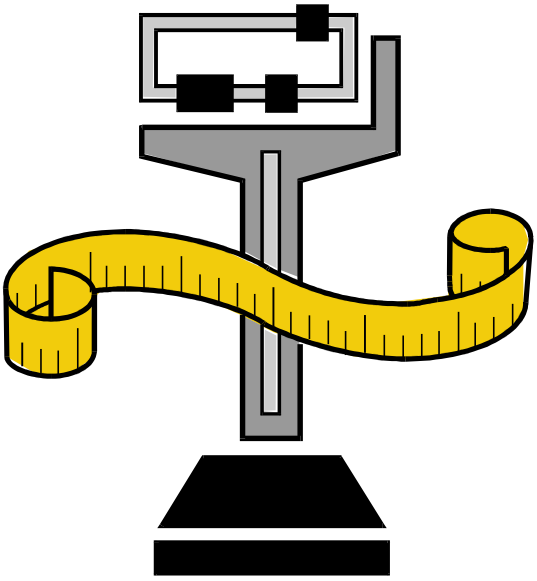
Gastric Bypass
One Bite at a Time



Nutritional Guidelines for Weight Loss after Gastric Bypass Surgery

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Adapted from: Tripler Army Medical Center
Nutrition Intervention & Wellness Clinic and Penrose St. Francis Hospital

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THE GASTRIC BYPASS DIET

Welcome to your new eating lifestyle! Your gastric bypass diet is used in conjunction with the gastric bypass surgery in order to obtain weight loss. Diet modification is very important after surgery in order to

1. Prevent pain and vomiting due to blockage of the opening from the stomach.
2. Achieve and MAINTAIN the desired weight loss.
3. Remain nutritionally healthy.

Surgical intervention is usually performed after less invasive methods of weight loss have failed for patients with clinically severe obesity. The gastric bypass operation is considered an acceptable treatment of choice for carefully selected individuals **but it is not a cure for obesity**; rather, it is the beginning of lifelong eating and exercise behavior changes.

Emotions towards food do not go away after surgery, making it is possible to revert back to old habits and temptations. **You may experience unsuccessful weight loss after surgery or even gain back lost weight by choosing the wrong types of foods or eating more than the body requires**. Therefore, it is important that you establish nutritious eating habits and begin making healthy lifestyle changes in order to reach your goals prior to surgery!

PRE-OPERATIVE CHECKLIST

☐ Do not skip breakfast—eat three meals per day, focusing on meal timing. (Carbohydrate/protein snacks if needed—low fat/low sugar)

☐ Take 20-30 minutes to eat meals.

☐ **Decrease** portion sizes—use the "Plate Method".

☐ **Limit** eating out to once per week; make better choices when eating out. (Low fat/low added sugar)

☐ **Increase** *fruits*, *vegetables*, and *whole grains* in eating patterns.

☐ **Decrease** desserts/candy to no more than one time per week.

☐ **Decrease** fat in diet. (Choose low-fat products more often)

☐ **Increase** activity (walking, swimming, etc) to at least 5 days per week for 30-60 minutes.

☐ **Decrease** *caffeinated* and/or *carbonated* beverages.

☐ Drink at least 64 oz. water per day.

☐ No alcohol beverages.

☐ Begin taking a *multivitamin* once per day.
(**Centrum, One-a-day, Prenatal, etc.**)

☐ Begin taking c*alcium citrate with Vitamin D* 500 mg *2 or 3* times per day.
(**Citrical +D, Caltrate +D, etc.**)

☐ Practice *CHEWING* foods thoroughly—to liquid or paste consistency—before swallowing.

☐ Practice *SIPPING* beverages—no "chugging" or gulping.

☐ Practice limiting *LIQUIDS 30 minutes BEFORE, DURING, AND 30 minutes AFTER MEALS*.

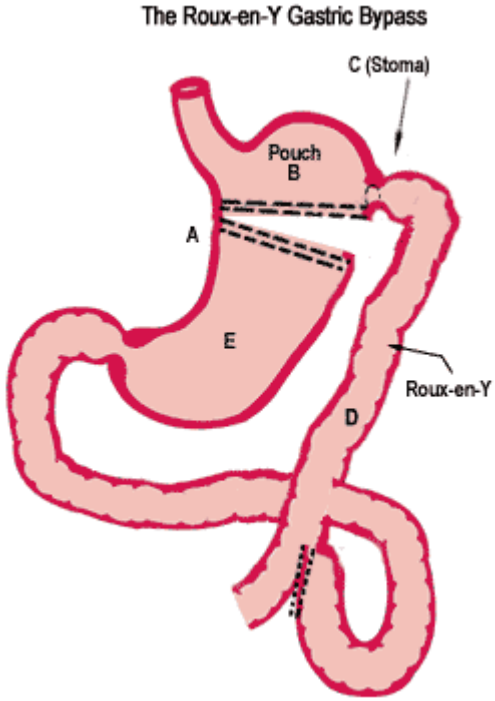
☐ Keep food/activity record.

☐ Other

_____

_____

THE ROUX-EN-Y GASTRIC BYPASS SURGERY



The Roux-en-Y Gastric Bypass helps you lose weight through these 3 methods:

1. **Restriction**. Stomach capacity is reduced from 1 quart (size of a football) to 30 ml, or 1 ounce (size of an egg). Over time, the pouch stretches, eventually holding 3 to 4 ounces of food (B).

2. **Malabsorption**. A Y-shaped limb is created by re-routing the small intestine (D). Food no longer passes through the rest of the stomach (E) and a portion of the small intestine, where absorption of some important nutrients, vitamins and minerals take place.

3. **Satiety**. Where the Roux-en-Y limb is attached at the distal stomach pouch (C), a very small opening is created no larger than two fingers. Food empties from the stomach more slowly, allowing you to feel fuller for a longer period of time. This opening is reinforced to prevent stretching over time.

NUTRITION COMPLICATIONS

1. Protein Malnutrition

During the first 3 months after surgery, **25% of your weight loss comes from lean body mass**. Adequate dietary protein is essential during this time to build tissue and aid in wound healing. You may experience thinning hair and some temporary hair loss around 3-4 months post-op if protein needs are not met. Taking excess amount of vitamin A, biotin or zinc does not stop this process. Over time, the body will begin to preserve its muscle stores so fat is lost instead.

2. Vitamin/Mineral Deficiencies

Deficiencies occur due to: 1.) A lack of gastric juices in the small stomach pouch to aid in digestion and 2.) Decreased contact of food with tissues and enzymes in the upper GI tract used for absorption.

The following are the most common deficiencies that can occur:

Calcium: deficiency often results from a lack of milk and dairy consumption due to lactose intolerance and a disruption of normal calcium absorption. Because the body must now rely on alternate mechanisms for good bone health, Calcium Citrate is better absorbed than Calcium Carbonate. Recommendation is 1200-1500 milligrams (mg) per day in divided doses.

Iron: deficiency occurs in 33-50% patients and is higher in menstruating women. A prenatal vitamin providing 40-65 mg of elemental iron is sufficient. If needed, supplemental iron in the form of ferrous sulfate, gluconate or fumarate may be prescribed by your physician. Do not take your iron with calcium or dairy products.

Vitamin B_{12} (Cobalamin): deficiency occurs in greater than 30% patients. Normal plasma levels can be maintained with 350 micrograms (mcg) daily crystalline B_{12}, or monthly intramuscular injections of 1000 mcg. A nasal spray form of B_{12} is also available.

Folate: deficiency occurs less often than Vitamin B_{12} and Iron deficiency. A daily prenatal vitamin with 1 mg folate should be sufficient.

3. Dumping Syndrome

A complex physiological response to the rapid emptying of the gastric contents into the jejunum is called dumping syndrome. Symptoms include: abdominal distention, cramping and diarrhea 15 minutes after eating. You may also feel warm, dizzy, weak and faint along with a rapid pulse. Most patients will experience dumping syndrome after consuming simple carbohydrates/sugars or eating too quickly. This serves as a negative reinforcer to eating sweetened foods and beverages. Consequently, patients who are "sweet eaters" lose more weight with this operation.

