



THE **INSTITUTE** FOR **ADVANCED**
BARIATRIC SURGERY

ADJUSTABLE LAP-BAND
SURGERY
DIET GUIDE

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THE DIET GUIDE

This diet guide has been provided for our Lap-Band patients. The purpose of this diet guide is to provide some basic information about the Lap-Band and how to use it, as well as basic information about nutrition and the vitamins that our patients will require after surgery.

Please do not substitute this diet guide for the follow-up visits with the surgeon or the education classes provided by the office that are necessary for your success.

Please read through this guide several times prior to your surgery date, as well as our [Surgery Guide](#). There is a lot of information contained in these guides that we have asked you to read. The more you read them the more comfortable you will be with the information provided.

Our office is always available for questions, 913-322-7401.

THE RULES

We are going to get to the point right away. To succeed long term you will have to make permanent eating habit and life style changes. The Lap-Band, your tool will help you. In order to experience how the lap-Band can help you make these necessary changes to succeed not just short term but also long term you will have to follow the RULES. The Lap-Band is not the cure to morbid obesity, it is a very good tool, that we have to teach you how to use.

Lifelong dietary behavior modification is necessary to ensure both an adequate nutritional status and long term weight loss success. The Lap-Band 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. Good nutrition through balanced meals is the key. The Lap-Band will restrict how much food you can eat, but not what you eat.

Please read these nutritional guidelines carefully. These guidelines will help you maximize your weight loss success and maintain good health. The beauty of the Adjustable Lap-Band[®] operation (if following the rules) is that for the first time, you will feel full and 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 Lap-Band[®] procedure restores the satiety mechanism between the stomach and the brain, and allows effective control of food consumption. But, this does not mean that you can eat whatever and whenever. While we can control how much you eat, we still can not control what you eat. The most important component of your diet will be **PROTEIN, WATER and VITAMIN SUPPLUMENTS**. We cannot overemphasize the importance of adequate protein and water intake!

THE BAND IS A TOOL

**THE MORE YOU UNDERSTAND HOW TO USE IT
THE BETTER IT WILL WORK FOR YOU
THE MORE WEIGHT YOU CAN LOOSE**

THE RULES

THE RULES

Do not eat and drink at the same time
Always avoid drinks/liquids with calories
Choose solid-dry foods over liquid/soft foods
Do Not Eat more than 4 ounces at a time

The best analogy that we have found to help explain to patients why these rules are important is the “Sink Analogy”. We compare your Lap-Band operation to a sink. Think of your new small stomach as a very small sink, and think of the tight band as a very small sink hole. Imagine pouring liquid into such a sink – if you pour the liquid too fast it will overflow, but if you pour it slower or wait for a minute the liquid will eventually drain thru the sink hole. Now imagine putting thick, dense sludge into such a sink – the sludge may never make it down the sink hole unless we add water and stir.

ALWAYS AVOID DRINKS/LIQUIDS WITH CALORIES

The reason why this is a rule is because it does not matter how small we make your pouch (sink) or how tight we make your band (sink hole) liquids will always pass through fairly quickly without giving you any satiety or satisfaction from that liquid. But every calorie of that liquid will be absorbed. Your pouch will not stay full on liquids, you can drink a lot of liquids without being full, and you will be hungry very soon after drinking liquids.

CHOOSE SOLID-DRY FOODS OVER LIQUID-SOFT FOODS

The reason why this is a rule is because the denser the food you are able to eat the more it will plug up the sink (pouch), the longer your pouch will stay full, the less you will eat, and the better your hunger and cravings will be controlled. The thicker and denser the sludge the longer the sink stays full. If you were just to eat meat the band would work very well because meat is the densest 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 to liquefy the food as you are eating it. Do not wash the sludge down the sink hole. We want you to stop drinking about 5 to 10 minutes before your meal – to make sure the sink is empty of water before putting food in it. Once you start eating no drinking with your meal – do not liquefy the food you are eating. You will be able to eat more, and you will be hungry sooner if you are drinking while eating. Never put 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. We also do not want you to drink for at least 90minutes 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.

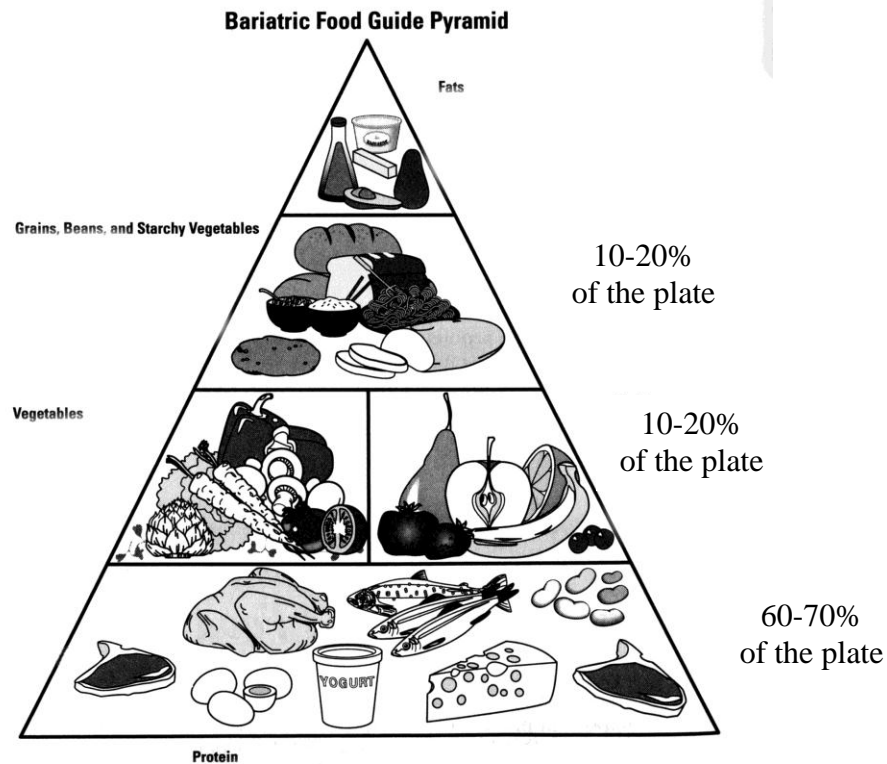
NUTRITION

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 (less than 4oz per meal). You will have successful weight loss if you follow the rules, and eat healthy and nutritious meals.

