



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

**GASTRIC BYPASS
SURGERY
DIET GUIDE**



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THE DIET GUIDE

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

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 Bypass, your tool will help you. In order to experience how the Bypass 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 Bypass 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 Bypass 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 Bypass will restrict how much food you can eat, but not always 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 bypass is that for the first time, you will 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 bypass 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 you like. The most important components of your diet will be PROTEIN, VITAMINS and WATER. We cannot overemphasize the importance of adequate protein and water intake!

**THE GASTRIC BYPASS IS A TOOL
THE MORE YOU UNDERSTAND HOW IT WORKS
THE BETTER YOU CAN MAKE IT WORK FOR YOU
THE MORE WEIGHT YOU CAN LOOSE**

THE RULES

Do not eat and drink at the same time
Always avoid drinks/liquids with calories
To avoid snacking/grazing, eat meals that fill your pouch
Choose solid foods over liquid/soft foods

The best analogy that we have found to help explain to patients why these rules are important is the “Sink Analogy”. We compare your Bypass operation to a sink. Think of your new small stomach (pouch) as a very small sink, and think of the small outlet 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 small we make the outlet (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. Intestine does not need digestive enzymes to absorb sugar.

CHOOSE SOLID 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 bypass 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 15 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.

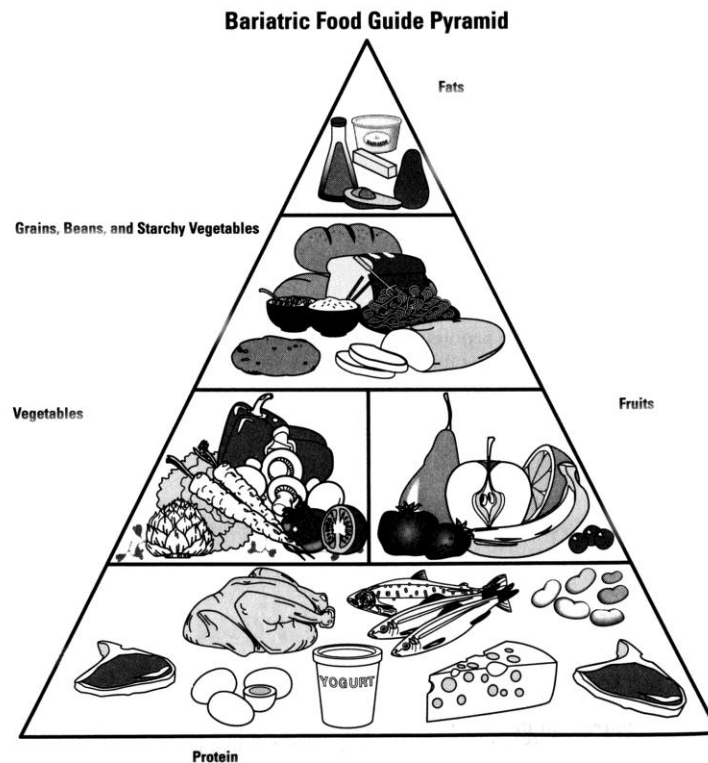
NUTRITION

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. 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 very little food and you have to make better food choices to stay healthy.

A diet that is low in carbohydrates and fats, and high in quality protein is essential, along with vitamin and mineral supplementation, to lose weight successfully and stay healthy. 70% of your calories have to be protein, with a minimal intake of 60 to 75 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 should be a 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 aisles 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

Because your stomach will be very small after surgery, it will be important to eat **protein first**, and **then vegetables, breads or fruits**. After 6 to 8 weeks you may not require these protein supplements. It will depend on how quickly your diet advances. Obtain a paperback book that lists protein and sugar content 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 70 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 GNC stores, at the large vitamin stores, fitness stores, and on the internet. Wal-Mart has a limited selection.