HIDDEN SUGARS: Sugar goes by many other names. Read food labels and lists of ingredients carefully when you select food products. Beware of other words for SUGAR (especially in the first three ingredients): brown sugar, sucrose, corn syrup, corn syrup solids, dextrose, honey, maple syrup, molasses, high fructose corn syrup, sorghum, and turbinado sugar. (Remember, fructose is a natural sugar found in fruit)

4. Hypoglycemia

Related to hidden sugar intake is the possibility of experiencing hypoglycemia (low blood sugar). It is important to limit concentrated sweets in the diet simply for the reason that they initiate rapid blood glucose rise (due to the release of insulin) and rapid fall, leading to low blood glucose or hypoglycemia. Symptoms include weakness, drowsiness, headache, irritability, trembling, rapid heart rate and cold, clammy feeling.

Approximately 10% of patients experience Late Dumping Syndrome of Hypoglycemia. Common manifestations include the same as early dumping, but without GI symptoms of nausea, diarrhea, etc. This may occur 2-4 hours after eating and is related to a delayed, but significant drop in blood sugar level due to over-production of insulin.

WEIGHT LOSS EXPECTATIONS

Patient Information

Height: _____ Weight: _____

Desirable Body Weight: _____

Excess Weight: _____

Body Mass Index: _____

How Much Will I Lose?

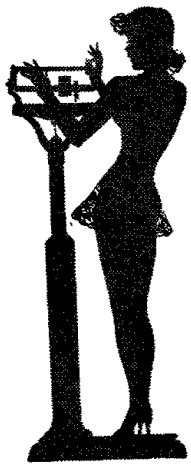
Because every person is different it is hard to predict how much weight you will lose. But on average, most patients after 3-5 years are able to maintain successful weight loss of 50-70% of their excess weight.

70% Weight Loss = _____ lbs.

How Quickly Will My Weight Come Off?

The rate of weight loss depends on how much you have to lose. Although we cannot predict how long it will take you to reach your goal weight, we do know the following:

- Heavier individuals tend to lose weight more rapidly.
- Many patients lose anywhere from 20-30 lbs in the first 4 weeks after surgery and around 10 lbs. per month thereafter.
- Weight loss may slow down or plateau as soon as 9 months but usually takes up to 18-24 months to completely stabilize. Although this may be above your ideal weight, you can lose additional weight by choosing healthy foods and increasing your exercise.



- If you are not losing weight, keep a detailed food record of everything you eat and drink for review by the dietitian.

DIET PROGRESSION AFTER SURGERY

During the first few months after surgery your body needs time to adjust to a new way of eating so it is important that you **allow <u>at least two months</u> to transition from liquids to high-protein, soft foods and eventually back to "regular" foods**. If you try to eat solid foods before you are ready, the stomach pouch will reject it, forcing it to stretch. This may result in unwanted nausea, vomiting and pain. Blended or soft foods decrease the likelihood of developing an obstruction and do not cause as much distention of the small stomach pouch.

Once your doctor determines there are no leaks in your pouch, you will be allowed small sips of water and progress your diet in stages as follows:

<u>Clear Liquids -**Post-op day 2**</u>

Water
Diet gelatin
Diet fruit drinks such as:
- Crystal Light
- Sugar-free Kool-Aid
- Diet Snapple
- Or beverages 5-10 calories per serving

Tea or coffee
- Unsweetened, decaffeinated

Bouillon or broth
Sugar-free Popsicles (bring own)

- Sip 1-2 ounces every 15 minutes as tolerated for a goal of 48-64 ounces per day (six to eight, 8-ounce cups)
- AVOID all high sugar, high calorie, beverages.
- AVOID carbonation and caffeine.

<u>Length</u>: 1-2 days, or as tolerated




Full Liquid Diet

Post-op day 2-3; follow for 3 weeks

What: food should be the consistency of milk, such as soups, thinned cereals and other starches, thinned baby food, milk, Health shakes or Carnation Instant Breakfast mixed with milk*, plus previous clear liquid items. Foods should be thin enough to pass through a straw but **do not drink from a straw!**

***If you cannot tolerate milk, you may substitute soymilk or Lactaid milk.**

How much: Initially, 30-60 ml per hour.

How long: usually 3 weeks.

1 Meal = 1 ounce (4 Tbsp.) of protein, eaten 1st, plus 1 ounce (2 Tbsp.) of food from the list below, if tolerated.

1 Snack = 4-8 ounces of skim milk or soymilk (count as fluid intake), sip slowly over an hour's time.

Choose from these foods:

Meats:	baby food meats thinned with broth, canned or cooked skinless chicken, turkey or fish (if blended and thinned). Meats may be very difficult to digest immediately after surgery.
Starches:	blended potatoes (no skins) thinned with broth, thinned hot cereals.
Vegetables:	baby food vegetables thinned with hot water or broth or vegetable juice (V-8), blended and thinned well-cooked vegetables.
Fruits:	baby food fruit or canned fruit (blended) thinned with juice
Soups:	blended and thinned creamed soups made with skim milk (no chunks).

Beverages: 60 ml every hour in between meals for a total of 48-64 ounces per day.

DO NOT drink beverages 30-45 minutes before or after meals.

* If you have not begun taking your daily multivitamin do so now. Your doctor can prescribe a liquid multivitamin with iron or you can purchase a chewable children's multivitamin with minerals (like Flintstones) that supplies 100% of the RDA (Recommended Dietary Allowances). Do not take this with food (unless it upsets your stomach) or with fiber supplements, tea, dairy products, eggs or bran for optimal iron absorption. You can also begin taking a calcium supplement (preferably calcium citrate such as Caltrate®).

Soft Foods

Start: 3 weeks after you leave the hospital
Duration: 4-6 weeks

Foods should be a soft consistency. If you have difficulty tolerating regular foods, try blended foods the consistency of applesauce or pudding. **Eat 3 regularly scheduled meals and 1-2 snacks each day**. No snack foods or "treats" even if it is sugar-free, fat-free ice cream. Anything more than this is considered "grazing", which may lead to frequent snacking later on when your pouch can hold more food. Furthermore, if you eat more frequently, you will have a hard time staying hydrated. From now on, **all liquids should be consumed 30 minutes before or after meals, not with them**. The stomach pouch is too small to handle both liquids and solids at the same time. Drinking fluids with meals can flush food out of the pouch, causing you to feel hungry faster.

Note: The most important part of the meal is protein. Always eat the protein portion of your meal first. At first, this should be the majority of your meal to meet you needs. Remember, you protein needs do not change after surgery. For more information on protein, refer to the "protein" section of this booklet.

1 meal consists of 2 ounces of food, consumed over 20-30 minutes:

1 ounce (2 Tbsp.) of a low-fat, protein-rich food and
1 ounce (2 Tbsp.) of fruit or vegetable (no starches)

Between-meal beverages: any sugar-free, calorie-free, non-carbonated beverage, water, decaffeinated tea or coffee, milk. No fruit juices, even 100% fruit juice.

When choosing your foods, select from the list below for best tolerance:

Low-fat animal proteins:

- Low-fat cottage cheese or fat-free yogurt sweetened w/aspartame (watch for diarrhea with the yogurt; if it is too sweet, try plain yogurt and flavor with your own fruit or sweet flavorings such as vanilla and cinnamon)
- White fish such as canned tuna in water, cod, snapper, flounder, sole, ono, opakapaka, imitation crab meat. No fried fish sticks.
- Shrimp if not too chewy.
- Wet/soft chicken or turkey (breast or thigh, no skin)
- Scrambled eggs or egg substitute
- Nonfat and low-fat cheeses
- Sugar-free puddings blended with tofu or skim milk with several tablespoons of non-fat dry milk powder added to the milk.