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 one cup of food per meal, your meals will have to be nutritious because you are now eating a lot less food and you have to make better food choices to stay healthy.

A diet that is lower in carbohydrates and fats, and high in quality protein is essential, along with vitamin and mineral supplementation, to lose weight successfully and stay healthy. 60-70% of your calories have to be protein, with a minimal intake of 60 to 70 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 protein, diet is the only source of these amino acids.

Below is what the Bariatric patients food pyramid looks like. At least half of every meal has to be protein (20 to 30 gm), next on your plate can be a starch, fruit or vegetable. Always eat protein first, then 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.



If you look carefully you will notice that the foods stressed in this pyramid are found on 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 fat. Also avoid going to the grocery store when hungry. When hungry the tendency is to buy more indulgent types of foods.

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 to 75 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 to 100gm of protein in one meal anymore. On average after weight loss surgery a person can only eat 20 to 30gm of protein per meal. 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 half of every meal is protein (a deck of playing cards is about 3 ounces of meat or fish) you should be able to eat 21 to 24 gm of protein per meal, ensuring at least 60gm of protein per day. By making half of every meal a high quality protein you can avoid the protein counting.

Examples of foods high in protein:

Cheese, low fat	6gm/1oz
Cottage cheese, low fat	14gm/ 4oz
Yogurt	8gm/8oz
Soy milk	7gm/8oz
2%, 1% or Skim milk	8gm/ 8oz
Evaporated skim milk	19gm/8oz can
Eggs, without the yolk	8gm /serving
Beans (chick peas, any bean.)	7-9gm/1/2cup
Tuna fish	15gm/2oz
Tofu, Tofu Rella cheese–no lactose	8gm/4oz
Meat (chicken, fish, turkey)	7gm/1oz
Seafood (shrimp, lobster, scallops..)	8gm/1oz
Peanut Butter	5gm/1tbsp

Initially, after your operation you are not allowed regular solid food. It is not because you are unable to tolerate it. It is because ***your body requires 6 weeks to form scar around the band to immobilize it, to prevent band slipping or stomach prolapse***. Band slipping and prolapse may only be correctable surgically. During these six weeks we are waiting for scar to form and mature around your band.

For the first six weeks you will be restricted to a liquid/soft diet. You will be unable to meet your protein requirements through eating familiar protein sources such as meat. It will be essential that you rely on other sources for protein example milk, yogurt and protein shakes. Below is a list of some of the available protein supplements that are high in protein and also low in sugar. These supplements will be a significant part of your diet during the first 6 weeks after surgery, and potentially for the 10 day liquid pre-op diet. Before buying large cans, we suggest that you obtain samples and test taste them first. A lot of protein shakes do not taste good.

During the **first three weeks** scar forms around your band. The first three weeks are the most critical and that is why we restrict you to a liquid diet or the “straw test diet”. During the straw test diet you are restricted to foods that can be sipped through a straw only. If you are unable to sip what you prepared thru a straw you should not be having it. Blender is very helpful. Use chicken broth to liquefy food, and apple juice to liquefy fruits.

During the **second three week** period the scar matures and strengthens. You will be allowed soft foods or foods that do not require chewing to be swallowed, the “no chew test diet”. An example of such foods would be mashed potatoes, well ground chili, runny scrambled eggs – foods that you can simply swallow without having to chew them. We encourage eating and drinking at this time to help the food pass by the band as easily as possible.

Your protein supplements during the 6 week period after your surgery do not have to be sugar free. We are not concerned with calories as much as we are with the type of foods or texture of foods you are eating. Also the rules of eating and drinking at the same time do not apply till we start adjusting your band. Drinking is encouraged so that food that you are eating is passing by the band easily. If you are put on the 10 day pre-op liquid diet – the protein supplements during that period must be sugar free. Shakes or powders high in protein but low in sugar (example: do not use Ensure or Boost). Do not buy the body building type of protein supplements, which are high in carbohydrates (sugar), not ideal for a patient during the 10 day liquid diet, but OK during the 6 week period after your surgery.

Once the 6 weeks has passed and you have had your first adjustment, following the rules becomes very important. It will be important to eat protein first, then vegetables and fruits, and last the starches and fat. The reason is your pouch is very small and we want to make sure you are able to get your protein requirements in before you fill up on other foods. After 6 wks we do not want you to use protein supplements any more. Supplements should only be a back up measure, when protein from food is not available. Remember the band works best with solid food, not liquid food. We want your protein to come from meat, fish, chicken, tuna and cheese.

Remember your protein intake has to be 60 to 75 gm/day or more for your entire life, always aim for more. If you are unable to maintain that amount of protein intake from diet alone (vegetarian or lactose intolerant), you may have to rely on a protein supplement (shakes, protein bars, etc.). We prefer protein bars over protein shakes.

The largest protein supplement selection can be found at stores like GNC, the large vitamin stores, and on the internet. WalMart has a limited selection.

SOME INFORMATION ON TYPICAL PROTEIN SUPPLEMENTS IS LISTED BELOW:

The sweeteners used in the various proteins are:
 1. Acesulfame Potassium, 2. Aspartame, 3. Fructose, 4. Stevia, 5. Sucralose (Splenda)

