104 pounds lighter.
Tons healthier.
A million times happier.

## Complete Nutrition Guide for Bariatric Surgery

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## Introduction

Bariatric surgery, whether it is Vertical Sleeve Gastrectomy or Roux-en-y Gastric Bypass (RNYGB), is a life changing procedure. Vertical Sleeve Gastrectomy restricts the amount of food the stomach can hold by creating a thin, vertical sleeve in the stomach. The sleeve is about the size of a banana. RNYGB uses both restrictive and absorptionblocking methods for weight loss. By bypassing most of the stomach and part of the small intestine, less area to store food is created. This leads to eating fewer calories and a risk of vitamin deficiencies.

Since all surgeries require change to the structure and function of the stomach, it's important that you follow proper dietary stages. What is eaten must be 'nutrient-dense' and well tolerated. Careful planning and daily supplements are required for adequate health maintenance. Bariatric surgery not only changes eating habits, but requires behavioral changes as well.

You need to adjust the amount of food eaten before and after surgery to help achieve weight loss goals. This education guide covers several important topics.

- Basic nutrition and tips for reducing fat
- Nutrition expectations prior to bariatric surgery
- Potential complications and their solutions
- Protein and vitamin guidelines
- Stages of the post-surgery bariatric diet
- Sample menus
- Grocery list
- Tips for dining out
- Readiness checklist

REMEMBER: It's a good idea to read through this guide several times before surgery. This will help you feel more confident and prepared.

## Nutrients

## My Nutrient Needs

Meal plan for: $\qquad$
Calories: $\qquad$ Fat: Sodium: $\qquad$
Carbohydrates: $\qquad$ Protein: $\qquad$

My goals: $\qquad$
$\qquad$
$\qquad$

## Sample Meal Plan

Breakfast:
Dinner:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
A.M. Snack:
P.M. Snack:
$\qquad$
$\qquad$
$\qquad$

Lunch:
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Nutrients are essential for life.
There are six main groups of nutrients in food:

1. Carbohydrates include starch, sugars, and fiber. Starch and sugar both break down into glucose (the sugar in our blood). Glucose is what the body uses for energy and it is the brain's main source of energy. Limit intake of simple carbohydrates such as sugary foods and beverages, white breads, white rice and white pasta, and choose carbohydrates that contain fiber such as fruits, vegetables and whole grains.
2. Protein is an important part of healing and maintaining body cells. Protein is also used to build skin, hair, organs and muscle tissue. The body needs a certain amount of protein daily to stay healthy.
3. Fat cushions body organs, protects nerve cells and absorbs fat-soluble vitamins. Although some fat is needed by the body, remember that high fat foods are also high in calories. Greasy foods often aren't tolerated after bariatric surgery.
4. Vitamins don't provide calories (energy) for the body, but they are important. Vitamins play a key role in every chemical process that happens in the body. This means that even though vitamins can't be converted into energy, they are used to help create energy. The vitamins are: $A$, Thiamin (B1), Riboflavin (B2), Niacin (B3), B6, B12, C, D, E, K, Folate, Pantothenic acid and Biotin.
5. Minerals don't provide energy for the body, but do play an important role in it's chemical processes. The difference between minerals and vitamins is their size.
Minerals are much smaller than vitamins. The minerals that the body needs are: Calcium, Phosphorus, Potassium, Sulfur, Sodium, Chloride, Magnesium, Iron, Zinc, Copper, Manganese, lodine, and Selenium.
6. Water is essential. Most people need at least 6-8 cups of water daily. If your body does not get enough water it can become dehydrated. Symptoms of dehydration include: fatigue, weakness, poor memory, increased cravings and irritability.


## Tips for Limiting Sugary, Greasy and Processed Foods

It is important to limit greasy and sugary foods as these foods can cause dumping syndrome in RNYGB and are overall not tolerated well in gastric sleeve patients. Choose foods low in added sugars and avoid fried foods.

| FOOD GROUP | Better Choices <br> (choose more often) | Less Healthy Choices <br> (choose less often) |
| :--- | :--- | :--- |
| Grains, <br> breads, <br> cereals, <br> starchy <br> vegetables | Whole-grain toast, whole-grain <br> cereals and crackers, whole wheat <br> pasta, whole-wheat English muffin, <br> pretzels, oatmeal, grits, cream of <br> wheat, corn, peas, potatoes, beans, <br> whole grain tortillas, hummus, | Muffins, biscuits, cornbread, <br> granola, French fries, <br> croissants, high-fat snack <br> crackers, potato chips, candy, <br> pastries, cakes, cookies |
| Fruits | All fruits tolerated, canned fruits <br> in water or their own juice. | Fruits canned in heavy syrup, <br> fruit cobblers, more than |
| Vegetables | All vegetables tolerated, of fruit juice <br> 100\% vegetable juice | Au-gratin vegetables, <br> fried vegetables or prepared <br> with cheesy sauces |
| Milk, yogurt | Milk, plain yogurt, no added <br> sugar yogurt | Yogurt with added sugar, <br> ice cream |
| Protein (meats <br> and meat <br> substitutes) | Baked, broiled, stir-fried, grilled <br> chicken, fish, turkey, pork, beef, <br> eggs, cottage cheese, non- <br> processed cheese, beans, peanut <br> butter, tofu | Fried meat, fish, and poultry, <br> bologna, hot dogs, bacon, <br> sausage, processed cheese <br> (American), bratwurst, |
| salami |  |  |

*High-fat foods (especially greasy foods) and simple sugars can cause dumping syndrome for patients who have RYGB.

## Fats

Monounsaturated sources - choose most often: olive oil, canola oil, peanut oil, olives, peanut butter (natural is best), avocado, oily dressing, flaxseed (ground), spray or tub margarine.

Saturated sources - use sparingly as they can lead to heart disease and high cholesterol: butter, cream, cream cheese, sour cream, shortening, bacon, sausage, coconut, coconut oil and palm oil.

## Protein Guidelines

To eat enough protein each day, it's important to include a good source at each meal. You must have at least 60-80 grams of protein each day, or as instructed by your dietitian. This will help prevent the body from losing muscle mass. There is no need to continue protein drinks if you are able to eat enough through solid foods. Remember, liquids will not stay in the stomach pouch very long, which will make you hungry faster than you should be.