Low-fat plant foods high in protein:
- Beans, lentils; 20-30% protein (fiber may cause some distention)
- Tofu, green soybeans (also called edamame)
- Veggie meat replacements such as veggie patties, soy ground beef (moisten with chicken broth if too dry or a little bit of tomato sauce)

Other foods:
- Canned fruit, no sugar added
- Banana, peel well-no stringy sections
- Melon, no seeds
- Applesauce or apples, no skin, chew well
- Pears, no skin
- Peaches or nectarines, no skin
- Soft cooked vegetables such as carrots, eggplant, beets, green beans, squash, asparagus, spinach

Calorie Goal for the first few months ~ 500-600 calories/day.

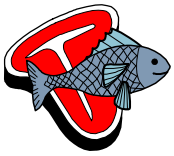
Sample Menu
(Soft Foods)

			Kcals	Prot (g)
Breakfast	1 ¼ 4 oz	Scrambled egg Soft banana Skim milk + ½ scoop protein powder *(1/2 hr later)*	75 25 90	3.5 - 15
Lunch	2 Tbsp. 2 Tbsp. 4 oz	Moist turkey breast cut small Cooked carrot coins Skim milk + ½ scoop protein powder *(1/2 hr later)*	35 20 90	7 - 15
Dinner	2 Tbsp. 2 Tbsp.	Baked snapper with lemon Cooked broccoli florets 1 tsp soft margarine	35 20 45	7 --
Fluids Between Meals	8 oz 48 oz	Skim milk blended with 1 scoop whey protein powder Water, Crystal Light, Decaf Tea w/Equal, etc	180 -	30 -
Totals			615	78

Regular Foods

Advance as tolerated from soft foods starting at 2 months

After the sixth to eighth week after surgery, you will eat a more regular type of diet. You may begin adding red meats, bread and raw vegetables with caution. You will continue to use this trial and error method according to how well you may tolerate different foods. Be sure to eat three well-balanced meals a day.

Protein Foods – at least 3 ounces per day (1-2 oz/meal)
You may begin introducing red meats such as lean ham and pork loin after 2 months. Choose lean protein products such as chicken without skin, ground turkey, turkey bacon, fish, low-fat cottage cheese, etc. Low-fat deli meats, canned meats and tender beef jerky are a convenient way to get protein. Low-fat cheeses (3 g fat per ounce) are preferred over regular cheese, which is about 70% fat.

Fruits and Vegetables (brightly colored) – ¼-1/2 cup per day
Choose mostly canned fruits in natural juice/light syrup or really soft fruits and soft-cooked vegetables for the first 2-3 months. Raw and crunchy fruits and vegetables should be the very last foods you introduced into your diet (salads, apples, raw carrots). Remember to chew all fruits and vegetables thoroughly.

Milk – at least 2 servings per day (8 oz skim milk or nonfat yogurt with non-nutritive sweetener)
Continue to add these high protein and calcium foods to your diet. Calcium is important for strong bones. After usually 6 months, you maybe able to decrease the number of protein shakes with milk due to adequate protein intake from food sources.

Starches – include at only one meal per day (1 ounce/meal)
Overcooked pasta, round cheese ravioli, rice, mashed or soft baked potatoes or sweet potatoes, acorn squash, beans, peas and lentils, crackers or Melba toast, pretzels, cooked cereals, plain/dry unsweetened cereals.

Fats – limit to 3-5 servings per day
(1 tsp oil/margarine/mayo, 1 Tbsp dressing, 2 Tbsp nuts = 1 serving)
Fat-free or light salad dressings, mayonnaise, cream cheese, soft tub margarine spread or liquid margarine, olive oil, canola oil and nuts or seeds such as cashews, almonds, pecans and sunflower seeds (if tolerated). Bake, broil, grill or lightly pan-fry all foods.

Sweets – use in moderation
- Sugar-free gelatin, popsicles, fudgesicles, frozen yogurt & pudding
- Remember, sugar-free does not always mean calorie-free!

Sample Meal Plan after One Year

Food	Carb (grams)	Pro (grams)	Fat (grams)	Break	Lunch	Dinner	Snack
5 Meat		35	25	1	2	2	
3 Vegetable	15	6			1	1	1
4 Starch/Bread	60	12		1	1	1	1
3 Fruit	45			1	1	1	
3 Fat			15		1	1	1
2 Skim Milk	24	16		½		½	1
Total: 1200 kcals	144	69	40				

Example:

Breakfast
1 oz scrambled egg white
1 oz dry Cheerios (by weight)
½ cup canned peaches in natural juice or water
4 oz skim milk (30 minutes later)

Lunch:
2 oz canned tuna packed in water
6 saltine crackers
½ cup cooked green beans
1 cup cubed watermelon
1 Tbsp. light mayonnaise
4 oz skim milk (30 minutes later)

Dinner:
2 oz broiled lean pork chop
½ cup mashed potatoes
½ cup cooked mixed vegetables
½ cup applesauce
2 oz gravy

*Snack(s):
5 Ritz crackers
2 tsp. Peanut butter
Small salad
6 ounces Yoplait Light, Fat-Free yogurt

*Permitted if you can eat more food. Eat snacks only at scheduled times.

TIPS FOR YOUR NEW EATING LIFESTYLE

1. **<u>Eat 3 small meals (and 2-3 high-protein snacks if needed) daily.</u>**
   A meal could be 1-3 ounces of protein and ¼ cup or less of another food. As your stomach pouch capacity increases, larger portions may be eaten and between-meal snacks stopped.

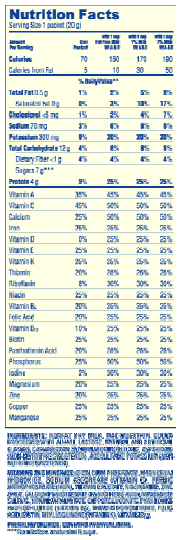
2. **<u>Good, well-balanced nutrition is important.</u>**
   Lean protein first! However, for your body to use protein properly, you need to eat adequate complex carbohydrates as well. Eventually your diet will include more fruits, vegetables, and whole grains.

3. **<u>Your body needs approximately 60 g lean protein per day.</u>**
   Protein is needed for post-op healing, maintenance of body structures, and preservation of muscle tissue. In the beginning, you may need to eat mostly protein to achieve an appropriate daily intake. Men with more muscle mass may need 70-75 g protein.

4. **<u>Fluids must be continually sipped all day long to prevent dehydration.</u>**
   You should not drink 30 minutes before and 30 minutes after meals. Aim for 64 ounce of sugar-free, non-carbonated fluids per day.

5. **<u>Eat slowly.</u>**
   Chew slowly and to mushy consistency—at least 20 times! Remember that the stomach can only hold 1-2 oz. after surgery. Overeating or eating too rapidly may cause nausea/abdominal pain.

6. **<u>Avoid lactose if you are lactose-intolerant.</u>**
   You may use products like Lactaid milk or tablets.


Nutrition Facts
Serving Size 1 packet (20 g)

Amount Per Serving	Mix Powder	with 1 tbsp Fat Free Milk	with 1 tbsp 1% Milk	with 1 tbsp Whole Milk
Calories	70	150	170	190
Calories from Fat	5	10	30	50
	% Daily Value**			
Total Fat 0.5 g	1%	2%	5%	8%
Saturated Fat 0 g	0%	2%	10%	12%
Cholesterol <5 mg	1%	2%	4%	7%
Sodium 70 mg	3%	6%	6%	8%
Potassium 300 mg	9%	20%	20%	20%
Total Carbohydrate 12 g	4%	8%	8%	8%
Dietary Fiber <1 g	4%	4%	4%	4%
Sugars 7 g***				
Protein 4 g	8%	25%	25%	25%
Vitamin A	35%	45%	45%	45%
Vitamin C	45%	50%	50%	50%
Calcium	25%	50%	50%	50%
Iron	25%	25%	25%	25%
Vitamin D	0%	25%	25%	25%
Vitamin E	25%	25%	25%	25%
Vitamin K	25%	25%	25%	25%
Thiamin	25%	25%	25%	25%
Riboflavin	0%	30%	30%	30%
Niacin	25%	25%	25%	25%
Vitamin B_6	20%	25%	25%	25%
Folic Acid	20%	25%	25%	25%
Vitamin B_{12}	10%	25%	25%	25%
Biotin	25%	25%	25%	25%
Pantothenic Acid	20%	25%	25%	25%
Phosphorus	25%	50%	50%	50%
Iodine	2%	30%	30%	30%
Magnesium	20%	25%	25%	25%
Zinc	20%	25%	25%	25%
Copper	25%	25%	25%	25%
Manganese	25%	25%	25%	25%

INGREDIENTS: NONFAT MILK, DEXTRIN, SUGAR, MALTODEXTRIN, ARTIFICIAL FLAVOR, LACTOSE, ENZYMES AND SUCRALOSE. CONTAINS 2% OR LESS OF MONO AND DIGLYCERIDES, CARRAGEENAN, SOY LECITHIN, CONCENTRATED ANNATTO (COLOR), ACESULFAME POTASSIUM (ADDED TO PREVENT FOAMING).