Brand	Size	Sugar	Cal	Prot	Carb	Fat	Dose	x/day = g	days/ can	Sweetener		
Cheramino												
	1 pt	0g	160	30g	10	0	4T	2	60	4	3	
	2 pt	0g	160	30g	10	0	4T	2	60	8	3	
Designer Protein												
	Chocolate	2.1#	<2g	180	35g	4g	3g	2sc	2	70	10	1
	Vanilla-Praline	2.1#	<2g	180	35g	4g	3g	2sc	2	70	10	1
	Strawberry	2.1#	<2g	180	35g	4g	3g	2sc	2	70	10	1
	French Vanilla	2.1#	<2g	180	35g	4g	3g	2sc	2	70	10	1
	Natural	2.1#	<2g	200	37g	4g	3g	2sc	2	74	10	1
HDT 5+1												
	Banana	6#	3g	177	28g	12g	2g	2sc	2	56	29	4 & 1
	Dutch Chocolate	6#	3g	177	28g	12g	2g	2sc	2	56	29	4 & 1
	Creamy Vanilla	6#	3g	177	28g	12g	2g	2sc	2	56	29	4 & 1
	Strawberry Delight	6#	3g	177	28g	12g	2g	2sc	2	56	29	4 & 1
IDS												
	Belgian Chocolate	5#	3g	159	34	4.5g	2	1.5sc	2	68	27	1&5
	Vanilla-Cinnamon	5#	3g	159	34	4.5g	2	1.5sc	2	68	27	1&5
Iso Pure												
	Dutch Chocolate	3#	1.5g	105	25g	1.5g	0g	1sc	2	50	22	5
	Creamy Vanilla	3#	0g	100	25g	0g	0g	1sc	2	50	22	5
	Strawberry	3#	0g	100	25g	0g	0g	1sc	2	50	22	5
Nectar												
	Apple Ecstasy	2.1#	0g	135	34.5g	0g	0g	1.5sc	2	69	12	1 & 2
	Caribbean Cooler	2.1#	0g	135	34.5g	0g	0g	1.5sc	2	69	12	1 & 2
	Crystal Sky	2.1#	0g	135	34.5g	0g	0g	1.5sc	2	69	12	1 & 5
	Fuzzy Navel	2.1#	0g	135	34.5g	0g	0g	1.5sc	2	69	12	1 & 5
	Roadside Lemonade	2.1#	0g	135	34.5g	0g	0g	1.5sc	2	69	12	1 & 5
	Strawberry-Kiwi	2.1#	0g	135	34.5g	0g	0g	1.5sc	2	69	12	1 & 2
Optimum												
	Chocolate	5#	1g	110	22g	2g	1.5g	1sc	3	66	26	1
	Vanilla	5#	1g	110	22g	2g	1.5g	1sc	2	66	26	1
ProBlend 55 *												
	Swiss Chocolate	2#	4g	135	27.5g	7g	1.5g	1sc	2	55	13	4 & 1
	Alpine Vanilla	2#	4g	130	27.5g	6g	1.5g	1sc	2	55	13	4 & 1
	Strawberry Twist	2#	4g	135	27.5g	7g	1.5g	1sc	2	55	13	4 & 1
	Mocha Cappuccino	2#	4g	135	27.5g	7g	1.5g	1sc	2	55	13	4 & 1
Pro Complex *												
	Chocolate	4.4#	.5g	130	27.5g	2g	1g	1sc	2	55	29	5 & 1
	Strawberry	4.4#	.5g	130	27.5g	1.5g	1.5g	1sc	2	55	29	5 & 1
	Vanilla	4.4#	.5g	130	27.5g	1.5g	1.5g	1sc	2	55	29	5 & 1
ProPlete Gold												
	Orange Dreamsicle	1.8#	4.5g	180	33g	6g	3g	1.5sc	2	63	9	1 & 5
	Banana Cream	1.8#	4.5g	180	31.5g	7.5g	3g	1.5sc	2	63	9	1 & 5
	Strawberry	1.8#	4.5g	180	33g	6g	3g	1.5sc	2	63	9	1 & 5
	Vanilla Pineapple	1.8#	4.5g	180	33g	6g	3g	1.5sc	2	63	9	1 & 5
	Chocolate	1.8#	4.5g	180	30g	9g	3g	1.5sc	2	63	9	1 & 5
	Choc Peanut Butter	1.8#	4.5g	180	30g	9g	3g	1.5sc	2	63	9	1 & 5

Mixed Berry	1.8#	4.5g	180	30g	9g	3g	1.5sc	2	63	9	1 & 5
ProScore 100											
Chocolate	2#	0g	160	32g	4g	2g	2sc	2	64	11	1 & 2
Vanilla	2#	0g	160	34g	<2g	2g	2sc	2	68	11	1 & 2
Protein Delite											
Alpine Milk Chocolate	1.1#	2.25g	224	29.25g	8.25g	1g	1.5sc	2	58.5	11	5
Lemon Cheesecake	1.1#	2g	150	26g	7g	1g	2sc	2	52	13.5	2
Pineapple Vanilla	1.1#	2.25g	224	29.25g	8.25g	1g	1.5sc	2	58.5	11	5
Raspberry Yogurt	1.1#	2g	150	26g	7g	1g	2sc	2	52	13.5	2
Strawberry White Chocolate	1.1#	2.25g	224	29.25g	8.25g	1g	1.5sc	2	58.5	11	5
Tropical Blast	1.1#	2g	150	26g	7g	1g	2sc	2	52	13.5	2
Vanilla Very Berry	1.1#	2g	150	26g	7g	1g	2sc	2	52	13.5	2
Pro V 60											
Banana Cream	3.5#	2.5g	155	30g	6	1.5g	1sc	4	120	20	1&2
Chocolate Thunder	3.5#	2.5g	155	30g	6g	1g	1sc	2	60	20	1 & 2
Vanilla Creme	3.5#	2.5g	155	30g	6g	1g	1sc	2	60	20	1 & 2
Strawberry	3.5#	2.5g	155	30g	6g	1g	1sc	2	60	20	1 & 2
Pure Whey Stack											
Banana Scream	5#	3.75	195	34.5g	4.5g	3.75g	1.5sc	2	69	23	5
Chocolate	5#	3	195	34.5g	6g	3g	1.5sc	2	69	23	3 & 1
Chocolate	2.2#	3	195	34.5g	6g	3g	1.5sc	2	69	11	3 & 1
Cocoa Mochaccino	5#	4.5	195	34.5g	6g	3g	1.5sc	2	69	23	5
Vanilla	5#	1.5	125	26g	1.5g	1.5g	1sc	2	52	71	1
Vanilla	2.2#	1.5	125	26g	1.5g	1.5g	1sc	2	52	31	1
Strawberry	5#	4.5	180	34.5g	5.25g	2.25g	1.5sc	2	69	23	1
Sci Fit Whey Protein											
Ice Cream Chocolate	2#	1.5g	114	22g	3g	1.5g	1sc	3	66	10	4 & 1
Ice Cream Vanilla	2#	1.5g	114	22g	3g	1.5g	1sc	3	66	10	4 & 1
Ice Cream Strawberry	2#	1.5g	114	22g	3g	1.5g	1sc	3	66	10	4 & 1
Choc. PB Cup	2#	2g	115	22g	3g	1.5g	1sc	3	66	10	4 & 1
Chocolate Strawberry	2#	1.5g	114	22g	3g	1.5g	1sc	3	66	10	4 & 1
Mochaccino Delight	2#	3g	173	30g	6g	3g	1.5sc	2	60	10	4 & 1
Plain	2#	1.5g	114	22g	3g	1.5g	1sc	3	60	10	1
Peach Sherbet	2#	2g	114	22g	3g	1.5g	1sc	3	66	10	4 & 1
Coconut Cream	2#	2g	114	22g	3g	1.5g	1sc	3	66	10	4 & 1
Ice Cream Banana	2#	1.5g	114	22g	3g	1.5g	1sc	3	66	10	4 & 1
Lemonade Smoothie	2#	2g	114	22g	3g	1.5g	1sc	3	66	10	4 & 1
Raspberry Delight	2#	2g	114	22g	3g	1.5g	1sc	3	66	10	4 & 1
Sci Fit Amino Infusion 5000											
	1qt	0g	126	30g	0g	0g	6 T	2	60	5	4
Universal Super Whey											
Orange Cream	1.5#	0g	174	35g	4g	2g	2sc	2	70	7	2
Universal Ultra Whey											
Chocolate	6.6#	4.5g	174	33g	5.25g	2.25g	1.5sc	2	66	33	2
Creamy Vanilla	6.6#	4.5g	174	33g	5.25g	2.25g	1.5sc	2	66	33	2
Ultra Pure Protein											
Frosty Chocolate	11oz	1g	170	35g	4g	1g	11oz	2	70	**	5 & 1
Vanilla Cream	11oz	1g	160	35g	2g	1g	11oz	2	70	**	5 & 1
Strawberry Cream	11oz	1g	160	35g	3g	1g	11oz	2	70	**	5 & 1
Banana Cream	11oz	1g	160	35g	2g	1g	11oz	2	70	**	5 & 1
Caramel Cream	11oz	1g	160	35g	2g	1g	11oz	2	70	**	5 & 1
Cappuccino	11oz	1g	170	35g	3g	.1g	11oz	2	70	**	5 & 1