## Good Protein Choices

PROTEIN SOURCE
Any 1 oz. of meat (chicken, turkey, fish, pork, beef*)
GRAMS PROTEIN
3 oz. of meat (chicken, turkey, fish, pork, beef*) 21 grams
$1 / 4$ cup tuna fish in water 7 grams
1 oz. seafood (shrimp, lobster, scallops, crab) 8 grams
1 egg or 2 egg whites or $1 / 4$ cup egg substitute 7 grams
$1 / 4$ cup non-fat or low-fat cottage cheese 7 grams
1 oz. low-fat cheese 7 grams
6-8 oz. light, fat-free yogurt 8 grams
1 Tbsp. peanut butter 5 grams

| 4 oz. light tofu | 8 grams |
| :--- | :--- |
| $1 / 2$ cup beans | 8 grams |

8 oz. skim or 1\% milk 8 grams
8 oz. low-fat and lactose-free soy milk 6 grams
8 oz. lactose-free milk** 8 grams
4 oz. evaporated skim milk 9 grams
6 oz light, non-fat Greek Yogurt 12 grams
*Red meat may not be tolerated due to low acid production in the pouch. Wait six months after surgery before trying red meat.
**Lactose is a natural sugar found in cow's milk. Some people do not make enough of a certain enzyme to break down lactose, and will feel bloated, have gas pains, and/or diarrhea after drinking regular cow's milk. If any of these symptoms exist or develop either before or after surgery, it is necessary to switch to lactose-free milk or low-lactose products on this list.

## Nutrition Expectations

## Prior to Bariatric Surgery

Lifestyle changes are encouraged to improve health before surgery, help you tolerate surgery better and provide for a successful recovery period. Permanent lifestyle changes are needed for success after surgery, which is why it's important to start making changes now.

- Begin keeping a food log. Record foods and drinks, portion sizes, time, mood, location and hunger level.
- Include fruits, vegetables, whole grains, lean protein and low-fat dairy to have a well-balanced meal plan prior to surgery.
- Limit or eliminate simple sugars and high fat foods.
- Begin the day with breakfast to boost metabolism and reduce hunger.
- Eliminate alcohol. It can cause diarrhea, add excess empty calories, cause metabolism changes (with RYNGB) and introduce the risk of addiction.
- Eliminate carbonated beverages due to their diuretic effect. Excess gas produced can bloat and stretch your pouch.
- Eliminate straws because they can cause gas due to swallowed air.
- Eliminate caffeine because it can stimulate appetite, add empty calories and cause diarrhea.
- Stop smoking and all forms of tobacco use.
- Choose only water and sugar-free, decaffeinated, non-carbonated beverages.
- Drink 48-64 ounces (6-8 cups) non-carbonated, decaffeinated fluids daily.
- Practice taking very small bites/sips of foods and beverages (use small utensils and small plates).
- Chew foods thoroughly (30 times) to the texture of applesauce before swallowing.
- Practice eating and drinking very slowly. Take at least 20-30 minutes to finish eating a meal. Set fork down between bites of food to slow eating pace.
- Practice not drinking with meals: See section on sugar and lifestyle changes.
- The doctor will require a full liquid diet two weeks prior to surgery to shrink the liver.
- Attend support group meetings and educational sessions to prepare for surgery.
- Manage blood sugars.


Practice taking very small bites of food and sips of beverages. Use small utensils and small plates.

## Surgery and Lifestyle Changes



## Useful Tools for Weight Loss

Remember, bariatric surgery is a tool that helps make the necessary lifestyle changes for weight loss. It doesn't guarantee lifestyle changes. The surgery makes the stomach into a small pouch. The new pouch, along with behavior changes, helps with portion control. Below are helpful rules to make the tool work. If the rules and other dietary guidelines in this guide aren't followed, complications or problems can occur after surgery.

## Rules for Weight Loss:

- Eat three meals a day and one or two snacks (if needed). Snacking too much between meals adds extra calories. This will slow weight loss, cause weight regain, or result in a weight loss plateau. When used wisely, snacks can help you meet your protein goals and can control hunger between meals.
- Always stop eating or drinking as soon as you feel satisfied.
Eating past the point of fullness will cause the pouch to stretch/slip depending on surgery performed. It may also cause vomiting.
- Eat slowly and chew food thoroughly. If a meal is eaten too fast it may become hard to feel satisfied before it's too late. This may lead to overeating, vomiting or possible blockage.
- Do not drink with meals.

Drinking will flush food quickly through the pouch and/or lead to overeating at meals. Avoid drinking fluids 10-15 minutes before meals (sleeve patients may drink up to the meal). Also avoid drinking during meals and 30-60 minutes afterwards.

- Do not drink liquids with calories except for milk and protein drinks. Liquids that contain calories include regular soft drinks, sports drinks, sugary fruit drinks, sweet tea, and coffee with sugar.
- Avoid caffeinated, carbonated, and/or alcoholic beverages. This includes coffee, tea, bubbly drinks and any alcohol.
- Always eat the protein source first at meals. This will help you get the required protein recommendations.
- Choose healthy, nutrientdense foods. The quality of food you eat is more important after surgery because the amount is much smaller.
- Take all necessary supplements daily; see Supplement Guidelines: and Vitamins, pp. 14-17.
- Exercise regularly or as recommended by the physician or exercise physiologist.


## Supplement Guidelines

## Protein

The following protein drinks, bars and other products can be used to help you reach 60-80 grams of protein daily. The following supplements may be found at area stores or ordered online. See guidelines for choosing supplements on the next page.