ALLERGENS: MILK INGREDIENTS. MAY CONTAIN PEANUTS, TREE NUTS, WHEAT, SOY, EGG. MANUFACTURED IN A FACILITY THAT PROCESSES PEANUTS, TREE NUTS, WHEAT, SOY, EGG, MILK AND OTHER ALLERGENS. THIS PRODUCT CONTAINS ARTIFICIAL FLAVOR, ARTIFICIAL COLOR, SUCRALOSE, ACESULFAME POTASSIUM, CARRAGEENAN, SOY LECITHIN, MONO AND DIGLYCERIDES, FOOD STARCH-MODIFIED, DEXTRIN, MALTODEXTRIN, SUGAR, SODIUM CITRATE, SALT, MAGNESIUM OXIDE, NIACINAMIDE, FERRIC ORTHOPHOSPHATE, ZINC OXIDE, VITAMIN A PALMITATE, PYRIDOXINE HYDROCHLORIDE, RIBOFLAVIN, THIAMIN HYDROCHLORIDE, FOLIC ACID, CYANOCOBALAMIN (VITAMIN B12), BIOTIN, VITAMIN D3, VITAMIN K1.

PHENYLKETONURICS: CONTAINS PHENYLALANINE.

** Percentage of Daily Value.

7. **<u>Become familiar with reading labels.</u>**
   Labels are a great source of information and give you in-depth information about the product you are purchasing (such as the amount of fat, protein, carbohydrate, sugar, and fiber it contains). Guidelines are as follows:

<u>Fat:</u>	less than 4-5 g per serving
<u>Total Carbohydrate:</u>	less than 10-15 g per serving
<u>Fiber:</u>	aim for 3- 5 g per serving

8. **<u>Choose low-fat or fat-free products when available.</u>**
   Fatty foods are high in calories and will hinder your weight loss if consumed in high amounts. However, use caution with products labeled "fat-free" and "reduced fat"—they may contain more sugar and/or calories than regular versions of these products.

9. **Choose sugar-free products when available.**
   Consuming high-sugar foods/beverages can cause a condition known as DUMPING SYNDROME. Use caution when a product claims "no *added* sugar" or when fruit products claim "unsweetened"—these products still may contain a substantial amount of sugar.

10. **When cooking meats, use moist-heat methods and do not overcook as this makes them difficult to digest.**
    Moist-heat methods include stewing, boiling, braising, and steaming. You may also add small amounts of fat-free sauces to meats to make them easier to chew/swallow.

11. **To rule out intolerance, introduce one food at a time.**
    Keep in mind that what you cannot tolerate at first may be more acceptable in a few weeks.

12. **Take a Multivitamin daily.**
    
    For the first month after surgery, take a chewable multivitamin twice per day. After one month, you may change to an adult multivitamin such as Women's One-A-Day or a Prenatal Multivitamin. You only need to take this once a day since you can tolerate more food at this time.

13. **500mg *Calcium citrate* + *Vitamin D* 2-3/day.**
    Take in 2-3 separate doses of 500 mg to maximize absorption by the body. Recommend Citrical plus Vitamin D or Caltrate plus Vitamin D. Remember to not take calcium at the same time as iron.

14. **Remember that it is ok to get pleasure out of food.**
    Since you are restricted to small portions we encourage you to become a gourmet and only have the best! Make your dish look appealing with beautiful tableware and enjoy the meal.

THE IMPORTANCE OF PROTEIN

Protein is very important to help you heal from your surgery and preserve lean body mass while you are losing the fat. The best sources of protein are milk, cheese, cottage cheese, yogurt, eggs, fish, and lean meat, as you are able to tolerate. If you feel that you are not able to get in enough protein foods, you may need to supplement your diet with extra protein. You need a MINUMUM of 60 grams of protein daily. Goal is 60-80 grams protein per day for the rest of your life.

WAYS TO ADD EXTRA PROTEIN:

- Add Carnation Instant Breakfast (diet, sugar-free, no sugar added) to skim milk
- Add Carnation (or store brand) nonfat dry milk to:
  - Soups, hot cereals, skim milk, mashed potatoes, egg substitutes
- Add pureed baby food meats to soups or pasta dishes
- Soy-based sausage links or patties (MorningStar Farms brand)
- Use skim milk whenever possible in recipes instead of water (soups/hot cereals)
- Add low-fat cheese to foods
- Add eggs or egg substitutes to foods
- Herbalife Thermojetics Performance Protein (1 Tbsp = 5 grams protein)

GOOD PROTEIN SUPPLEMENTS:

(This is just a small list, there are many available)

Recommendations for choosing protein supplements: Select a whey protein or soy protein (100% protein) that is sugar-free or less than 6 grams carbohydrate and 20-25 grams protein per serving. The protein supplement should be around 100 calories.

All information based on the serving size from the manufacture (usually 1-2 scoops)

Manufacturer	Product Name	Calories Per serving	Protein Per serving	Website
GNC	Pro Performance 100%Whey Protein	130	20	www.gnc.com
Vitamin World	Precision Engineered Whey Protein	80	17	www.vitaminworld.com
Prosynthesis Laboratories	Unjury Whey Protein	90	20	www.unjury.com
Optimum Nutrition	100% Any Whey Protein 100% Natural Whey Protein	70 110	17 22	www.optimumnutrition.com
Syntrax Innovations	Syntrax Nectar	90	23	www.syntrax.com

Manufacturer	Product Name	Calories Per serving	Protein Per serving	Website
All the Whey Inc	All the Whey Isolate	105	25	www.allthewhey.com
AST Sports Science	100% Whey Protein Isolate (hydrolyzed)	105	24	www.ust.ss.com
BIO Nutritional Research	ProtoWhey (hydrolyzed) many flavors	115	20	www.bnrg.com
Champion Nutrition	Pro-Score 100	90	16	www.championnutrition.com
Diamond Nutrition	100% Whey Protein	105	22	www.diamondnutrition.net
EAS	Precision Protein	100	20	www.eas.com
Energy First	100% Whey Protein Isolate	100	17	www.energyfirst.com
ProLab Nutrition	Whey Protein Isolate	100	23	www.prolab.com
Bariatrix International	Protein shake Protein drink mix	100 70	15 15	www.bariatrix.com
Vitamin Shoppe	Whey protein	80	17	www.vitaminshoppe.com
Next Nutrition	Designer Whey Protein	90	17.5	www.designerwhey.com
Resource	Resource Beneprotein	25	6	www.resource.walgreens.com
Global Health Products Inc.	ProCel Protein Powder	30	5	www.globalhp.com
Protein Drinks				
Carb Solutions Inc.	CarbSolutions Ready to Drink	110	21	www.carbsolutions.com
EAS	EAS AdvantEDGE Carb control	110	15	www.eas.com
Atkins Inc.	Atkins Ready to Drink Shakes	170 (9gm fat)	20	www.atkins.com
MET-Rx	Ultra Pure Protein	170	35	www.metrx.com
Natures Best	Isopure Zero Carb Sport Isopure Zero Carb	160 60	40 15	www.naturesbest.com
Optimum Nutrition	Pro Complex	150	37	www.optimumnutrition.com
Resource	Optisource High Protein Drink	100	12	www.resource.walgreens.com

* The above products contain 5 grams of carbohydrate or less.