Some other sources of protein include:

AVID Protein Bar™	20 gm/serving
New Direction™ - Plus beverage	28gm/serving
Sugar Free Carnation Instant Breakfast	12gm/serving
Atkins protein shake	18gm/serving
Non-fat dry milk	11 gm / ¼ cup
Myoplex™	25gm/serving
Avoid – Ensure™, Boost™.... they have too much sugar!	

SUGARS / CARBOHYDRATES

Avoid simple carbohydrates or white sugar/starch (refined/simple sugars/corn starch), especially in liquid form!

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 weight gain. It will not matter how small we make your pouch or how tight we make the outlet to your pouch – liquids will pass thru very quickly without giving you any satiety, but a lot of calories. None of the obesity surgery operations can protect you against weight gain if you continue to drink high calorie liquids. The surgeries are designed to work against solid foods (meat and potatoe kind of meals).

Liquid sugar and foods high in sugar should be avoided because of the high calorie count and poor nutritional value. We recommend patients to avoid simple sugar altogether and concentrate instead on protein intake. The good complex carbohydrates (complex sugars – fruits, vegetables, whole grain breads) in general should be kept to approximately 15 – 30% of your diet to avoid weight gain and maximize nutrition. The white sugar, (deserts) are the simplest form of sugar.

Recommended carbohydrates are the complex carbohydrates:

- Whole grain breads,
- Semolina pasta
- brown rice
- Fruits
- Vegetables
- Legumes – beans

FATS

Avoid fried foods, and high fat content foods. Fat is a great energy store but has low nutritional value. Below is a list of recommendations. Fat is allowed in your diet but choose wisely, fat is often found in high sugar content foods. Become a label reader.

- 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, gravy, mayonnaise or dressings to foods
- Avoid “snack foods” such as potato chips, etc.
- Sour cream has a lot less fat then mayonnaise

LIQUIDS AND SOLIDS

LIQUIDS

Everyone should drink approximately 8 (8oz) glasses of water per day about 2 liters of fluid per day. If you are thirsty or your urine is very dark with a strong odor you are not drinking enough. Use your thirst and your urine output as a guide to drinking liquids. Sip as much clear, sugar-free liquids as you can tolerate except for 5 to 10 minutes before a solid meal, during your meal and 90 minutes after a solid meal. Otherwise there are no restrictions on how much you can drink. You will also notice that you may not be able to drink a glass of water in a few seconds. It will likely take you a few minutes to drink a glass of water after the surgery.

Recommended liquids:

- Fruit juices – sugar free
- Diet Carbonated Beverages (caution!!)
- Crystal Light™ powder drinks
- Popsicles – sugar-free
- Plain coffee, tea
- Flavored diet water drinks
- Kool Aid – sugar-free
- WATER

Liquids/foods to Avoid:

Here is a list of popular foods that are filled with empty calories. The products provide mainly calories with limited nutritional value (protein, fiber, minerals and vitamins). Every bite counts after surgery. Avoid foods which contain sugar. Filling up on concentrated sweets and other simple carbohydrates can prevent weight loss and good nutrition.

- Pudding
- Ice cream
- Sweetened, fruited or frozen yogurt
- Candied fruit
- Canned or frozen fruit in heavy syrup
- Fruit juice
- Sugar coated or sweetened cereal
- Sweet rolls and doughnuts
- Sports drinks
- Popsicles
- Cakes
- Pies
- Cakes and cookies
- Jellies
- Regular soft drinks/Lemonade
- High fructose corn syrup sweetened beverages
- Sugared ice tea
- Carbonated fruit drinks
- Table sugar

- Honey
- Candy and chocolate
- Sweetened gelatin desserts
- Regular chewing gum
- Molasses
- Syrups
- Sherbet/sorbet
- Jams
- Pancakes and waffles with syrup
- Soup
- Milkshakes and chocolate milk
- Alcohol, beer
- Fancy coffee drinks
- Protein shakes

Learn to read labels. Consumption of high calorie liquids will result in poor weight loss. Limit high calorie liquids. The band does not work against liquid calories!!