Some information on available 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
Weider Nutrition Whey Protein Isolate											

Tropical Punch	2#	0g	120	26g	4g	0g	1/3c	2	52	15	1 & 2
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Some Other sources of protein:

AVID Protein Bar™	20 gm/serving
New Direction™ - Plus beverage	28gm/serving
Sugar Free Carnation Instant Breakfast	12gm/serving
Non-fat dry milk	11gm / ¼ cup
Atkins shake	18gm/serving
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! Simple sugars, particularly in the liquid form are known to cause the Dumping Syndrome and 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 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).

Sugar and foods high in sugar should be avoided for two reasons: **Dumping Syndrome** and high calorie intake. Dumping occurs because simple sugars are absorbed very quickly by the small intestine (remember you do not have a normal stomach that controls how much food enters the small bowel anymore). This fast absorption of simple sugars can cause an intense feeling of being ill associated with potential symptoms such as: abdominal cramping, nausea, general weakness, pale skin, dizziness, fast heart rate, cold sweats, lightheadedness and/or diarrhea. Dumping can last 30 to 60 minutes and often causes patients to feel so weak and ill that they are forced to lie down until the episode subsides. If this occurs lie down till the feeling goes away, and avoid that food or dilute its sugar content.

Because sugar is so poorly tolerated, 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.

Recommended complex carbohydrates:

- Cereal
- Whole grain – breads, pasta,
- Brown rice
- Potato
- Fruits
- Vegetables
- Legumes – beans

FATS

High fat foods, like sugar, can cause the Dumping Syndrome. The most common symptom is diarrhea. To minimize potential side effects 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.

LIQUIDS

To stay hydrated you will need to drink clear liquids almost constantly. 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 15 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 clear liquids:

- Fruit juices – sugar free
- Carbonated Beverages (allow them to go flat) – sugar free
- Crystal Light™ powder drinks
- Popsicles – sugar free
- Caffeine-Free – coffee, tea (first 6weeks)
- Strained / broth soups
- Kool-Aid – sugar free
- WATER

Please note, your liquids have to be low in sugar or sugar free. Chose juices that are 100% fruit juice with no added sugar. Consumption of high calorie liquids will result in poor weight loss. Limit high calorie liquids (example: juices to 4oz/day).

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 clear liquids you can take.

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

SOLID FOODS

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 to 8 oz. of solid food at a time. How much food you will be able to eat will depend on how solid your food choices are. (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 (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. 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 bypass now and you ate the way you used to.

The best analogy to explain how the Bypass 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.

Once again, because of the small pouch size, certain foods are not well tolerated and can even cause a variety of unpleasant sensations, gastrointestinal distress, and an undesirable phenomenon known as dumping. 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.

As you advance your diet to soft/puree solid food and then regular solid food, you will need to learn to *eat slowly* and *very small bites* (a teaspoon at a time). You will also need to *chew your food well*, down to a paste consistency. The small stomach that you now have cannot churn or breakup food the same way the normal stomach did. Thus chewing food thoroughly is very important to avoid vomiting and feeling ill. Inadequate chewing or eating large servings can result in pain, nausea, vomiting and pouch stretching over time.

The bypass 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.

When you get hungry, eat until your pouch is full. 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

FIBER AND CONSTIPATION

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

To prevent constipation:

- Drink large amounts of clear, sugar-free liquids
- Exercise, stay active
- Try baby food prunes or juice (low sugar)
- Try applesauce (low sugar), or an apple
- Try oatmeal
- 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. Fiber that is poorly chewed can obstruct the pouch outlet.

ALCOHOL

After time, alcohol is allowed, but it can cause potential problems. The new pouch empties alcohol into small intestine much faster than your normal stomach used to. The alcohol effect is thus much faster and more toxic. Your alcohol blood level will also be higher than a normal persons, even though both might consume the same amount. Alcohol is also very high in calories, and it can dehydrate the body.

SMOKING

Smoking is allowed after three months. Smoking is known to impair healing after surgery. We recommend quitting smoking for numerous reasons. Smoking in bypass patients increases pouch ulcer formation.

CAFFEINE

Caffeine is allowed after one month. Caffeine is a diuretic, stimulates gut motility and it increases appetite. We recommend caffeine-free and decaffeinated products particularly if you are having trouble staying hydrated.