PROTEIN CONTENT OF VARIOUS FOODS

Animal Foods	Serving Size	Calories	Protein (grams)
Milk	8 oz	100-150	8.0
Non-fat Dry Milk Powder	1/3 cup	80	8.0
Cottage Cheese, 1% low fat	¼ cup	41	7.0
Cheese	1 oz	35-100	7.0
Poultry, light meat, roasted	1 oz	55	7.0
Fish, Canned tuna (in water)	1 oz, ¼ cup	35	7.0
Lean Hamburger, broiled	1 oz	75	7.0
Pork Chop, broiled	1 oz	55-75	7.0-9.0
Whole Egg	1	77	6.3
Pasteurized Egg Beaters	¼ cup	30	6.0
Egg White	1 egg white	20	3.0
Light, fat-free yogurt	6 oz	100	5.0
Baby Food Meat	1 jar		8.0

Vegetarian Foods	Serving Size	Calories	Protein (grams)
Better N' Beef Burger	1 patty (2.6 oz)	80	13.0
Morning Star Veggie Dogs	1 link (2 oz)	80	11.0
Morning Star Breakfast Patty	1 patty (1oz)	80	10.0
The Original Garden burger	1 patty (2.5 oz)	130	7.0
Soymilk	8 oz	79	6.6
Tofu, raw firm	1 oz	46	4.9
Peanut Butter	1 Tbsp.	94	4.0
Black Beans	¼ cup	55	3.6
Baked Beans	¼ cup	80	4.0
Soybeans, boiled	1 oz	37	3.5
Toast, Rice, Pasta, Oatmeal	½ slice (¼ cup)	40	3.0
Barley	1 oz	88	2.5
Lentils	1 oz	29	2.2
Vegetarian Refried Beans	1 oz	30	1.8
Bean, Pea or Lentil soup	½ cup	30	3.7
Broth	½ cup	25	1.5
Low-fat Creamed Soup	1 cup	90	6.0-9.0
Chicken Noodle Soup	1 cup	35	4.0
Minestrone Soup	1 cup	60	5.0

1 oz = 2 tablespoons 2 oz = ¼ cup 3 oz = 1/3 cup 4 oz = ½ cup 8 oz = 1 cup

PROTEIN SHAKE RECIPES

Cinnamon Mocha Shake
- 1-2 servings chocolate protein powder
- 1 ½ cups cold water
- ½ tsp. Cinnamon
- ½ cup low-fat milk
- 1 tsp. Decaffeinated instant coffee

Banana Split Shake
- 1 serving vanilla or chocolate protein powder
- 1 ripe banana
- ¼ cup pineapple
- 4 frozen strawberries
- 3 ice cubes

Chocolate Mocha Mint Shake
- 1 serving chocolate protein powder
- 1 ½ Tbsp. International decaffeinated coffee
- 4 drops peppermint extract
- 3 ice cubes

Strawberry Banana Frost Shake
- 1 serving strawberry protein powder
- 1 ripe banana
- 3 ice cubes

Tropical Fruit Breeze Shake
- 1 serving strawberry protein powder
- ¼ cup frozen unsweetened peaches
- ¼ cup pineapple
- 3 ice cubes

Protein Fruit Smoothie
- 1 serving protein powder
- ½ cup fat-free plain or vanilla yogurt
- ½ cup strawberries or ¼ banana
- 2 ice cubes

Tofu Shake
- ½ tub of soft tofu
- 2 tsp. cocoa powder
- 1 tsp vanilla
- ½ cup water
- 2-4 packets of non-nutritive sweetener to taste
- 4 ice cubes

IMPORTANCE OF CARBOHYDRATE AND FAT

CARBOHYDRATE

Carbohydrates are the body's primary "quick-start" fuel and are quickly converted into glucose. Based on how quickly they are converted to glucose, carbohydrates are classified as simple (very rapid conversion to glucose, with a corresponding rapid rise in insulin production) or complex (slower rate of conversion to glucose, less stimulation of insulin release). Complex carbohydrates include whole grains, vegetables, and fruits; they are also a good source of dietary fiber: soluble fiber (such as pectin) and insoluble fiber (cellulose, like the "strings" in celery). Simple carbohydrates include "starches" like breads, potatoes, pasta, simple cereals; fruit juices, sweets, alcohol, soft drinks; and some high-sugar fruits like bananas.

The brain needs steady glucose, so our food intake needs to be balanced and timed in such a way that the brain receives a steady supply of this important nutrient. The RDA for carbohydrate is a minimum of 100-130 grams carbohydrate per day. If you are getting too little food, or go too long between meals, it leaves you feeling "foggy" because your brain isn't getting a steady supply of the most efficient fuel it needs to function optimally.

Simple carbohydrates, also called simple sugars, are found in sugar, honey, corn syrup, desserts and fruit. They are digested quickly and provide a surge of quick energy. Complex carbohydrates, found in breads, cereals, pasta, rice and potatoes, take longer for your body to digest and therefore leave you feeling full longer. The energy from complex carbohydrates stays with you longer, too.

Complex carbohydrates, particularly less-processed varieties such as whole-grain bread, whole wheat pasta, brown rice, and even vegetables, are also an excellent source of fiber and the preferred type of carbohydrate.

DIETARY FAT

Fats are classified into saturated (animal fat), monounsaturated, and polyunsaturated (derived from vegetable sources). The right balance of fat is crucial to help absorb fat-soluble vitamins and to provide the essential a fatty acids that are used to make a variety of hormones.

A primary source of unwanted dietary fat for most Americans is the hidden fats, especially the "trans" fats, such as partially hydrogenated fats in stick margarine and in processed foods. These hidden calories often sabotage our best weight-loss efforts. Watch the food labels to help you detect these hidden fats.

One gimmick to watch for is the low-fat/fat-free food items now filling the shelves. The fat has been removed but it has been replaced by simple sugars that give excess calories with little nutritional value. While it may be fat free, it certainly is not calorie free.

IMPORTANCE OF VITAMINS AND MINERALS

Vitamins and minerals perform many specific and individual functions. They do not provide energy in the sense of calories, but they are important in maintaining the function of the cells in your body. In some instances problems can occur if you become deficient in a vitamin or mineral. To prevent this from happening you should use the gastric bypass diet recommendations and be sure to include enough protein in your diet to assure that you meet your vitamin and mineral needs.

Vitamin and Mineral Supplements

Manufacturer	Product Name	Value	Website
Multivitamins			
Wyeth Consumer Healthcare	Centrum Complete Chewable	Ca 108 mg B12 6mcg Fe 18mg	www.centrum.com
Bariatrix International	BariVitamin	Ca 162mg B12 9mcg Fe 27mg	www.bariatrix.com
GNC	Chewable Mega Teen Multivitamin	Ca 100mg B12 18mcg Fe 18mg	www.gnc.com
Resource	Optisource Chewable	Ca 250mg B12 125 mcg Fe 7.5mg	www.walgreens.resource.com
Vista Med Tech	Chewable Wellness Formula	Ca 300mg B12 150mcg Fe 18mg	www.vistavitamins.com
	Prenatal Multivitamin	Ca 250mg B12 18mcg Fe 18mg	
Bayer	Flinstones Chewable	Ca 100mg B12 6mcg Fe 18mg	www.bayercare.com
Calcium			
Global Health Products, Inc	Powdered UpCalD	Ca 500mg Vitamin D 250IU	www.globalhp.com
Buried Treasure	Calcium Plus liquid	Ca 500mg Mg 250mg Vitamin D 200IU	www.lifelinefoods.com
Twinlab	Calcium Citrate Wafers	Ca 500mg Mg 250mg Vitamin D 200IU	www.twinlab.com
Solaray	Calcium Citrate chewable	Ca 500mg	www.nutraceutical.com
Wyeth Consumer Healthcare	Caltrate 600 Plus Chewable	Ca 600mg Vitamin D 200IU	www.caltrate.com

**If other brands are purchased, make sure 100% US R.D.A. is listed for Vitamin B-12, Folic Acid, Iron and Zinc.

WHY VITAMINS AND MINERALS

Multivitamin- A good multivitamin is important to cover all nutritional bases, especially just after surgery when you are very limited in your diet. Still, this should be continued for life. A chewable children's vitamin is recommended, in order to avoid occlusion. After one month after surgery, you may be able to change from a children's chewable MVI to an adult MVI or Prenatal MVI. Immediately after surgery, take the MVI twice per day (once in the morning and once at bedtime). After one month, suggest taking the MVI at bedtime.