SOLIDS

We have provided you with a ‘Tool’. If used properly *you will lose weight*. The ‘Tool’ is your new, small stomach, that can hold up to 4 oz. of solid food at one time. How much food you will be able to eat will depend on how solid your food choices are, how well you are following the rules. (1 Tbsp. = 0.5 oz.).

The pouch size limits the amount of solid food that can be eaten at any one time thus reducing calorie intake per meal. The very small pouch outlet controlled by the band (sink hole) keeps the food in your pouch for a long period of time, thus prolonging satiety. This is why drinking and eating at the same time is not allowed. If you drink you will flush the food out or liquefy it thus allowing it to exit faster. Your hunger will be satisfied longer if you do not eat and drink simultaneously. Often patients will say *“I feel food gets stuck, and if I just drink a little water... it goes down better”* that is cheating the band. In situations like that eat slower, chew better and choose more tender foods. Food sticks or obstructs when you eat too quickly, your bite was too big, or you did not chew it well enough. It usually occurs when you are in a hurry, in a social setting, watching TV or you simply forgot you have the lap-band now and you ate the way you used to.

The best analogy to explain how the Lap-Band works is a sink;

We have created a very small sink with a very small sink hole. Liquids of any type will pass thru the sink hole, maybe slower but eventually they will drain thru – this is why the RULE: avoid high calorie liquids applies. Liquids will not fill or stay in your pouch for long. They will not give prolonged fullness or satiety, but large quantities of calories can be consumed. Now imagine placing thick sludge into the same sink. The sludge may never empty unless water is added to it to help flush it down the sink hole – this is why the RULE: do not eat and drink at the same time and focus on solid foods as much as possible applies. Do not help mother nature to liquefy the eaten food.

Because of the small pouch size and particularly small outlet, certain foods are not well tolerated and can even cause a variety of unpleasant sensations. This is mostly because of the very small outlet to your pouch created by the band adjustments. A properly adjusted band outlet is usually the size of a

pencil eraser. Foods such as high fibrous meats (steak) and soft, doughy foods are harder to tolerate. Crispy, tender and flaky foods are tolerated the best. Warm, fresh food is tolerated better than cold, refrigerated leftovers.

The band will force you to eat less, learn to eat slower, chew better and reduce your bite size. Baby size plates and utensils are helpful to some. Inadequate chewing, fast eating or eating large bite sizes can result in pain and discomfort, and the need to bring the morsel of food back up. Intermittent need to want to bring up the last morsel of food is often caused by eating too much, too fast or not chewing your food well. Dry foods will always be more difficult than moist foods. Be sure to eat slowly, and chew. Persistent reflux should be discussed with the doctor – your band may be too tight.

Do not overeat. Stop at 4 ounces of food. Avoid stretching the pouch, and causing vomiting.

When you get hungry, eat until your pouch is full but no more than 4 ounces of food. You can significantly reduce snacking or grazing by eating meals that fill your pouch. Satiety will last significantly longer with more solid meals, and you will have better weight loss. Do not graze, or eat meals that last several hours. 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. **Simply DO NOT drink liquids with meals.** The goal is to keep your pouch distended and full for as long as possible.

FREQUENTLY ASKED QUESTIONS

CONSTIPATION

Decreased intake of food, fiber and fluid, along with iron supplementation can lead to constipation. To prevent constipation:

- Increase intake of clear, sugar free liquids
- Eat fruits and vegetables
- Increase activity
- Try prunes
- Try applesauce (low sugar)/apples
- Try high fiber cereal
- Reintroduce fruits and vegetables in your diet

If constipation persists, try a daily fiber supplement. A new fiber supplement BeneFiber™, has become available which completely dissolves in water (no glob). Try this first, otherwise Fibercon™ pills, Metamucil™, Citrucel™ or Milk of Magnesia are also available. Usually you will require 15 to 20 gm of fiber per day to become regular, after reduce regular use to 10 to 15 gm per day or every other day to stay regular. Focus on foods high in fiber such as fresh fruits or vegetables, legumes and high fiber cereals. Remember to chew all fiber-containing foods very well and increase fluid intake when eating fiber. Fiber that is poorly chewed can obstruct the pouch outlet.

Once you are on a regular diet, it will be easier to obtain fiber. Focus on foods high in fiber such as fresh fruits or vegetables, legumes and high fiber cereals. Remember chew all fiber containing foods very well and increase fluid intake when eating fiber.

ALCOHOL

Alcohol is allowed. But, remember alcohol and beer is very high in calories, and it can dehydrate the body.

SMOKING

Smoking is allowed after one month. Smoking is known to impair healing after surgery. Of course we recommend quitting smoking for numerous reasons. Smoking is known to increase pouch ulcer formation.

CAFFEINE

Caffeine is allowed. Caffeine is a diuretic, it stimulates gut motility and it increases appetite. We recommend caffeine-free and decaffeinated products.

LABEL READING

The Nutrition Facts Labels on food products list the grams of protein, fat and sugar in the product per a

serving. When reviewing labels for sugar content, avoid foods that list sugar as one of the first three ingredients listed 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 Saccharin.

When monitoring your protein intake make sure you check the label for serving size. Avoid foods containing simple sugars as much as possible. Look for approximately 10gm of carbohydrate per serving or less. Carbohydrates should not exceed more than 15% to 25% of calorie intake per 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 48 hrs. Slowly reintroduce one milk product one at a time to determine to which product you have an intolerance to. Yogurt often is tolerated.

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 not a common side effect of the Lap-Band®. Weight loss with the Lap-Band® is more gradual. If it develops it usually takes several months (4-5) before it is noted. And it can last for 2-3 months.

Hair loss can result from a low protein and zinc diet, and a severe decrease in overall nutrition intake and rapid weight loss. You must take in a minimum of 60 to 75 gm of protein per day. 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 30mg 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 can significantly improve on long-term success. 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 walking or stationary bicycle/treadmill. A podometer is a great way to monitor your increase in activity. An average person should walk 10,000 steps per day. The average American walks 2,000 - 3,000 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 exercise level. Choose something you like doing or do it with someone who exercises regularly. The doctors will be here to help you.