High Protein Drinks and Shakes:

- EAS® Carb Control drinks and whey powders
- GeniSoy ${ }^{\circledR}$ Products: MLO Super High Protein powder, MLO Brown Rice Protein powder, MLO Milk and Egg Protein powder, MLO Vegetable Protein powder
- UNJURY ${ }^{\text {TM }}$ Protein powders and broth for bariatric surgery patients
- Optimum ${ }^{\circledR}$ Protein Diet Shakes
- Bodytech ${ }^{\circledR}$ Whey Pro 24
- Premier ${ }^{\circledR}$ whey protein powders or ready to drink
- 1st Phorm ${ }^{\circledR}$ Level-1
- Zero Carb Isopure ${ }^{\circledR}$ powders and drinks and Perfect Whey Protein powder
- Pure Protein ${ }^{\circledR}$ whey powders
- Garden of Life ${ }^{\circledR}$ raw protein


## High Protein Bars:

- GeniSoy ${ }^{\circledR}$ Low Carb Crunch Bars
- Slim-Fast ${ }^{\circledR}$ High Protein Meal Bars
- Premier ${ }^{\circledR}$ protein bars
- Quest ${ }^{\circledR}$ protein bars


## Unflavored High Protein

Powders:

- Beneprotein ${ }^{\circledR}$
- GeniSoy ${ }^{\circledR}$ Ultra XT

Soy Protein

- UNJURY ${ }^{\top M}$ unflavored protein powder for bariatric surgery patients
- GNC ${ }^{\circledR}$ Pro Performance 100\% Whey

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Serving Size 1 Cup (228 g) |  |  |  |
| Servings Per Container: 3 |  |  |  |
| Amount Per Serving |  |  | Served |
| Calories 90 | Calories from Fat 30 |  |  |
| \% Daily Value |  |  |  |
| Total Fat 3 g |  |  | 5\% |
| Saturated Fat 0 g |  |  | 0\% |
| Cholesterol 0g |  |  | 0\% |
| Sodium 300 mg |  |  | 13\% |
| Total Carbohydrate 10g |  |  | 4\% |
| Dietary Fiber 3g |  |  | 12\% |
| Sugars 3g |  |  |  |
| Protein 30 g |  |  | 22\% |
| Vitamin A 80\% - Vitamin C 60\% |  |  |  |
| Calcium 4\% • Iron 4\% |  |  |  |
| Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs: |  |  |  |
|  | Calories | 2,000 | 2,500 |
| Total Fat | Less than | 65 g | 80 g |
| Sat Fat | Less than | 20 g | 25 g |
| Cholesterol | Less than | 300 mg | 300 mg |
| Sodium | Less than | $2,400 \mathrm{mg}$ | $2,400 \mathrm{mg}$ |
| Total Carbohydrate |  | 300 g | 375 g |
| Dietary Fiber |  | 25 g | 30 g |

## Guidelines for Choosing Supplemental

## Protein Sources:

- Protein drinks and shakes: 20-35 grams protein per serving. Milk can be used with powdered protein to increase the total protein value. Protein bars: 10-20 grams protein per serving
- Total carbohydrates: 10 grams or less per serving
- Products should be low in sugar, five grams or less per serving
- Total fat: five grams or less per serving

Because you're eating smaller amounts of food after surgery, getting enough vitamins may be difficult.

## Vitamins

Because you are eating smaller amounts of food after surgery, getting enough vitamins may be difficult. It is recommended that all bariatric patients take some form of vitamin supplement after surgery. Chewable or liquid supplements are absorbed best.

## Multivitamin: <br> All bariatric patients

- For specific brands, dosage and frequency, see a dietician for a current list.
- Avoid taking multivitamins at the same time as calcium to avoid absorption problems.
- Do not take gummy vitamins.
- Do not take a 50 plus multivitamin.


## Calcium citrate with Vitamin D:

 All bariatric patients- Take two or three per day (at least $1000 \mathrm{mg} /$ day); no more than 600 mg at a time, separately from multivitamin.
- Calcium Citrate is best absorbed for both surgery types.


## Vitamin B12:

## Gastric Bypass patients

- Sublingual Vitamin B12: 1000 mcg twice weekly
- OR Intramuscular injection of B12: 1000 mcg per month (must be prescribed by MD)


## Biotin:

## Most patients

- 1000 mcg per day

REMEMBER: Herbal supplements are not recommended because they can interfere with some medications and may have blood thinning properties

Sample Vitamin Regimen: 7:30 a.m. Chewable Calcium

10 a.m. Chewable Vitamin and B12 (if needed)

1 p.m. Chewable Calcium
4 p.m. Chewable Vitamin
7 p.m. Chewable Calcium and Biotin

## Changes after Surgery

## Complications

Even though change to the size of the stomach is a useful tool, it can cause serious problems if you don't follow healthy eating habits and meal planning. Complications can happen at any time (days, weeks, months or years) after surgery. Following the diet guidelines for portion size, specific foods and supplements will help prevent complications. Common complications and ways to prevent them are listed below.

| COMPLICATION | POSSIBLE CAUSES | WAYS TO PREVENT COMPLICATION |
| :---: | :---: | :---: |
| Dehydration | Not enough fluid | Drink at least 6-8 cups (48-64 oz.) liquid daily. |
|  | Vomiting | See ways to prevent vomiting below. |
| Nausea and Vomiting, Heartburn | Too much food | Follow guidelines for portion control. Always stop eating when you feel satisfied. |
|  | Eating too fast or not chewing thoroughly | Eat slowly, chew food thoroughly. |
|  | Blockage | Meals should last 20-30 minutes. If having more than $1-2$ vomiting episodes a day or vomiting after every meal, call your doctor immediately. |
| Constipation | Not enough fiber | Try to eat more vegetables, fruits and whole grains. Please note: limit bran, whole grain bread and raw fruits and vegetables immediately |
|  | Dehydration | foods slowly so the pouch can adapt to them. <br> Do not take any fiber pills or laxatives without talking to your doctor. See ways to prevent dehydration above. |

$\left.\begin{array}{|lll}\hline \text { COMPLICATION } & \text { POSSIBLE CAUSES } & \begin{array}{l}\text { WAYS TO PREVENT } \\ \text { COMPLICATION }\end{array} \\ \hline \text { Protein deficiency } & \text { Not enough protein } & \begin{array}{l}\text { Make sure to eat protein first } \\ \text { at all meals. It's important } \\ \text { to get at least 60-80 grams } \\ \text { protein daily. (See Protein } \\ \text { and Supplement Guidelines on } \\ \text { pages 9 and 14.) }\end{array} \\ \hline \text { Vitamin and mineral } & \begin{array}{l}\text { Not enough vitamins } \\ \text { and/or minerals }\end{array} & \begin{array}{l}\text { Always take multi-vitamin } \\ \text { and any other supplements } \\ \text { required from your doctor } \\ \text { or dietitian. (See Supplement }\end{array} \\ \hline \text { Diariency } & \begin{array}{l}\text { Guidelines: Vitamins on Page }\end{array} \\ \hline \text { Lactose intolerance }\end{array} \begin{array}{l}\text { Try lactose-free milk } \\ \text { or soy milk. }\end{array}\right\}$