Thiamine-Thiamine (vitamin B-1) helps the body cells convert carbohydrates into energy. It is also essential for the functioning of the heart, muscles and nervous system. A deficiency of thiamine can cause weakness, fatigue, and nerve damage. A total absence of thiamine can cause the disease called beriberi, which is very rare in the United States. It has recently been documented in gastric bypass patients who do not adequately take nutrition supplements.

Vitamin B-12- Vitamin B-12 is essential to growth and cell reproduction. Your nervous system is dependent on vitamin B-12, which is mainly found in animal foods. This vitamin requires gastric acid in order to be absorbed. Although the body stores a large amount of vitamin B-12, this type of deficiency has been documented after gastric bypass surgery. B-12 can be taken in a variety of forms, but the sublingual type is more readily absorbed. Take either 350 mcg daily or 1000 mcg weekly of sublingual vitamin B-12. Recommend you not take this vitamin on an empty stomach.

Calcium- In order to maintain bone strength, and avoid osteoporosis, it is necessary to take a calcium supplement. Most people require 1000-1500mg of calcium per day. Calcium Citrate is more easily absorbed, because it does not depend on gastric juice. Do not take calcium at the same time as iron or within 1-2 hours of taking any medication. Recommend taking 500 mg calcium citrate in 2-3 doses daily.

Iron- Without sufficient iron, your body cannot manufacture enough red blood cells that transport oxygen to all the body parts. A deficiency in iron results in anemia, which symptoms include light-headedness, weakness, and dizziness. Ferrous fumarate or ferrous gluconate are thought to be better absorbed than other types. Liquids such as coffee, tea, and cola, hinder absorption, while vitamin C-rich foods improve absorption. Recommend taking iron with food but not with the above products or a calcium supplement.

A commitment to a vitamin regimen is essential after gastric bypass surgery. It helps to increase your chances for continued health many years after your surgery. It is advisable to begin your vitamin/supplement regimen the second week after surgery. Also, remember to follow-up with your primary care physician after surgery.

HYDRATION AND FLUIDS

Our bodies need water to carry out the simplest functions. When we do not drink enough water, our bodies do note work as well. The following reasons are why water is an important nutrient in our daily lives:

1. Water helps flush toxins out of our bodies. Drinking enough water can help prevent a kidney/bladder infection.
2. If the kidneys are unable to flush out all of the toxins, these toxins are sent to the liver. This prevents the liver from doing its normal functions including metabolizing stored fat into energy. So the liver uses less fat, and weight loss stops.
3. When the body is low on water, it tries to hold onto the water in case it needs it later. This can lead to water retention.

Dehydration is the excessive loss of body water. It can be caused by inadequate intake, excessive use of diuretics, vomiting, diarrhea and excessive sweating due to exercise or fever. There are varying levels, ranging from mild to moderate to severe dehydration. Signals of dehydration include the following symptoms: headache, stomach ache, constipation, fatigue, low back pain, confusion, depression, and even water retention.

Urine color is usually an adequate gauge of hydration status. Water excreted from the body that is pale yellow and with little odor indicates proper hydration. Dark colored urine suggests dehydration. If you are taking vitamin/mineral supplements, this will not be an accurate indicator because the excretion of excess vitamins makes your urine bright yellow. Thirst should not be used as a measure of when to drink water, since thirst is the last outward sign that you are already dehydrated. Instead, to avoid dehydration, spread out fluid intake throughout the day and evening.

Your fluid goals are six to eight cups of non-caloric liquids each day between meals and never during meals. Drink 1-2 oz every 10-15 minutes. Remember to sip fluids and not to gulp. Recommend water and decaffeinated tea or coffee. You must eliminated high-calorie drinks such as milkshakes, soda pop, beer and other beverages from your diet. Consuming high-calorie liquids allows you to absorb calories without creating a sensation of fullness. Do not forget to wait 30 minutes after drinking before you eat a meal. Then after the meal, you must wait another 30 minutes before you resume taking liquids.

**If you are unable to take in adequate fluids for hydration, contact the Surgery Clinic, your Registered Dietitian, or go to the ER to be screened for dehydration.

FOOD INTOLERANCES

After surgery, food tolerances vary greatly from one person to the next. Some patients can tolerate just about anything while others have to be very selective in what they eat to avoid stomach pain, nausea, vomiting or diarrhea. While no two people are alike, there are certain foods that typically cause problems among most gastric bypass patients such as:

Milk (if lactose intolerant)	White Bread
Hamburger meats w/gristle	Refined White Flour Foods
Tough meats	Wide pasta noodles, rice
Dry meats	Bran
Fried foods	Granola
Highly seasoned spicy foods	Seeds, nuts & popcorn
Fibrous vegetables (celery, corn, (cabbage, beans, vegetable skins)	Coconut
Mushrooms	Ice cream, milkshakes
Cucumbers, pickles	Candy, chocolate
Orange & grapefruit membranes	Sugary beverages
Dried fruit	Carbonated beverages
Peanut Butter	Pies, cakes & cookies




EXERCISE

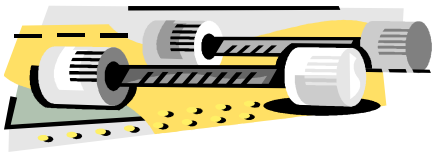
Exercise is an extremely important part of a weight management program, including the gastric bypass surgery. Exercise helps to balance the loss of lean body mass and the reduction of resting metabolic rate that inevitably accompany even a well-managed weight reduction program. By lowering glycogen stores, aerobic exercise promotes the use of fat for fuel. Resistance training increases lean body mass, adding to the resting metabolic rate and the ability to utilize more of the energy intake. Resistance training also increases bone mineral density, especially important for women. A combination of aerobic and resistance training is optimal.

Whatever the selected exercise, it should be readily available, pleasant, affordable, and easy to do. Exercise contributes to well-being and self-esteem, even if weight loss is not achieved. Exercise also helps the individual maintain weight loss. It has been demonstrated that weight regain is significantly less likely to occur when physical activity is combined with any other weight reduction method.

RECOMMENDATIONS:

Start exercising slowly, and gradually increase the intensity. Trying too hard at first can lead to injury. Your exercise can be done all at one time or intermittently over the course of the day. Initial activities may be walking or swimming at a slow pace. You can start by walking slowly for 30 minutes, 3 days a week. Then build to 45 minutes of more intense walking at least 5 days per week. **All adult should set a long-term goal to accumulate at least 30-60 minutes or more of moderate-intensity physical activity on most and preferably all days of the week.** Also, try to change everyday activities; for example, take the stairs instead of the elevator.

**Prior to starting any exercise routine, please get the approval of your surgeon and/or PCM.



COMMON COMPLIANTS

Nausea/Vomiting

Nausea and vomiting are inevitable, especially right after surgery as you try new foods and figure out what you can and cannot tolerate. You most likely will experience symptoms if you advance your diet too quickly, eat too fast, drink liquids while eating or eat more than the pouch can comfortably hold.

- Keep a list of known offending foods
- Incorporate only one new food per meal
- Go back to liquids temporarily until symptoms resolve
- Seek medical attention if symptoms continue for > 24 hours

Diarrhea and Constipation

Some patients experience loose stools in the beginning due to the body's response to malabsorption. This usually resolves over time. Patients should have 1-2 normal bowel movements per day. Constipation may result from inadequate fluid and/or fiber intake. If constipation becomes a problem:

- Try 4-6 ounces of prune juice per day
- Eat soft cooked beans, lentils, fruits or vegetables for fiber
- Don't eat cheese or peanut butter, these are binding foods
- Exercise (stimulates bowel function)
- Consume adequate fluids
- Take a fiber supplement such as Citrucel (check w/Dr. first)

Headaches/Dizziness

If you experience headaches or feel dizzy or lightheaded, you may be dehydrated. This can happen if you are losing fluids from frequent vomiting or diarrhea or just not drinking enough throughout the day.