HINTS

LONG TERM GUIDELINES	
Eat 3 meals/day	Always eat protein foods first
Do not eat and drink at the same time	Do not drink 5-10 minutes before a meal
Do not drink at least 90 minutes after a meal	Avg. meal should last 20-25 minutes
Put your fork down between bites of food	Maximum meal size is 4 ounces
Avoid gulping foods or drink	Chew food
Baby spoon/fork and small plate can help control portion size initially	Drink sugar-free beverages (non-caloric)
Substitute sugar with Nutrasweet™, Splenda™, Sweet and Low™	Eat a minimum of 60 to 75 gm of protein per day
Take your vitamins and supplements daily	Limit juices, soda, and alcohol.
Limit every meal to less than 4 oz	Monitor protein intake for your entire life.
Avoid foods high in sugar and fat	Eat till you are full, this will eliminate snacking / grazing
Your body needs 60-75gm of protein/day to avoid muscle and hair loss	Solid meals satisfy for longer periods of time
Solid food promotes better weight loss	Dry foods may cause discomfort – slow down
Bake, broil, or grill meats. Avoid frying foods. Retain moisture in the food.	Seafood, fish and chicken are better tolerated than red meats
Marinate meat, use dry rubs	Become good friends with your grocers butcher
Buy better quality meat – more tender cuts	Shop on the perimeter of the grocery store
Do not go grocery shopping hungry	Take advantage of our support groups and nutrition classes
Persistent vomiting-reflux - call the office	Liquid and soft foods are less filling
1 Tbsp = 3 tsp = 0.5 ounces	An avg. 4 oz meal can = 450 cal
1 ounce = 28.6 grams	Avrg. three 4oz meals = 1350 cal
3 oz of protein = 21gm of protein – minimum three 3oz servings per day	Our goal for you is 1200 cal / day
Follow-up with the surgeon is a very important part to your success	Call for help early. Attend the Rules classes

DIET TIME TABLE BEFORE SURGERY

You will be asked to start a low sugar, liquid diet 10 days 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. 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 the surgery safer. Here are examples of liquids you can have during this time period. Remember to try to get in about 60grams of protein per day while on this diet. The nutritional guidelines are as follow:

A. Consume these liquids in moderation, they contain larger amounts of sugar.

1. **Juice, Gatorade®, or Powerade® – limit to 2 cups or less each day.** (*Try to choose juices lower in sugar such as apple, orange, or grapefruit*)
2. **Regular jello, popsicles, or no sugar added fudgsicles - 3 or less servings each day**
3. **1 cup of milk (skim, 1%, or 2%) or 8 oz. Light Yogurt (Dannon Light, Yoplait Light or Colombo Light) or ½ cup cottage cheese - 3 or less each day.**
4. **Atkins Shakes, Carb Solutions Shakes or any protein shake with low sugar. 60 gms a day** (These can be found at Osco, Walgreens, CVS and GNC. **DO NOT BUY:** Slim Fast, Ensure, Boost, etc.)

B. The liquids below can be taken in any amount since they do not contain sugar.

1. Sugar-free beverages such as Crystal Light, Wyler's Light, Sugar-free Kool Aid or Sugar-free Tang, diet Snapple, diet sodas, Fruit2O®, Propel®, coffee or tea with sugar substitute, or water.
2. Broth soups (all varieties)
3. Sugar-free popsicles and sugar-free jello

Attention Diabetics! *For those with diabetes we recommend consuming 15 grams of carbohydrates every 2 hours or so. Monitor your blood sugars more frequently and adjust your agents or Insulin accordingly. Be sure to contact us if necessary to help manage your diabetes during this period. If your blood sugar is more than 150, spread out the sugar sweetened liquids over a 3 hour period.*

Any liquids with 15 grams or less of carbohydrates are allowed but limited to examples:

- ¾ cup carbonated beverage, soda per day
- ½ cup orange, apple, or grapefruit juice per day
- 1 popsicle per day
- 1 cup milk per day
- 6 ounces light yogurt (Dannon Light, Yoplait Light or Colombo Light) per day
- ½ cup cottage cheese per day
- 1/3 cup regular jello per day
- ½ cup Kool Aid per day
- 1 tbsp. honey or sugar (can be used to sweeten a beverage)

DIET TIME TABLE AFTER SURGERY

The diet after a Lap-Band® is restricted for the first 6 weeks. The restriction is necessary to allow proper healing and scarring around the band to prevent band slippage or stomach prolapse, which may require surgery to correct. During this period you will be doing the opposite of what will be expected from after your first adjustment (when all the rules will begin to apply).

The 6 weeks are split in half. During the first 3 weeks you are restricted to a liquid type of diet – “Straw Test Diet” or simply put if you can drink it thru a medium straw it is allowed. During week 4 thru 6 you can advance to a puree/soft diet – “No Chew Test Diet” food that does not require chewing to swallow. After the 6th week your first adjustment may be performed. Remember the point of the first 6 weeks is to allow scarring around the band to form. To increase compliance during this period it is not necessary to further restrict your diet to low sugar/fat liquids or foods. It is more important to us that you stick with the “straw test” diet, and the “no chew test” diet, then it is to monitor calorie intake. Once adjustments start you will be fully expected to comply with all the Rules (page one).

During this period we want you to eat and drink at the same time, we want your foods to be as liquid or soft as possible. The easier the food can pass by the band or thru the sink hole the less the scarring process is disturbed.

Six weeks is a long time to go on without protein. Unfortunately during the first 6 weeks not many foods that you are allowed to eat are rich in protein. Thus we will ask you to take protein supplements during this time. Ideally low sugar protein shakes, or supplements are preferred. If you do not like the low sugar protein supplements, go ahead and drink any protein supplement that tastes good to you. Please remember you need at least 60 gm of protein per day during this 6 week period.

WEEK 1 THROUGH 3 (STRAW TEST DIET)

The day of your surgery you will be started on a clear liquid diet that has no carbonation, and is ideally sugar-free or low in sugar. You will also be given an appointment for a band study (x-ray of your band). We will restrict you to clear liquids only for the first one to two days after your surgery till you have your x-ray performed. After your x-ray a liquid is anything that can pass thru a straw (you do not need to use a straw).

To improve compliance you can get as imaginative as you want (“blenderize”), as long as what you prepare passes thru a straw. Use chicken broth to liquefy food and apple or orange juice to liquefy fruits-desserts. This time period is not really meant for weight loss as much as it is to allow the band the time it needs to scar into place. If you find it hard to adhere to a low sugar liquid diet you do not have to, during this time. It is much more important that you stay on a liquid straw diet during this time than trying to lose weight. Remember your true weight loss will not start until your band is properly adjusted. The rules start when we start adjusting your band after the 6th week.