## Two Weeks Pre-Surgery

## Liquid Diet

## Why is this necessary?

The two-week liquid diet is to decrease the size of the liver before surgery. This makes it easier to do the operation because the liver can block access to the stomach. If the liver is too large, the surgery may be postponed and the full liquid diet attempted again. Your compliance with this diet is important to make your surgery as safe and successful as possible. All meals are liquids only. Calorie intake is approximately 700-800 calories.

## Daily Goals:

- 60-80 grams of protein, or as instructed by your dietitian
- 48-64 ounces (6-8 cups) or more of water


## Examples of liquids

## you may have:

- Protein shakes
- Skim milk
- Sugar-free gelatin
- Sugar-free pudding
- Broth or bouillon
- Sugar-free popsicles
- Low fat, sugar free yogurt (artificially sweetened)
- Reduced fat or fat-free strained cream soups



## Post-Surgery

## Band Fill Instructions

## For LAP band patients only

These instructions are important for when you have band adjustments, or "fills" after surgery. This is when the band is "tightened" by filling your band with solution.

## Before the Fill:

1. Don't eat a large dinner the night before your fill.
2. Eating a small, solid-food meal the morning before is okay.

## After the Fill:

1. For the first 24 hours follow a full liquid diet. Examples of liquids were listed in the pre-surgery diet.
2. The next day you may progress to puree or mechanical soft foods for another 24 hours.
3. Always maintain good hydration. Drink six to eight cups of sugar-free, non-carbonated and decaffeinated beverages between meals.

## Stages

## Post-Surgery Bariatric Diet

After bariatric surgery, the pouch won't be able to hold as much food or liquid. Initially, it can only hold about $1 / 4$ cup of food or 2 ounces at a time. To allow the new pouch to heal completely, introduce liquid and solid foods slowly. This slow introduction is done in different stages. The first stage starts soon after surgery.

The stages of the diet are as follows:

- Stage 1: Full Liquids
- Stage 2: Pureed
- Stage 3: Mechanical Soft
- Stage 4: Solid Foods

There are two things that will change in each stage:

Amount: The portions that are recommended are maximums. Eat less if needed. It is important to eat only to the point of feeling satisfied.

Texture: The stages start off with very liquid-type foods and will progress toward normal solid foods.

The eating rules discussed earlier won't change during any stage of the diet. To review, here are the rules again:

## Rules for Eating

1. Eat three meals a day and one or two snacks if needed.
2. Always stop eating or drinking when starting to feel satisfied.
3. Eat slowly. It should take at least 20-30 minutes to finish each meal.
4. Do not drink with meals.
5. Do not drink liquids that have calories except for lowfat milk or protein liquids.
6. Always eat protein first at meals. Each meal should be balanced by providing protein, vegetables and some carbohydrates (starch or fruit source).
7. Take vitamin/mineral supplements daily.
8. Exercise daily, 30 minutes or as recommended by your doctor or exercise physiologist.
9. Remember to advance your diet slowly per doctor's recommendations.

## Stage 1: Full Liquids

Follow this diet for two weeks before and one to two weeks after surgery; DO NOT advance diet until instructed to do so by your surgeon's office.

Summary: This diet helps with hydration and focuses on eating the recommended amount of protein needed daily: 60-80 grams.

Foods Allowed: Water, sugar-free drinks, sugar-free popsicles, sugar-free gelatin, broth or bouillon, skim or 1\% milk, lactose-free milk, low-fat soy milk, protein drinks, light yogurt, fat-free/sugar-free pudding and low-fat strained creamed soups. Add protein powder as needed, to meet protein needs.

Foods NOT Allowed: Any
drinks with added sugar, caffeine, or carbonation, whole milk, solid foods and orange juice or grapefruit juice (these may cause gastritis/ulcer formation in the pouch).

Amounts: About 1-2 oz. (2-4
Tbsp.) at a time. Take tiny sips during the day.

Reminders: It is important to get at least 6-8 cups of fluid between meals to stay hydrated. Include protein drinks/supplements daily for adequate protein.

Sip liquids slowly; it is not possible to drink the amounts listed on the menu right after surgery. Drink over a period of about 30-60 minutes.

Sample Menu: Full Liquids (Post-Op amounts are listed)

## Breakfast:

7 a.m. - 4 Tbsp. (2 oz.) light vanilla yogurt

8-8:30 a.m. - Protein drink made with 8 oz. skim milk

10 a.m. - 8 oz. water or Crystal Light ${ }^{\circledR}$

Lunch:
Noon - 2-4 Tbsp. (1-2 oz.)
strained fat-free cream soup
2-4 Tbsp. (1-2 oz.) fat-free, sugar-free pudding

1 p.m. - Protein drink made with 8 oz. skim milk

3 p.m. - 4 oz. water
4 p.m. -4 oz. beef broth with unflavored protein powder

## Supper:

5 p.m. - 2-4 Tbsp. (1-2 oz.)
strained fat-free cream soup
2-4 Tbsp. (1-2 oz.) light vanilla yogurt

6 p.m. - Protein drink made with 8 oz. skim milk

8 p.m. -8 oz. Crystal Light ${ }^{\circledR}$

## Stage 2: Pureed

This diet lasts about 2 weeks.
DO NOT advance diet until instructed to do so by the surgeon's office.

Summary: This diet gets the pouch ready for soft foods, along with providing the 60-80 grams of protein needed daily.

Food Allowed: All liquids or foods on the previous stage (refer back to full liquids), also scrambled eggs, scrambled egg whites, scrambled egg substitute, low-fat cottage cheese, thinned cream of wheat made with milk, mashed beans, applesauce, baby food, and any pureed fruits, vegetables, and/or meats (use a blender for this).