- Make sure your urine is clear or light-colored
- Do not drink caffeinated beverages
- Add salt or soy sauce to foods, drink salty soups or broth
- Drink at least 64 oz. of calorie-free beverages every day

DINING OUT

- It is OK to order children's "portions" but DO NOT order from the children's "menu", these foods are typically high in fat.

- Order Ala Carte. Some restaurants price items like chicken breasts and sides of vegetables or potatoes separately from an entire entrée.

- Make sure foods are baked or broiled and come to your table plain and not cooked in heavy oils, butter, cream sauces or laden with condiments such as mayonnaise.

- Share a plate with a friend or spouse.

- Ask for a take out container when your food arrives. Place ½ the entrée in the container and save for a meal the next day.

- Remember not to drink liquids with your meal.

- Carry healthy snacks at all times to avoid stopping for a quick bite to eat when hunger strikes. Most convenience foods and fast foods are high in fat or sugar.

- Use the same dietary guidelines when dining out as if you ate at home.

READING THE FOOD LABEL

Nutrition Facts

Serving Size: ¾ cup (60g)
Servings per Container: about 10

Amount per Serving	
Calories **120**	**Calories from Fat 10**
	% Daily Value*
Total Fat **1g**	**2%**
Saturated Fat 0g	**0%**
Polyunsaturated Fat 0g	
Monounsaturated Fat 0g	
Cholesterol **0 mg**	**0%**
Sodium **35 mg**	**1%**
Total Carbohydrate **28g**	**9%**
Dietary Fiber 10g	**40%**
Sugars 7g	
Protein **8g**	

Vitamin A	**0%**	•	**Vitamin C**	**0%**
Calcium	**0%**	•	**Iron**	**8%**

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

Calories per gram

Fat 9 • Carbohydrate 4 • Protein 4

1. Start exploring the nutrition facts of your product by looking at the serving size. Serving sizes are based on the amount of food people typically eat (not necessarily your portion size after surgery). The size of the serving on the food package influences all the nutrient amounts listed on the label.
2. Look at the calories when comparing products. Eating too many calories per day is linked to overweight and obesity.
3. Recommendation for Americans is a low-fat diet, which is 25-35% total calories as fat. For the food label, recommended 3 grams of fat or less per 100 calories or serving.
4. Saturated fat, trans fat, cholesterol, and sodium intake should be as low as possible. Aim for less than 1 gram or less of saturated fat and trans fat per serving, less than 20 mg cholesterol per serving, and less than 140 mg sodium per serving. A high sodium product is greater than 400 mg per serving.
5. Most Americans do not get enough fiber. Recommendation is at least 3 grams fiber per serving for whole grains, fruits and vegetables. For cereals, aim for 5 grams fiber per serving.
6. No specific recommendations for carbohydrate or sugars according to the food label. Remember sugars listed on the Nutrition Facts panel include naturally occurring sugars (fruit and milk) as well as those added to food or drink. Check ingredient list for specifics on added sugars.

WEIGHT PLATEAUS

It's inevitable. Anyone who has lost a large amount of weight (more than 10-15 pounds) has hit one or more weight loss plateaus. The weight loss plateau is a period of body adjustment, where your body "catches up with itself". Patience is the key during weight plateaus. After gastric bypass surgery, may individuals experience weight plateaus every 3-4 months during weight loss.

There are two types of plateaus. The first plateau is the short plateau, lasting 2 weeks to 4 weeks. The short plateau is the kind that all active "dieters" run into throughout their weight loss efforts. It is not necessary to make adjustments for this type of plateau, because your body is simply re-adjusting to your new weight. Over time (2-4 weeks) you will naturally start losing weight again, as long as you continue your healthy diet and exercise program. Patience is all you need to get past a short plateau.

The second type of plateau is the long-term plateau, which lasts for longer than 4 weeks. If you go for more than 4 weeks without losing weight, AND you are continually following a nutritious diet and exercise program, then you need to make some changes. A plateau lasting for longer than 4 weeks is because you are no longer asking your body to go beyond its point of comfort. Here is an explanation: When you first start a new way of eating and a new exercise program, everything is a total shock to your body. All of a sudden you are filling the body with good healthy food full of nutrients, and you are pushing your body so that it responds to physical activity. You burn a high number of calories because it requires a ton of effort just to do simple exercise. Over time, you adjust and become more efficient at exercise, and it no longer requires the same amount of calories that it once did. If you do not change your activity, and continue to eat the same amount of food, you will eventually stop losing weight. The same principle applies to food. If you cut your calories down to 1500 per day, and lost 15 pounds this way, your new weight may use that 1500 calories for maintenance now, rather than weight loss. It's as simple as calories in = calories out.

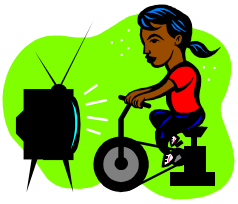
How do you break out of this long-term plateau? There are several things you can try, but the most important thing to remember is CHANGE. Any change is worth a try to shake things up a bit. Let's start with food intake: Have you been taking in the same number of calories or fat grams for a long period of time or have they started to increase due to increased portion sizes? If so, then you need to throw your body off, and there are a couple of ways to do this. You can cut your calories or fat grams to adjust for your new weight. Some individuals may need to try increasing calories or fat grams by a small amount each day. You can switch from eating 3 square meals per day to 6 smaller meals throughout the day. You can eat your largest meal in the morning and smaller meals at lunch and dinner. You can increase your water intake. In the exercise department, you need to find ways to further challenge your body. You can try many different strategies: You can completely change your exercise method. If you only walked before, you can switch to cycling.

You can introduce cross-training into your program. If you only walked before, alternate with cycling or aerobics. You can exercise for 5-10 minutes longer each day. You can exercise harder during your normal session time. You can introduce interval training, where you alternate intensity levels throughout your workout. You can add another day of exercise to your week. You can switch the time of day you exercise. You can start lifting weights. You can vary which activity you do first.

There are many different ways to TRY and break a plateau. First start by keeping a food and physical activity record. Try a few changes such as eating habits and physical activity. It takes some experimenting to find out what will work for you, at this particular time in your weight loss journey. You can expect your new method will become effective within 2 weeks. If you are not seeing any other results, then you need to change your method again. If you are close to your goal weight (or ideal weight within reason) and none of these methods work, then you need to look at two factors: Have your body fat tested. It is very possible that you are already at your ideal body fat level, and your body is not going to allow any further losses. Accept your new weight, and congratulate yourself for the long, hard road you just traveled!

BEHAVIOR MODIFICATION TECHNIQUES

1. Keep a record of everything you eat (food diary).
2. Use smaller plates/bowls to make a meal appear larger and take smaller portions.
3. Slow Down. Allow at least 20 minutes to eat.
4. Concentrate on taste and texture of food.
5. Do not eat standing up.
6. Do not watch television or do any other activity while eating—make eating an event in itself.
7. Eat at the table with a special place setting, even if you are alone. Never eat "all over the house."
8. Avoid buffets.
9. Brush your teeth after meals/snacks.
10. Plan an activity to do after dinner instead of eating if this is your usual snack time.
11. If possible, take a walk after supper.
12. Keep leftovers in an opaque, labeled container so you won't see it when opening the refrigerator.



13. Keep raw vegetables on hand for snacks.
14. Develop a hobby instead of eating while watching television.
15. Plan menus at least one day in advance.
16. Never shop for food on an empty stomach. Always take a list from a pre-planned menu.
17. Treat yourself to a non-food related reward for not overeating and/or weight loss.
18. Try not to think of your eating plan as a diet. You are developing new eating behaviors, which will assist in weight loss as well as improved health.