Your goal is approximately 8 glasses (64 oz) of liquid/water daily. There is no limit on the amount of liquids that you can drink. You may want to avoid all carbonated drinks during the first 3 weeks.

Suggested 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
- Broths
- Egg drop soup – strained, no crunchy pieces
- Kool-Aid™ – sugar-free
- WATER

Suggested full liquids:

- 1% or 2%, skim milk
- Soy milk
- 1% or 2% milk drinks – no added sugar
- Protein mixes/shakes – low sugar and fat
- Protein supplements/powders – low sugar
- Cream soups– strained (no solids), low fat, low sugar
- Smoothies
- Any clear liquid – sugar free
- Thinned pudding/custard – sugar free
- Strained & thinned hot cereals
- Yogurt
- Protein shakes/drinks

Avoid pre-mixed drinks like Ensure™, Boost™, etc. (high sugar content). By sipping on these high calorie shakes throughout the day, many calories can be consumed. Because solids are not allowed, you will have to obtain your protein from protein powders/protein drinks and dairy products. Dairy products are an excellent, natural source of protein and calcium if you are not lactose intolerant during this period. Otherwise remember at least 60 to 75 gm of protein per day from shakes. Please refer to the protein section for more detail.

WEEK 4 THROUGH 6 (NO CHEW TEST DIET)

During weeks 4 thru 6, any food that does not require chewing to be swallowed is allowed. This would fall under the definition of pureed/soft foods. If the food requires chewing, don't eat it. During this period all clear and full liquids, as well as the suggestions listed below are allowed. Again the focus will be on foods high in protein, low in sugar and fat. Use your imagination (**BLENDER**).

Pureed food suggestions:

- Pureed meat/fish – low fat (chicken, turkey, hot dog)
- Jarred/canned baby foods – low sugar, low fat
- Smooth peanut butter
- Tuna fish
- Pureed over-cooked vegetables / baby vegetable jars

- Blended canned/fresh fruit (pour off the syrup)
- Baby fruit jars
- Over-cooked soups – pureed veggies/meat
- Pureed beans (chick peas, kidney beans, lentils.)
- Oatmeal, cream of wheat, grits
- Small curd cottage cheese
- Chili - very well ground
- Sloppy Joe
- Runny Scrambled eggs
- Mashed potato with gravy
- Chicken pot pie – mash the vegetables, remove the chicken

During this period solid foods should be blended or mashed to a consistency resembling applesauce. Strain all foods if lumps or particles remain after blending. Remove skins and seeds. Well cooked foods, particularly meats and vegetables, will be easier to blend. Cut foods into smaller pieces before putting it into a blender or food processor and add liquid or chicken broth to ease blending. Continue to supplement your diet with protein drinks and powders during this time to ensure a total of 60 gm of protein per day during this period.

WEEK 7 (REGULAR DIET)

No more restrictions. You may eat regular food again. The band has scarred into place and now you can resume a normal diet. Once the 6th week is completed we should be seeing you in our office for your first adjustment.

Remember maximum 4 ounce meals.

First Adjustment (Fill)

Any time after 6 weeks your first adjustment can be performed.

The adjustments or fills tighten the band around your stomach, making the outlet to your pouch smaller and smaller. The goal is a pencil eraser size outlet. As we get closer to your correct band size, you will begin to feel more and more “restriction.” By restriction we mean reduced meal portions, the need to chew food more thoroughly, a reduced bite size, and poorer tolerance or avoidance of certain foods. The correct band size means that the outlet to your new stomach is about the size of a pencil eraser. Food will have a much harder time passing through. Thus, even though you are eating smaller amounts of food, your satisfaction will last longer.

Now all the rules apply, and your active weight loss will begin.

THE RULES

Do not eat and drink at the same time
Always avoid drinks/liquids with calories
Choose solid foods over liquid/soft foods
Do not eat more than 4 oz of food at one meal

The best analogy to explain why the rules have to be followed and how the Lap-Band works is a sink; We have created a very small sink with a very small sink hole. Liquids of any type will pass thru the sink hole, maybe slower but eventually they will drain thru – this is why the RULE: avoid high calorie liquids applies. Liquids will not fill or stay in your pouch for long. They will not give prolonged fullness or satiety, but large quantities of calories can be consumed. Now imagine placing sludge into the same sink. The sludge may never empty unless water is added to it to help flush it down the sink hole – this is why the RULE: do not eat and drink at the same time and focus on solid foods as much as possible applies. Do not help mother nature to liquefy the eaten food. Your satisfaction from a single meal will be better. The best way to avoid snacking, and grazing, and to control appetite, and cravings is by eating filling solid meals when you decide to eat. When you eat a meal, eat to till your pouch is full.

Dry, tough meats, pasta, rice, and doughy foods will cause you most trouble – slow down, reduce bite and chew. You will quickly learn to chew food, reduce bite size and eat slowly once your band adjustments start. *Remember... do not drink with meals or sip water with meals. Liquids make it easier for the food to pass by the band and thus increase how much food you can eat at one meal.* Stop drinking liquids at least 5 minutes before a meal, do not drink with your meal, and do not drink again till at least 90 minutes after a meal. Drink as much as you can before your meal. This way it will be easier not to eat and drink at the same time, and go for longer periods after your meal without needing to drink.

Long term, carefully monitor the food choices you make. Protein should be about 70% of your diet, carbohydrates 15-30% of your diet and fat the remainder. Remember to eat protein foods first, and then vegetables, fruits and the starches like pasta and bread last. Half of your plate should always be protein. Eat the protein first, so you will get your protein in. Choose meats often. Learn to prepare

meats by marinating them, and buy better quality meats that are tender. We want you to like and enjoy eating meat. Here is a list of common protein sources and their protein content. Invest in a small kitchen scale at home so that you can weight out exactly how much you are eating and be able to keep better track of protein intake. For example a deck of cards is about 3 ounces of any meat (steak, pork, chicken, turkey or fish fillet) and that amounts to about 21gm of protein. A deck of cards of meat or a fish fillet with every meal will add up to 63gm of protein in one day.

