, protein shake, milk, crystal light, and any other liquid counts.

It is easier to track when you put your fluids in one type of container with a known volume. Track the number of containers you drink to ensure you are getting in at least 64 oz. of fluid/day. You can number the containers. You can prefill 64 ounces of fluids into containers - and by the end of the day all the containers have to be empty.

This table is designed to help track your fluid intake, and prompt you when you are behind on your drinking.

Time	2 oz.	4 oz.	6 oz.	8 oz.	2 oz.	4 oz.	6 oz.	8 oz.	2 oz.	4 oz.	6 oz.	8 oz.	2 oz.	4 oz.	6 oz.	8 oz.	2 oz.	4 oz.	6 oz.	8 oz.	2 oz.	4 oz.	6 oz.	8 oz.	2 oz.	4 oz.	6 oz.	8 oz.
6:00 AM																												
7:00 AM																												
8:00 AM																												
9:00 AM																												
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9:00 PM																												
10:00 PM																												
11:00 PM																												
MIDNIGHT																												
1:00 AM																												
2:00 AM																												
TOTALs																												
Day Total																												

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WEEKLY WEIGHT LOG:

This log is meant to help you keep track of your weight loss. Notice that there is only enough space to weigh yourself once a week. We firmly believe that if the scale measured your self-confidence, only then would it be worth checking every day.

Starting Weight: _____ **Starting BMI:** _____

Weeks post op:	Date:	BMI	Weight:	Total weight lost:
1				
2				
3				
4				
5				
6				
7				
8				
9				
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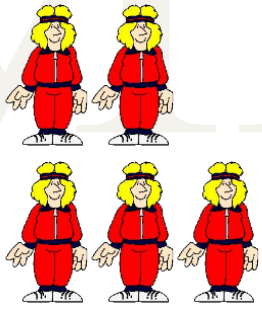
Daily Progress Log

Date:

❑ 

❑ 

❑ 

❑ 

❑ 

Meal		Grams of Protein:
BREAKFAST		
	❑ Multivitamin	
	❑ 500 mg Calcium Citrate	
LUNCH		
	❑ 500 mg Calcium Citrate	
SNACK		
DINNER		
	❑ Multivitamin	
	❑ 500 mg Calcium Citrate	
TOTAL (Goal > 75 grams/day)		

Date: _____

FOLLOW-UP

Follow-up is a very important part to your weight loss success and your health goals. During your follow-up visits the surgeon will meet with you to discuss your progress, catch potential problems, ensure you understand what to do, check your nutrition levels, and answer questions.

At a minimum, we want to see you:

- at 7-10 days after surgery, and then
- at 1 month
- 6 months
- 1 year, and then
- Annually

A Monthly follow-up during the first 6 months after surgery, may be helpful for many patients. These are the more difficult adjustment months. We are available to help guide you during this period.

We strongly encourage you to continue to follow-up with your primary care doctor as well. As you lose weight your health will be changing and your medication requirements will change. Medications may need to be adjusted. The doctor prescribing the medications is the best person to help guide medication adjustments. Most common meds requiring adjustment after weight loss surgery are:

- **Blood pressure medications** – if you are well hydrated but are feeling light headed or dizzy it may mean your blood pressure is too low now
- **Diabetes medication** – immediately after surgery you will require a reduction in your medication, but as you continue to lose weight and your ability to eat food changes and improves your medication requirements will continue to change. Always check and track your blood sugars to help your doctor determine your changing needs.
- **Cardiac medications** – these can also change as you lose weight. Follow-up closely with your doctor or cardiologist for cardiac function re-assessments as you lose weight.
- **Cholesterol medications –** the change is slower but at around 6 months after surgery requirements often need to be re-assessed, to determine if meds can be reduced.

Refer to our website www.MISHhospital.com under Patient Resources for recommended follow-up schedule

Refer to our website for Rules class / Support Group schedule

THE IMPORTANCE OF SUPPORT

The changes in your diet and lifestyle after surgery will last a lifetime. And you'll have a greater chance of long-term success if you surround yourself with people who understand and support your goals.

Things you can do:

- Help your friends and family members understand why you've chosen a surgical solution. Many people are under the impression that weight loss surgery is an experimental treatment rather than one with more than 50 years of history. Direct them to our web site or others. It's important that they understand that morbid obesity is a disease.

- People who are morbidly obese often report that their spouses, or others close to them seem to discourage weight loss surgery. These people see your weight as part of your identity and love you regardless. Understand that this is a fear of change. Discuss your reasons for having surgery. They need to know that your health is at stake and you will be counting on them to help you during and after surgery.

- After surgery we have plenty of support for you. We offer a Rules Class Support Group lead by our surgeons. We strongly encourage all our post operative patients to attend these. There is a lot to learn, we want to help you learn as much as possible about your new tool, and how to use it.

- Attend our support group or support groups in your area or find one online that appeals to you if you cannot travel. Surround yourself with people who share your situation. Ask questions and receive answers in a supportive environment. Form a network to share recipes and exercise tips. It's important for you to know that you are not alone. There are knowledgeable, friendly people available to support and help you.

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