Food NOT Allowed: Any liquids or foods not allowed on the previous stage, along with whole milk, any solid foods that aren't pureed, fried foods, and any concentrated sweets. Avoid oranges, grapefruits, and their juices (the acid from these may cause gastritis/ulcer formation in the pouch).

Amounts: About 2-4 oz. (4-8
Tbsp.) or $1 / 4-1 / 2$ cup at one time.
These amounts are maximums; less should be eaten if needed.

Reminders: It is necessary to get at least 6-8 cups of fluid daily to stay hydrated. Stop drinking 15 minutes before meals, and avoid drinking until 30 minutes after meals.

A sample menu of the pureed diet is on the next page.
Remember to sip liquids slowly

- it isn't possible to drink the amount listed on the menu all
at one time; drink over a period of about 30-60 minutes.


## Instructions for pureeing

foods: Consider purchasing or borrowing a blender or food processor for this stage if one isn't already available.

1. Cut food into small pieces about the size of a thumbnail.
2. Place food in the blender or food processor.
3. Add enough liquid (ex: fat free chicken broth, fat free gravy, milk, or yogurt), to cover the blades.
4. Blend until smooth like applesauce.
5. Strain out any lumps, seeds, or whole pieces of food.
6. Use herbs and spices to flavor food (avoid really spicy and high sodium flavorings).
7. Use ice cube trays to freeze pureed foods, and pop out into Ziploc bags to avoid wasting any. This helps with portion control as each cube is about 2 oz . (4 Tbsp.).

Sample Menu: Pureed
Breakfast:
7 a.m. - 1/4 cup scrambled egg or egg substitute

4 Tbsp. (2 oz.) Cream of Wheat made with skim milk - very thin consistency

8 a.m. - Protein drink made with 8 oz. skim milk

10 a.m. - 8 oz. water or Crystal Light ${ }^{\circledR}$

## Lunch:

Noon - 4 Tbsp. (2 oz.) pureed turkey

2 Tbsp. (1 oz.) pureed green beans
2 Tbsp. (1 oz.) mashed potatoes
1 p.m. -4 oz. water
2 p.m. - Protein drink made with 8 oz. skim milk

4 p.m. - 4-8 oz. water

## Supper:

5 p.m. - 4 Tbsp. (2 oz.)
pureed chicken
2 Tbsp. (1 oz.) pureed carrots
2 Tbsp. (1 oz.) mashed potatoes
6 p.m. - Protein drink with
8 oz. skim milk
7 p.m. - 8 oz. Crystal Light ${ }^{\circledR}$

Stage 3: Mechanical Soft
This diet lasts until you're able to tolerate solid food. DO NOT advance diet until instructed to do so by the surgeon's office.

Summary: This diet helps prepare the pouch for the transition to solid foods, along with providing the 60-80 grams of protein needed daily.

Foods Allowed: All liquids or foods on the previous stages (refer back to full liquids and pureed diet), also eggs, egg whites, egg substitute, lowfat cottage cheese, fish, tofu, ground lean meat, low-fat canned chicken and fish, canned fruits (in own juice or water), soft fresh fruits as tolerated, soft cooked vegetables as tolerated, potatoes without skin, cooked cereals made with milk, beans.

## Foods NOT Allowed: Any

 liquids or foods not allowed on the previous stages, along with whole milk, solid/crunchy foods, rice, popcorn, high-fat meats, high-fat starches, fried foods, and any concentrated sweets. Avoid oranges, grapefruits, tomatoes and their juices (the acid from these may cause gastritis/ulcer formation in the pouch).Note: Any food with a husk or shell may get stuck in the pouch opening if not well blended or chewed thoroughly.

## Amounts: About ½-1 cup

of food at each meal. Meals should last about 20-30 minutes. Remember these amounts are maximums; less should be eaten if needed.

## Reminders:

- It may be necessary to continue drinking protein drinks at this point in order to get enough protein daily.
- Always eat your protein first at meals. Get at least 60-80 grams protein daily.
- Always chew food thoroughly to the texture of applesauce.

A sample menu of the mechanical soft diet is on the next page. Remember to sip liquids slowly - it isn't possible to drink the amount listed on the menu all at one time; drink over a period of about 30-60 minutes.

Sample Menu: Mechanical Soft Breakfast:<br>7 a.m. - 1 egg<br>4 Tbsp. (2 oz.) oatmeal made with skim milk and fortified with unflavored protein powder

8 a.m. - Protein drink made with 8 oz. skim milk

10 a.m. - 8 oz. water or Crystal Light ${ }^{\circledR}$

## Lunch:

Noon - 2-3 oz. canned 98\% fat free chicken

2 Tbsp. to $1 / 2$ cup green beans
$1 / 2$ small banana
2 p.m. - 8 oz. water
4 p.m. - 8 oz. water

## Supper:

5 p.m. - 2-3 oz. tuna in water
2 Tbsp. to $1 / 2$ cup cooked carrots

2-4 Tbsp. mashed sweet potato
7 p.m. - 8 oz. Crystal Light ${ }^{\circledR}$
9 p.m. - 8 oz. water

## Stage 4: Solid Foods

Once this stage is reached, this diet is life long.

Summary: It is important to progress the diet slowly, and add new foods in one at a time to assess tolerance. The most important point to remember when starting to eat solid
foods is to eat very slowly and make sure to chew foods very well before swallowing. Each meal needs to be balanced by providing both protein and carbohydrates, along with a small amount of fat.

Foods Allowed: All liquids and foods on the previous stages (refer back to all stages), also whole wheat toast, whole wheat toasted English muffin, whole grain cereals, wheat tortillas, whole wheat pasta.

Foods NOT Allowed: Any liquids or foods not allowed on the previous stages, along with white flour, rice, popcorn. Some vegetables, such as corn and peas may not be well tolerated. Avoid oranges, grapefruits, and their juices (the acid from these may cause gastritis/ulcer formation in the pouch).

Note: Any food with a husk or shell may get stuck in the pouch openings if not well blended or chewed thoroughly.

Amounts: About ½-1 cup of food at each meal. Meals need to last about 20-30 minutes.