LABEL READING

The Nutrition Facts Label on food products list the grams of protein, fat and sugar in the product per 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 20% of calorie intake.

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 if you have tolerance to any or none milk products.

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. 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 70 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 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 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 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.

There are three phases to weight loss after bypass 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 contributes something, but you will need to start to interact in terms of weight maintenance. Exercise is an excellent way. Following the rules with a nutritious, well balanced diet, with protein as the main focus is another.
- 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.

HINTS

Long Term Weight Loss Surgery Guidelines for Success

Eat 3 meals/day	Always eat protein foods first
Do not eat and drink at the same time	Do not drink 15 minutes before a meal
Do not drink at least 90 minutes after a meal	Avg. meal should last approx. 20min
Put your fork down between bites of food	Eat slowly, reduce bite size, chew very well
Avoid gulping foods or drink	Liquid and soft foods are less filling
Reflux – call if persistent, are you overeating?	Stay away from sugar and fat
A Baby spoon/fork and plate can help control portion size	Drink sugar-free beverages (non-caloric)
Avoid using a straw	Eat a minimum of 70 gm of protein per day
Take your vitamins and supplements daily	Limit juices, soda, and alcohol
Avoid carbonated drinks	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
Frequent snacks slow weight loss	Your body needs 60-70gm of protein/day to avoid muscle and hair loss
Dry foods may cause discomfort	Eat moist foods – but do not eat and drink at the same time
High fat foods and lactose intolerance can cause diarrhea	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?
¼ cup = 2 ounces	Bake, broil, or grill, avoid frying
60% of each meal should be protein	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!
Crab and fish are usually well tolerated	Well cooked dark chicken or turkey are well tolerated
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	2 cups = 16 ounces = 1 pint = 475 ml

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 surgery 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. 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. 1-2 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 examples:

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

DIET TIME TABLE AFTER SURGERY

The diet after gastric bypass surgery progresses through several stages. Regardless of the diet stage, you will always need to consume clear liquids, except 15 min before a meal and 90 min after a meal. The Do not drink liquids with meals rule starts when you are eating solid food.

DAY 1 THROUGH DAY 3 (CLEAR LIQUID DIET TRIAL)

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. Stay on the clear liquid diet for at least 3 days. After the 3rd day you may advance to a full liquid diet.

The goal is 8 glasses (64 oz) of liquid/water daily – taken 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. Initially, water is tolerated better than juice. If you take medications on a regular basis – they have to be cut or taken in liquid form.

Avoid all carbonated drinks and citrus juices (orange, tomato and grapefruit) during the first 4 weeks. Maintain your diet log. It is best to dilute other juices by 50% with water.

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

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

A full liquid diet consists of sugar-free, low fat milk products, protein supplements and 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 without feeling full.

Protein will be the most important nutrient that you will concentrate on during this period. The goal will be a minimum of 70 gm of protein per day. 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. If you are intolerant of dairy products you will have to substitute with protein drinks and

powders. Please refer to the protein section earlier for more details. Flavored protein powders may be mixed with clear liquids or milk, non flavored protein powders can be mixed with your meals (after 3 weeks) to increase your protein intake when needed.

To improve compliance you can get as imaginative as you want (“blenderize”), as long as what you prepare passes thru a straw.

Recommended 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
- Any clear liquid – sugar-free
- Thinned pudding/custard – sugar-free
- Strained & thinned hot cereals
- Yogurt

It is recommended that you begin drinking a protein drink regularly during this time. Total protein intake per day should be 70 gm/day. The degree of hair loss that you will experience can be directly proportional to your protein intake.

Remember to stay hydrated, drink clear liquids constantly, 8 glasses per day, if you are leaving the house bring a water bottle with you.

WEEKS 3 THROUGH 5 (PUREED DIET TRIAL)

You may now begin to eat pureed and very soft foods. If you can chew it, don’t eat it. These include all items listed as clear and full liquids, and the items listed below. Again the focus will be on foods high in protein, low in sugar and fat. Always eat protein rich foods first then, fruits and vegetables.