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
Soy milk	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

Remember solid food works best with the Lap-Band. When you decide to eat, eat till your pouch is full (max. 4 ounces) you should not eat anymore. Eat filling meals, this will eliminate the need to snack by maintaining satiety longer.

Remember to:

Do not forget to chew your food
 reduce your bite size (dime size or less),
 and slow down (put your fork down between bites, allow 20-25min. for a meal)

An average person will require 3 to 4 adjustments at the start to start experiencing the lab-band. Adjustments can be performed every 2 weeks if you believe you are not experiencing restriction any more (portion size is greater then a 1/2cup, red meat and bread does not cause any difficulty, eating more than 3 meals per day and not loosing weight). Each subsequent adjustment will restrict better


because it is getting tighter around your stomach. While adjusting we would like to see you in the office at least once a month. Allow 2 weeks between adjustments.

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 section, 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 stock paper, fill in your name, cut the card out, and laminate it to help protect it from wear and tear.

 THE INSTITUTE FOR ADVANCED BARIATRIC SURGERY	11217 Lakeview Avenue Lenexa, Kansas 66219 913-322-7401
SPECIAL MENU REQUEST	
_____ <i>PATIENT NAME</i>	
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!	

VITAMIN GUIDE

You will be required to take a vitamin and mineral supplement for the rest of your life to prevent vitamin deficiencies. The reduced calorie intake may make it hard for you to get complete nutrition from your diet alone. We suggest a chewable or liquid-powder form of vitamin. If you decide you prefer vitamin pills, large pills should be cut into smaller pieces to avoid outlet obstruction (remember your band outlet size will be pencil eraser in size).

Below is a list of the vitamin supplements you will require. A general multivitamin with minerals and a separate calcium supplement is all you will require. There are many vitamin choices available. We understand that individuals will have different preferences, thus we are providing you with a shopping guide as well as some recommendations. If you have prescription medication, check with your doctor or pharmacist if they can be cut or crushed.

Required Vitamin Supplements:

- Multivitamin with Minerals
- Calcium with Vitamin D

MULTIVITAMIN WITH MINERALS

We recommend – One-a-Day Children’s Complete, Prenatal vitamins, or Centrum Chewable for adults. Take at least one, once a day.

If you choose a different vitamin, your choice should contain the following vitamins/minerals listed below, with the approximate total amounts of each per day:

Vitamin A	10,000 IU
Thiamine	50 mg
Vitamin C	3,000 mg
Riboflavin	50 mg
Selenium	200 mcg
Vitamin D	400 IU
Niacin	100 mg
Vitamin E	600 IU
Vitamin B6	50 mg
Vitamin K	100 mcg
Folic acid	800 mcg
Beta-Carotene	15,000I
Niacinamide	100mg
Pantothenic acid	100mg

Vitamin B12	300mcg
Biotin	300mcg
Choline	100mg
Inositol	100mg
PABA	50mg
Bioflavonoids	500mg
Hesperidin	100mg
Chromium	50mcg
Iron	8mg
Magnesium	1,000mg
Manganese	10mg
Potassium	99mg
Selenium	200mcg
Zinc	50mg

CALCIUM WITH VITAMIN D

How much calcium supplementation you will require will depend on your calcium intake from your diet. 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 recommendations:

19-50 yr old	1000mg/day
51 yrs and over	1200mg/day
Postmenopausal women	1200 to 1500mg/day

3 Extra strength Tums™ (calcium carbonate) = 900mg/day
 2 Viactiv™ Chewables (calcium carbonate) = 1000mg/day
 5 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. Avoid taking calcium and iron together, calcium interferes with iron absorption. Calcium citrate may be better absorbed than calcium carbonate by bypass, BPD and DS patents. The only brand name available with calcium citrate is Citracal™, but there are many store brand forms available, read labels.

On the next page we have provided you with two charts listing information about 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.

FOLLOW-UP

Follow-up is a very important part to your success and health. 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 lab work, and give you an opportunity to ask questions. We strongly encourage you to continue to follow-up with your primary care doctor as well. As you lose weight your medication requirements will change, and your medications will need to be adjusted, and the doctor prescribing them is the best person to help with that.

Also take advantage of our support and education programs. Monthly we offer:

- Social support groups – only patients
- Nutrition classes – lead by our bariatric dietician
- Behavior modification classes – lead by our psychologist
- Rules classes – lead by our nurse practitioner

A typical routine follow-up schedule for a Lap-Band patient would consist of:

- A Band Study post-op
- Post-op follow-up visit (1-2wks)
- Rules class (sometime during the first 6weeks)
- First adjustment (at 6wks)
- An adjustment every 2 weeks (till adjusted 3-4)
- Once adjusted a visit every month to ensure good education and progress during the first year.
- At least every 6 months during the second and potentially third year
- Long term we recommend at least once a year
- Rules class at least annually

NUTRIENT	POTENTIAL	WHAT IT DOES	WHERE IT'S FOUND	SYMPTOMS AND PROBLEMS
Vitamin D <i>ergocalciferol</i>	COMMON	calcium and phosphorus levels, calcium absorption, bone mineralization	sunlight, milk, egg yolk, liver, fish	osteoporosis, decreased calcium absorption, thyroid problems
Vitamin E <i>α-tocopherol</i>	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

NUTRIENT	POTENTIAL	WHAT IT DOES	WHERE IT'S FOUND	SYMPTOMS AND PROBLEMS
Vitamin B1 <i>thiamin</i>	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 <i>riboflavin</i>	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 <i>niacin</i>	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 <i>pyroxidine</i>	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 <i>cobalamin</i>	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 <i>retinol</i>	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

THE IMPORTANCE OF SUPPORT

The changes in your diet and lifestyle after surgery will last a lifetime. There is a lot to learn about your new “Tool”. You'll have a greater chance of long-term success if you surround yourself with people who understand and support your goals. Make sure you also read our [Surgery Guide](#), more suggestions are provided.

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 40 years of history. Direct them to our web site or others. It's important that they understand that morbid obesity is a disease and that diets don't work for you.
- 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 Nutrition and Behavior modification classes lead by a certified bariatric dietician and psychologist. 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 to make it as successful as possible. The surgeon wants to see you in the office on a monthly basis – regardless if you need or do not need an adjustment particularly early on as you are adjusting to your new band. Always let us know about your needs and we will do our best to meet them.
- 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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