## Reminders:

- Learn to listen to the pouch and stop eating or drinking when starting to feel satisfied. Never eat past the point of fullness.
- Drink at least 6-8 cups of liquid daily to stay hydrated. Avoid carbonation, caffeine and alcohol. Include water, sugar-free beverages and protein drinks (as needed).

Please Note: Food intolerance varies with each person and at different times.

What wasn't tolerated three months after surgery may be fine six to nine months after.

## Tips for better food tolerance:

- As a general rule, it's best to try only one new food per day.
- Make a note of the foods that are tolerated well, along with those that aren't
- Avoid foods that aren't tolerated for one to three months before trying them again.


## Sample Menu: Solid Foods

Strive to eat at least two vegetables and one to two fruits daily, along with protein first at meals, and plenty of water between meals. This allows for a balanced diet. See additional sample menus on the following pages.

| TIME | FOOD GROUP | AMOUNT | MENU IDEA |
| :--- | :--- | :--- | :--- |
| $\mathbf{7}$ a.m. | Protein | $2-3$ oz. | Cottage cheese <br> $(1 / 2$ cup $=2$ oz. $)$ |
|  | Fruit | $2-4$ Tbsp. | Diced peaches - no skin |
|  | Starch | $1 / 4-1 / 2$ cup | Oatmeal |
|  | Fat | 1 tsp. | Tub margarine |
| Noon | Protein | $2-3$ oz. | Baked chicken |
|  | Vegetable | 2 Tbsp. | Green beans |
|  |  | $1 / 2$ cup |  |
|  | Starch | $1 / 4-1 / 2$ cup | Baked potato |
|  | Protein | $2-3$ oz. | Baked salmon |
|  | Vegetable | 2 Tbsp. | Cooked carrots |
|  |  | $1 / 2$ cup |  |
|  | Starch | $1 / 4-1 / 2$ cup | Wheat spaghetti noodles |
|  |  |  |  |

Note about liquids: This menu does not include liquids. It is necessary to get at least 6-8 cups of liquids between meals to stay hydrated.

Note about fat: This menu only has one serving of fat. While it is important to limit added fat and high-fat foods, it is permissible to have 3-4 servings of added fat daily. Choose monounsaturated sources instead of saturated sources. See Tips for Limiting Fat on page 8.

Note about protein: It is important to continue to include protein drinks/supplements only until you're able to obtain 60-80 grams protein daily through solid food alone.

## Week One

(Please note: The portions listed may be too much, remember to ONLY EAT to the point of feeling satisfied.)

| MONDAY | WEDNESDAY |
| :---: | :---: |
| Breakfast: | Breakfast: |
| 6 oz. cup light, fat-free yogurt* | 1 scrambled egg |
| $1 / 2$ cup unsweetened applesauce | $1 / 2$ cup pears |
| $1 / 2$ cup oatmeal | 1 slice whole grain toast |
| Lunch: | Lunch: |
| 3 oz. tuna canned in water | 1 cup chili |
| $1 / 2$ cup peaches, canned in juice/ light syrup | 1 small apple, peeled, thinly sliced |
| 6 whole wheat crackers | 6 oz. light, fat-free yogurt* |
| Dinner: | Dinner: |
| 3 oz. baked chicken | 3 oz. lean pork chop |
| $1 / 2$ cup cooked carrots | $1 / 2$ cup cooked carrots |
| $1 / 4-1 / 2$ cup whole wheat spaghetti | 12 cup mashed potatoes* |
| TUESDAY | THURSDAY |
| Breakfast: | Breakfast: |
| $1 / 2$ cup low-fat cottage cheese | High protein bar |
| ½ cup peaches, canned in juice/ | 6 oz. light, fat-free yogurt* |
| light syrup | Lunch: |
| 1 slice whole wheat toast | $1 / 2$ cup low-fat cottage cheese |
| Lunch: | $1 / 2$ cup edamame (soybeans) |
| 3 oz. lean turkey <br> $1 / 2$ cup low-fat cream soup | $1 / 2$ cup peaches, canned in juice/ light syrup |
| $1 / 2$ small banana | Dinner: |
| Dinner: | 3 oz. turkey "meat" loaf |
| 3 oz. baked fish | $1 / 2$ cup spinach |
| $1 / 2$ cup green beans | 1⁄2 cup baked sweet potato |
| 6 oz. light, fat-free yogurt |  |


| FRIDAY |
| :---: |
| Breakfast: |
| 2 oz. lean ham, 1 oz. low-fat cheese |
| 1/2 small banana |
| $1 / 2$ whole wheat English muffin |
| Lunch: |
| $1 / 2$ cup egg salad (low-fat mayo) |
| $1 / 2$ cup spinach |
| 6 whole wheat crackers |
| Snack: |
| ½ cup low-fat cottage cheese |
| Dinner: |
| $1 / 2$ cup low-fat refried beans <br> $1 / 2$ cup low-fat shredded cheese <br> 1-6 in. whole grain tortilla |
| SATURDAY |
| Breakfast: |
| 6 oz. light, fat-free yogurt* $1 / 2$ cup blueberries |
|  |  |
|  |
| Lunch: |
| 3 oz. chicken salad (low-fat mayo) |
| 1 small apple, peeled, thinly sliced |
| 1 slice whole grain toast |
| Dinner: |
| 3 oz . baked salmon |
| $1 / 2$ cup green beans |
| 12 small baked potato, no skin |

## SUNDAY

## Breakfast:

Small 2 egg omelet
$1 / 2$ cup pears, canned in juice/ light syrup

1 slice whole wheat toast

## Lunch:

3 oz. tuna - canned in water
$1 / 2$ cup spinach
6 whole wheat crackers

## Dinner:

3 oz. baked chicken
$1 / 2$ cup cooked carrots
$1 / 2$ cup navy beans

## Week Two

## (Please note: The portions listed may be too much, remember to ONLY EAT to the point of feeling satisfied.)

## MONDAY

## Breakfast:

1 Tbsp. peanut butter
1 slice whole wheat toast
6 oz. light, fat-free yogurt

## Lunch:

1 cup bean soup
6 whole-wheat crackers
$1 / 2$ cup cantaloupe (if tolerated)
1 small plum, peeled