DAILY LIFESTYLE LOG

Time	**Amount** (tsp,Tb,oz, cups)	**Food/ Drink/ Condiment/ Supplement** (method of preparation, brand names, place of preparation)	**Tolerance** (nausea, vomiting, diarrhea)
7:00-8:00 am	6 - 8 oz	Fluid	
8:30 am		**Breakfast and chewable vitamin & B12 or calcium**	
30 min			
9 am	6-8 oz	Fluid	
10 am	4-8 oz	Fluid or ***Protein Supplement** (as indicated by RD or MD)	
11:00-12:00 pm	6-8 oz	Fluid	
12:30 pm		**Lunch and Iron supplement if indicated**	
30 min			
2:00 pm	6-8 oz	Fluid	
3:00 pm	4-8 oz	Fluid or *** Protein Supplement** (as indicated by RD or MD)	
4:00 pm	6-8 oz	Fluid	
5:00 pm	6-8 oz	Fluid	
6:30 pm		**Dinner and chewable vitamin with minerals**	
30 min			
8 pm	8 oz	**Fluid and calcium**	
9 pm	8 oz	Fluid	
	Minimum. of 30 minutes daily	**Daily Exercise & Activity Prescription**	

Dry Measurement Conversions
3 tsp = 1 TB
2 TB = 1 oz. = 28.3 gms.
4 TB = ¼ Cup
8 TB = ½ Cup

Fluid Measurement Conversions
1 fluid oz = 30 cc's
4 oz = ½ Cup
4 cups = 16 oz = 1 pint
Goal of 8 cups = 64 oz = 2 quarts

Shopping List for the First Three Weeks

- Any sugar-free, non carbonated, caffeine free beverages, such as Diet Snapple, water, coffee, tea, sugar-free cocoa, sugar-free Tang, Crystal Light, Fruit2O
- Diet Jell-o
- Broth, miso soup (500 mg or less of sodium per serving)
- Low-Sodium V-8/Tomato Juice (8 ounces maximum daily)
- Less than two sugar-free popsicles per day
- Light, sugar-free yogurt (sugar should be under 16 grams for an 8 ounce container and 120 calories or less)
- Non-fat cream soups

Sample Menu Ideas for after 3 weeks:

Breakfast: (6 teaspoons)

2 tsp Cream of Wheat		2 tsp Oatmeal
2 tsp Scrambled Egg	or	2 tsp Milk or sugar-free yogurt
2 tsp Pureed Fruit		2 tsp Pureed Fruit

Lunch: (6 teaspoons)

4 tsp Cottage Cheese		2 tsp Pureed Turkey
2 tsp Mashed Banana	or	2 tsp Pureed Pears
		2 tsp Pureed Peas

Dinner: (6 teaspoons)

2 tsp Pureed Beef	3 tsp Mashed Potatoes with ¼ slice
2 tsp Pureed Peas	American cheese melted
2 tsp Sugar-free Custard or	2 tsp Pureed Carrots

Shopping List for Weeks 3-5

- Cereal, artificially sweetened (oatmeal, cream of wheat, grits, Wheatena)
- Eggs (fresh or egg substitute)
- Fruit (peeled, seedless fresh fruit(no melon), canned fruit in it's own juice, baby food fruit with no added sugar), unsweetened applesauce
- Smooth peanut butter
- Saltines or melba toast
- Pureed baby foods with no added sugar (typically 11 grams of sugar in baby fruit)
- Instant, frozen or home-made mashed potatoes
- Canned, soft vegetables (low-sodium, no seeds)
- Live pate or salmon mousse
- Hummus
- Tofu
- Navy, split pea, black bean, or lentil soup (500 mg of sodium or less/serving)
- Low-fat cottage cheese
- Low-fat or non-fat cheeses
- 90-120 calorie sugar free yogurt (yogurt should have less than 16 grams of sugar in an 8 ounce serving)
- Water-packed canned chicken, tuna or salmon
- Low-fat mayonnaise
- Low-fat tub margarine
- Sugar-free Jell-o
- Low-fat macaroni and cheese
- Skim or 1% milk, Lactaid milk, low-fat buttermilk or soy milk

Sample Menu Ideas:

- 1 tablespoon of small curd, low fat cottage cheese
  1 tablespoon of unsweetened applesauce or baby food fruit

- 1 tablespoon of any hot cereal, unsweetened
  ½ scrambled egg
  ½ teaspoon margarine

- 1 tablespoon of canned tuna mixed with low-fat mayonnaise
  1 saltine
  1 tablespoon blended fruit

- 1 tablespoon of smooth peanut butter
  1-2 saltine crackers

- 1 tablespoon of pureed meat
  1 tablespoon of pureed vegetables
  ½ teaspoon of light margarine

- 1/8 cup of pureed casserole that includes meat/vegetable/starch

- 1 tablespoon of bran cereal softened in milk
  1 tablespoon of yogurt

- ¼ slice of low fat American cheese
  ¼ slice toast
  ½ "thinly" sliced banana

- ¼ of a 6" flour tortilla
  3 teaspoon of low-fat refried beans
  1 teaspoon of low fat shredded cheese

- 4 teaspoon of tuna noodle casserole
  2 teaspoon of cooked green beans

Avoid the following foods for the first 5 weeks

- Nuts, seeds, popcorn, citrus fruits, melon and fresh vegetables
- Raw vegetables, bread, fibrous crackers
- Food with a high fat content

Six Weeks through Six Months

Meal progression

- Eight weeks after surgery you should be eating up to 9 teaspoons (3-4 tablespoons) per meal. Again, check with dietitian regarding advancing volume.
- Three months after surgery 12 teaspoons (1/4 cup) should be your meal maximum.
- Six months after surgery 8 tablespoons (1/2 cup) should be your meal maximum.

Meals and Beverages

- Eat until you are comfortably satisfied but not stuffed.
- When eating, cut your food to the size of your little fingernail and chew each bite to mush.
- One-third to ½ of each meal will consist of a high protein sources, the other 2/3 should provide variety.
- Eat with your family; take small bites and put your fork down in between bites to make the meal last as long as theirs.
- Do not skip meals.
- Continue to avoid liquids for one-half hour before and after meals, but remember 64 ounces/day!
- Only one small treat (sugar-free pudding or ice-cream) every other day.

Six Months and Beyond

Meal Progression

- Gradually increase meals by 1 tsp every 2 weeks.
- At six months post surgery meals can be as large as ½ cup.
- At nine months post surgery meals will be up to ¾ cup.
- One year post surgery you will have reached your goal of ½ to1 cup per meal; this will remain the size of your meals for the rest of your life.
- Each time you increase a meal size be sure to measure it out for a while until you have a very good idea of what that meal size really looks like.

Meals and Beverages

- Continue to only eat until you are comfortably satisfied
- Only eat at mealtimes. Be aware of emotional eating and do not snack.
- Continue to stop drinking for one-half hour before and after each meal.
  As you increase your meal sizes, your desire to drink fluids with a meal may also increase. For this reason it is especially important that you drink adequate fluids between meals.
- Water may help to curb your appetite between meals if you find you are getting hungry.

Important Measurement Conversions:

- Be sure you have a set of standard measuring cups and measuring spoons.
- Meats should be weighed on a kitchen scale.
- Use a liquid measuring cup for all fluids.
- Use standard measuring cups and a standard teaspoon and tablespoon for measuring all other foods.

1 tablespoon (tbsp) =	3 teaspoons (tsp)
1/16 cup =	1 tablespoon
1/8 cup =	2 tablespoons
1/4 cup =	4 tablespoons
1/2 cup =	8 tablespoons
1 cup =	48 teaspoons
1 cup =	16 tablespoons
8 fluid ounces (fl oz) =	1 cup
1 pint (pt) =	2 cups
1 quart (qt) =	2 pints
4 cups =	1 quart
1 gallon (gal) =	4 quarts
16 ounces (oz) =	1 pound (lb)
2 Tbsp =	~ 1 oz