Recommended pureed-very soft foods:

- Pureed meat/fish – low fat (chicken, turkey, hot dog)
- Jarred/canned baby foods – low sugar, low fat
- Smooth peanut butter
- Tuna fish in water – low fat mayonnaise/sour cream
- Pureed over-cooked vegetables / baby vegetable jars
- Blended canned/fresh fruit (pour off the syrup)
- Baby fruit jars
- chili
- Chicken pot pie
- Mashed potatoes
- Over-boiled soups – pureed veggies/meat
- Beans (chick peas, kidney beans, lentils)
- Oatmeal, cream of wheat, grits

- Cottage cheese

During this period all solid foods must be blended to the consistency of *smooth 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 to ease blending. Start with 1oz portions.

Over a few weeks your pouch capacity will increase. Stop eating as soon as you feel full! Eat protein foods first. Then, if you are not full, try vegetables or fruits. Rule - **Do not eat to the point of nausea, vomiting or pain**. Continue to supplement your diet with protein drinks and powders during this time to ensure a total of 70 gm of protein per day while you are adjusting to your new diet.

Now that you will be starting pureed foods, it will be important to start practicing the do not eat and drink at the same time rule.

DO NOT DRINK fluids 15 minutes before a meal and at least 90 minutes after a meal.

WEEKS 6 THROUGH 8 (SOFT DIET TRIAL)

You may now begin a trial of soft foods. This diet includes all previous items listed as liquids, puree and the items listed below. Try one new food at a time, in very small servings. 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 again.

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 drinks and powders to ensure an intake of 70 gm of protein per day.

Recommended soft foods:

- Baked white fish (no bones)
- Tuna fish / crab / lobster
- Well cooked chicken / turkey (dark meat)
- Canned fruits
- Bananas
- Eggs (protein is in the whites, not the yolk)
- Well cooked vegetables (no corn) – remove skin and seeds
- Potatoes
- Scrambled eggs

Though the foods are soft you have to remember to chew any solid food to the consistency of paste before swallowing. Avoid tough meats such as steak and beef, these are usually the hardest foods to tolerate. Avoid nuts, seeds, high fiber foods – raw vegetables, fresh fruits, bran flakes. Moist foods are better tolerated than dry foods.

WEEK 9 (REGULAR DIET TRIAL)

The “regular” food trial period begins. As you progress to a normal diet, you will need to carefully monitor the food choices you make. Remember eat protein first, then vegetables, pasta and fruits etc. Continue with the soft diet while slowly introducing new regular foods. Continue to cook the meats and vegetables till soft. Start with very small servings (teaspoon) and chew the food very well before swallowing. You will also need to slow down. Introduce one new food each day.

- If necessary, supplement your meals with extra protein powder to ensure adequate protein intake while adjusting to regular food.
- Do not eat and drink at the same time anymore. No liquids 15 minutes before a meal and no liquids at least 90 minutes after a meal.
- When you decide to eat, eat till your pouch is full and you can not eat anymore. Eat filling meals, this will eliminate the need to snack by maintaining satiety longer.
- Remember to stay hydrated, if you are leaving the house bring a water bottle with you.
- You may also begin taking your pills whole again. Large pills the size of regular vitamins will still need to be cut into smaller pieces prior to swallowing.

Foods hardest to tolerate are red meats, bread, pasta, rice and the membrane of citrus fruits. Toasted bread is better tolerated than non-toasted.

The muscle fiber found in red meat can be difficult to chew and can block the outlet of the new stomach pouch. Remember chew *very well* before swallowing. The slower you chew your food, especially red meat, the better it will be digested and the less chance a blockage will be created. If you do not tolerate a food the first time, try it again in a few weeks.

Crispy foods: These are allowed after 6 weeks. Crispy becomes MUSH when wet. These include saltines, toast, corn flakes, Rice Krispies cereal.

Crunchy foods: We recommend that you avoid these items altogether. If you choose to have them, wait at least till your 3rd month. Make sure you chew the food very well before swallowing. Again we recommend avoiding them; crunchy does not become MUSH, and it can get stuck in your pouch and ulcerate or perforate. Raw vegetable fiber, even though chewed does not dissolve and can potentially obstruct. These include: corn chips, potato/tortilla chips, taco shells, nuts, seeds, carrots, celery, grain – incompletely ground.