## Snack:

1 protein bar (10-15 grams protein)

## Dinner:

3 oz. turkey meatballs with BBQ sauce
$1 / 2$ cup zucchini, peeled and cooked

1 ounce low-fat string cheese

## TUESDAY

## Breakfast:

1 hard boiled egg
$1 / 2$ mini whole wheat bagel, toasted
$1 / 2$ cup apricots, raw or canned in juice/light syrup

## Lunch:

3 oz. shredded chicken
1-6 inch whole grain tortilla
2 Tbsp. salsa (if tolerated)

## Dinner:

3 oz. baked lean ham
$1 / 2$ cup broccoli and cauliflower floret medley
½ baked sweet potato, no skin

## WEDNESDAY

Breakfast:
$1 / 2$ cup cottage cheese
½ cup strawberries
$1 ⁄ 2$ cup oatmeal*

## Lunch:

2 oz. sliced turkey, 1 ounce low-fat cheese

1 piece whole wheat toast ½ banana

## Dinner:

3 oz. baked tilapia
$1 / 2$ cup spinach
$1 / 2$ cup soft peas, mashed

## THURSDAY

## Breakfast:

1 cup skim milk
1 packet no sugar added Instant Breakfast
$1 / 2$ cup dry Cheerios ${ }^{\circledR}$ (wait 30 minutes)

| Lunch: | SATURDAY |
| :---: | :---: |
| 3 oz. canned salmon | Breakfast: |
| 1 oz . whole grain pita chips | 6 oz. light, fat-free yogurt* |
| $1 / 2$ cup pears, canned in juice/ light syrup | $1 / 2$ cup blueberries <br> ½ cup low-fat granola |
| Dinner: | Lunch: |
| 3 oz. baked chicken <br> $1 / 2$ cup chopped asparagus | 3 oz. chicken salad (low-fat mayo) |
| $1 / 4-1 / 2$ cup whole wheat pasta | 6 whole-grain crackers |
|  | 1 small pear, peeled |
|  | Dinner: |
| FRIDAY | 3 oz. grilled lean pork |
| Breakfast: | ½ cup broccoli florets and |
| 1 scrambled egg | carrots, cooked |
| $1 / 2-4$ inch whole grain waffle | 1/2 cup mashed potatoes |
| 2 tsp. light syrup |  |
| 1 small apple, peeled |  |
| Lunch: | SUNDAY |
| 1 cup garbanzo beans, black | Breakfast: |
| beans, chopped avocado, and chopped tomato, if tolerated | 2 egg omelet <br> $1 / 2$ piece whole grain toast |
| 1 oz . whole grain pita chips | 1/2 banana |
| 6 oz. light, fat-free yogurt | Lunch: |
| Snack: | 1⁄2 cup cottage cheese |
| 1 protein bar <br> (10-15 grams protein) | $1 ⁄ 2$ cup peaches, canned in juice/ light syrup |
| Dinner: | 1⁄2 cup yellow squash, peeled and |
| 2 oz. ham, | cooked |
| 1 ounce mozzarella cheese | Snack: |
| $1 / 2$ whole grain English muffin, toasted | 6 ounces light, fat-free yogurt* |
| $1 / 2$ cup green beans | Dinner: |
| 12 | 3 ounces tuna canned in water (low-fat mayo) |
|  | 4 Melba toast crackers |
| *fortify with protein powder | $1 / 2$ cup steamed cauliflower florets |

## Additional Menu Ideas

Choose one from each category to complete the meal:
Always eat protein source first at every meal.

## PROTEIN

98\% fat free turkey
Boneless, skinless chicken
Pork tenderloin
Sirloin or round beef*
Lean ham
Veal*
Tuna
Orange roughy
Halibut, tilapia, cod, sole
Salmon
Seafood (blend shrimp)
Light low-fat yogurt
Skim milk
1\% milk
Low-fat soy milk
Low-fat lactose-free milk
Evaporated skim milk
Low-fat or 2\% cheese
Low-fat collage cheese
Mozzarella cheese
Egg/egg whites
Tofu and soy protein products
Chili, mild
Natural peanut or almond butter
Protein drink/shake
Unflavored protein powder
Non-fat dry milk

## VEGETABLES

Carrots
Tomatoes*
Spinach salad (if tolerated)
Green beans
Sweet bell pepper
Cucumbers
Cauliflower**
Broccoli**
Zucchini/squash**
Cabbage**
Brussels sprouts**
Beets
Asparagus, chopped**
Eggplant
Artichokes
Mushrooms
Vegetable juice ${ }^{\star \star}$

## STARCH OR FRUIT

## Fruits:

Peaches, peeled or canned in water

Nectarine, peeled, chopped
Pears, peeled or canned in water
Apricots, peeled
Mango, papaya, guava
Blueberries
Strawberries
Banana
Cantaloupe**
Apple, peeled*夫
Honeydew melon**
Watermelon**
Applesauce
Plum, peeled
Kiwi, peeled

## Grain/Starch:

Whole wheat pasta
Whole wheat toast
Whole grain cereal* (not coarse bran)

Whole wheat tortilla
Whole wheat crackers
Whole grain waffle
Whole wheat English muffin, toasted

Whole wheat pita, toasted
Oatmeal
Cream of Wheat
Grits

## Starchy Vegetables:

Mashed potatoes
Potato sweet, white or red (skins*)
Cooked beans (good protein)
Low-fat refried beans (good protein)

Black-eyed peas (good protein)
Soybeans (good protein)
Pumpkin
Peas (skins*)

## Good Fat Sources

Limit to 3-4 servings/day
Avocado
Cooked beans (good protein)
Olives
Low-fat refried beans (good protein)

Olive oil, canola oil, peanut oil
Black-eyed peas (good protein)
Natural peanut butter or almond butter (to supplement)
Soybeans (good protein)
Ground flaxseed
Pumpkin
Spray or tub margarine
Light salad dressing - oily type
*Not in the first 6 months
**May cause gastric discomfort

## Sample Meal Size



Portion sizes not scaled to size.


Drink 48 to 64 ounces (6-8 cups) water daily. Do not drink water with meals.

## Grocery List

Good Protein Sources Include:
Protein first at meals about 2-3 oz.

- Protein shakes and drinks (make with milk to increase the protein by 8 grams or more)
- Unflavored protein powder (to add to food/drinks)
- High-protein bars
- Eggs/egg whites
- Fish/seafood, canned in water, shrimp if chopped
- Chicken, skinless or canned 98\% fat free
- Turkey, skinless or canned; deli or ground; 98\% fat free
- Pork loin or Canadian bacon
- Red meat (only if tolerated), sirloin or round
- Beans, all kinds (if refried, choose low-fat or fat-free)
- Cheese, low fat
- Cottage cheese, fat-free, 1\%, 2\%
- Natural peanut butter, smooth (may need to melt)
- Yogurt, sugar free/fat free
- Skim milk, 1\% milk, lactosefree milk, low-fat soy milk
- Evaporated skim milk to cook with
- Tofu and other soy or vegetarian products


## Vegetables:

1-2 servings a day

- Most cooked vegetables
- Avoid tough skins or seeds in the first six months (i.e. tomato, corn, celery, potato skins).


## Fruits:

1-2 servings a day; can use in place of starch

- Remove peel and choose small, soft pieces, or canned in own juice or water.
- AVOID oranges, grapefruits, and their juices (the acid from these may cause gastritis/ulcer formation in the pouch).

Good Starch Sources Include:
Choose starches third at meals

- Whole wheat pasta
- Oatmeal, Cream of Wheat, grits
- Whole wheat crackers
- Whole wheat/grain tortilla
- Beans, black-eyed peas
- Potatoes, white, red or sweet
- Whole wheat/grain toast


## Tips for Dining Out



Once you can tolerate solid food, feel free to enjoy dining out with friends and family. It's important to be very careful about the quality of food chosen, portion sizes, and the length of time it takes to eat. It's also essential to chew foods well. Review the following tips to help make dining out part of a healthy diet:

- Plan ahead. Decide what to order before going to the restaurant. Once the main course arrives, decide how much to eat and stick to it. Ask for a to-go box right away and fill it with extras.
- Be familiar with menu descriptions. "Breaded, fried, creamed, scalloped, au gratin, and rich" are sources of extra calories and fat. Instead, choose items that are poached, roasted, broiled, steamed or stir-fried, as they are usually lower in fat.
- Ask about ingredients and preparation. Ask that items be prepared without butter, gravy, cream sauce or other fats. Trim all visible fat from meat and remove skin from poultry before eating.


## - Ask about serving sizes.

Restaurants may not be able to meet every request, but most will try to make changes. Request half portions, share a full entree with a dining partner, or order ala carte. Some restaurants permit ordering off the senior's menu and/or child's menu.

## - Ask for items that are not on

 the menu. Non-fat or low-fat milk is usually available upon request. Light, broth-based soups, fresh fruit, yogurt, and steamed vegetables are often available even though they may not be included on the menu.- Beware of the bread basket.

Ask that bread, chips and crackers not be brought to the table before your entree is served. This allows you to save room for foods with more nutritional value.

- Caution at the salad bar. Be careful with salad dressings, toppings and creamy salads (potato, macaroni, cole slaw). These can quickly add up to many calories and loads of fat. Remember to control portion sizes.


## - Avoid desserts.

They can be loaded with unnecessary calories and can cause "dumping" in RNYGB patients. Instead, try fresh fruit sorbet, seasonal fresh fruit or sugar free gelatin.

## - No alcoholic beverages.

They are not only high in calories, but can also irritate the new pouch and cause dehydration. All beverages should be consumed between meals.

- Try new foods at home first. This is to avoid embarrassment at a restaurant, should you develop nausea, vomiting or dumping syndrome.
- When dining out, always remember to follow the same eating principles observed at home. Take your time and chew well.


## Additional Resources

## Helpful Bariatric Websites

ObesityHelp.com
WLSLifestyles.com
asmbs.org
NaturesBest.com
unjury.com
SportNutrition.com
BariatricAdvantage.com

## Helpful Calorie Counter Books and Websites

| The Complete Food Counter | CalorieKing.com |
| :--- | :--- |
| by Natow \& Heslin |  |$\quad$ TheDailyPlate.com

## Readiness Checklist

Remember that bariatric surgery only provides a valuable tool to make lifestyle changes. It is a good idea to practice healthy habits before having bariatric surgery. It is also important to be able to check off everything on this list prior to surgery.

- I eat four times a day, only $1-2$ snacks if needed.
- I eat meals at about the same time each day.
- I have decreased my portion sizes.
- I eat at least three servings of vegetables daily: one serving $=1 / 2$
c. cooked, 1 c. raw, $1 / 2$ c. juice, (these are pre-surgery serving sizes).
- I eat at least two servings of fruit daily: 1 serving= 1 medium piece, 1 cup raw, ½ cup canned, (these are pre-surgery serving sizes).
- I have cut in half the amount of fat that I add to foods.
- I am choosing low-fat products more often than I choose high-fat products.
- I only eat sweets, desserts, and/ or candy one time per week.
- I only eat fried foods one time per month.
- I have increased my activity.
- I have cut in half the number of caffeinated beverages I have daily.
- I have cut in half the number of carbonated beverages I have daily.
- I drink at least 48-64 ounces of water daily.
- I sip all of my drinks slowly.
- I take a multivitamin daily (does not have to be chewable until after surgery).
- I practice chewing my foods 30 times before swallowing.
- I practice not drinking before, during, or 30 minutes after a meal.
- I have practiced eating off a saucer and using a child utensil.
- I have a set of measuring cups to use for measuring foods after surgery.
- I have a set of measuring spoons to use for measuring foods/ liquids after surgery.
- I have a liquid measuring cup to use for measuring liquids after surgery.
- I have tasted and purchased a supply of the protein supplement(s) I will use to help reach my protein needs following surgery.
- I have purchased the necessary vitamins I will need following surgery.

If you have questions about your diet before or after surgery, please contact the Registered Dietitians at the Mercy Bariatric Center in Washington, Missouri.

For more information call 636.861.7895 or visit mercy.net/bariatrics

## Mercy*