Long Term Diet

Once you are tolerating regular foods without problems The Rules have to be followed to achieve the weight loss you desire.

THE RULES

Do not eat and drink at the same time
Always avoid drinks/liquids with calories
To avoid snacking/grazing, eat meals that fill your pouch
Choose solid foods over liquid/soft foods

The best analogy to explain why the rules have to be followed and how the Bypass works is the 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. You will quickly learn to chew food well, reduce bite size and eat slowly. *Remember... do not drink with meals or sip water with meals. Liquids make it easier for the food to pass by the pouch and thus increase how much food you can eat at one meal.* Stop drinking liquids at least 15 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
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

Remember solid food works best with the bypass. When you decide to eat, eat till your pouch is full and you can not eat anymore. Eat filling meals this will eliminate the need to snack by maintaining satiety longer.

Remember to:


chew very well before swallowing,
 reduce your bite size (teaspoon),
 and slow down (put your fork down between bites)

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.

<p style="text-align: center;"> THE INSTITUTE FOR ADVANCED BARIATRIC SURGERY <small>The Premier Hospital for Comprehensive Bariatric Care</small></p> <p style="text-align: center;">SPECIAL MENU REQUEST</p> <hr/> <p style="text-align: center;"><i>PATIENT NAME</i></p> <p style="text-align: center;">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!</p>

VITAMIN GUIDE

You will be required to take vitamin and mineral supplements *for the rest of your life* to prevent vitamin deficiencies. The reduced calorie intake will make it hard for you to get complete nutrition from your diet alone. You have to take high potency vitamins and even exceed the minimum Recommended Daily Allowance (RDA) to compensate for any malabsorption. 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 have to be cut into smaller pieces.

Below is a list of the vitamin supplements 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. You will not be able to find a single vitamin pill with everything in it that you will require. Calcium, B₁₂ and iron are usually taken separately.

You will also require a lab check approximately every three months for the first year and then yearly or as needed, to ensure adequate vitamin intake.

Required Vitamin Supplements:

- Multivitamin with minerals
- Iron (menstruating females only)
- Vitamin B₁₂
- Calcium

MULTIVITAMIN WITH MINERALS

We recommend – One-a-Day Children’s Complete™, Prenatal vitamins or Centrum™ Chewable for Adults. For the first 2 months take one, twice a day. After 2 months take one a day, unless otherwise instructed.

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. Take 2 per day for the first 2 months, then one per day unless otherwise instructed.

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
Copper	3mg
Iron	8mg
Magnesium	1,000mg
Manganese	10mg
Potassium	99mg
Selenium	200mcg
Zinc	50mg

Feel free to explore the internet for vitamins. Many claim to be designed for the gastric bypass patient. Shop cautiously!

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 fumarate may be better absorbed by gastric bypass patients than 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 B₁₂

Vitamin B₁₂ is recommended to avoid pernicious anemia, which can develop silently. Start taking it one month after your surgery. You may choose between Sublingual Vitamin B₁₂ (under the tongue) 500mcg once a day (available at GNC) or B₁₂ injections -1000mcg once per month (must be prescribed by MD).

CALCIUM

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 recommended doses:

19-50 yr old	1000 mg/day
51 yrs and over	1200 mg/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. Gastric bypass patients may absorb calcium citrate 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.

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 programs. Monthly we offer:

- a social support group – only patients
- nutrition classes – lead by our bariatric dietician
- behavior modification classes – lead by our psychologist

A routine follow-up schedule for a Bypass patient would consist of:

- A visit the next day after discharge
- 7-10 day Post-op follow-up visit for drain removal
- every month for 6 months
- Every 2-3 months over the next 6 months.
- At least every 6 months during the second year
- Long term we recommend bi-annually or at least once a year

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

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

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 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.
- Attend our support group or support groups in your area or visit them online. Your surgeon's office will help you here. 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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