



## DIETARY GUIDELINES AFTER GASTRIC BYPASS SURGERY

The purpose of the following guidelines is to reduce the symptoms associated with gastric bypass surgery, promote long-term satisfaction, and to achieve and maintain a desirable weight. The diet following surgery is divided into three phases.

### Phase I: First 2 weeks after surgery Sugar Free, Non-carbonated Liquids Only

#### Acceptable beverages include:

- Water
- Flavored waters that are sugar-free and non-carbonated
- Crystal Light® (generic brands are fine)
- Broth, bouillon, consommé (chicken, beef, or vegetable)
- Sugar-free popsicles
- Sugar-free gelatin
- Tea: unsweetened or artificially sweetened; ice or hot; black, green, or herbal (decaffeinated is best)
- Coffee (decaffeinated is best)
- Sugar-free hot cocoa
- Sugar-free hard candy

**During week 2 after surgery** you may try milk products. Use caution as some people experience lactose intolerance after surgery. **Acceptable beverages include:**

- Skim, 1%, Ultrskim, or Superskim milk
- Fat-free or low-fat soy milk, Lactaid®, or Dairy Smart
- Protein shakes (high in protein, low in carbohydrates)

If lactose intolerance is a problem, try the soy milk, Lactaid®, or Dairy Smart.

#### Avoid:

- Fruit juices
- Sports drinks
- Diet soda (or anything else carbonated)

**Suggestions for Phase I diet:**

- Increase liquids as tolerated to at least 2 quarts a day (64 oz., or 8-8 oz. cups). Drink enough fluid to keep your urine a clear, pale yellow color. If your urine becomes cloudy, dark or foul-smelling, drink more!
- Sip slowly throughout the day. Drink 8 oz. of fluid over a period of 1 hour. Do not gulp liquids or drink too quickly. Gulping or drinking too fast can cause abdominal pain and/or nausea.
- It is very important to avoid any liquids with a high amount of sugar at this time (more than 20-25 g. in an 8 oz. serving). Sugary liquids will cause dumping syndrome, which is something you do not want to experience during your first few weeks after surgery. It is a very bad feeling.
- Avoid drinking from a straw. When you drink from a straw you swallow more air, which may make you belch more often. Carbonated beverages are to be avoided for the same reason, they will cause excess gas.
- Pre-freeze or refrigerate plastic bottles of water, Crystal Light®, tea, etc. and carry the bottle around with you so that you can take small, frequent sips of fluid throughout the day and avoid becoming dehydrated.
- During this phase of the diet, begin taking a chewable multivitamin/mineral supplement twice a day (Flintstone's® Complete and Centrum® Chewable are excellent examples).

**Phase I Sample Menus**

**Note: Times of day are irrelevant! The point is to sip constantly during your waking hours.**

**Week 1-** generally sip on 8oz. fluid over a one hour period of time.

|  |                                       |   |
|--|---------------------------------------|---|
| <u>8am</u> : 8oz. water & multivitamin     | <u>12pm</u> : 8oz. chicken broth      | <u>4pm</u> : 8oz. Crystal Light®            |
| <u>9am</u> : 8oz. decaf coffee w/ Splenda® | <u>1pm</u> : ½ cup sugar-free gelatin | <u>5pm</u> : 8oz. vegetable broth           |
| <u>10am</u> : 8oz. water                   | <u>2pm</u> : 8oz. water               | <u>6pm</u> : sugar-free popsicle            |
| <u>11am</u> : 8oz. Crystal Light®          | <u>3pm</u> : 8oz. water               | <u>7pm</u> : 8oz. herbal tea & multivitamin |

32oz. water + 16oz. Crystal Light + 16oz. broth + 16oz. decaf coffee/tea + 4oz. gelatin + 1 popsicle = at least 84oz. fluid!

**Week 2-** may add low-fat or fat-free milk if desired. Doing this will give you more variety in your liquids and also a source of high-quality protein. If abdominal cramping, bloating, nausea and/or gas is experienced with cow's milk, try soy milk or Lactaid®.

|   |  |  |
|---|--|--|
| <u>8am</u> : 8oz. water & multivitamin  | <u>12pm</u> : 8oz. beef broth            | <u>4pm</u> : ½ cup sugar-free gelatin  |
| <u>9am</u> : 8oz. skim milk             | <u>1pm</u> : 8oz. decaf ice tea w/ lemon | <u>5pm</u> : 8oz. skim milk            |
| <u>10am</u> : 8oz. water                | <u>2pm</u> : sugar-free popsicle         | <u>6pm</u> : 8oz. chicken broth        |
| <u>11am</u> : 8oz. sugar-free hot cocoa | <u>3pm</u> : 8oz. water                  | <u>7pm</u> : 8oz. water & multivitamin |

## **Phase II: Soft Foods Only for 4 weeks**

**Acceptable foods/beverages include all liquids listed above plus:**

**Protein** (include one of the following foods at each meal)

- Fat-free or low-fat cottage cheese and ricotta cheese
- Fat-free or low-fat, artificially sweetened yogurt- try one of the following flavors:
- Sugar-free, fat-free pudding
- Eggs, egg whites, Eggbeaters® (poached, scrambled, soft-boiled)
- Sugar-free egg custard
- Tofu
- Canned baby meats/pureed meats
- Sliced/shredded fat-free or low-fat cheese
- Canned/vacuum packed tuna, salmon, chicken
- Baked fish that flakes easily with a fork (cod, salmon, tilapia, crab meat, etc.)
- Thinly-sliced lean deli turkey breast or ham
- Lean ground beef, pork, or turkey

### **Fruits**

- Banana
- Unsweetened applesauce
- Diced peaches or pears (canned in own juice or light syrup)

### **Vegetables**

- Soft-cooked vegetables, like carrots, green beans, broccoli, cauliflower (mushy, not crunchy)
- Tomato juice, vegetable juice

### **Starch/Other**

- Soup, like tomato, cream of broccoli, and eventually chili (avoid corn, peas, noodles, rice, and pasta)
- Mashed potatoes, sweet potatoes, or winter squash
- Saltines, soda crackers
- Toast

\*May add nonfat dry milk powder or protein powder to foods and beverages to increase protein content!

### **Allowed Condiments**

- Artificial sweetener (Splenda®, Equal®, etc.)
- Non-dairy, fat-free, or powdered creamer
- Light margarine (free of trans-fats)
- Ketchup
- Mustard
- Light or fat-free mayonnaise
- Sugar-free jam, jelly, or preserves
- Reduced-fat and fat-free salad dressings

### **Use Sparingly**

- Butter and regular margarine
- Cream
- Regular mayonnaise
- Cream cheese

- Peanut butter

**Avoid-** these foods usually are not tolerated well this soon after surgery.

- Berry-flavored yogurts with seeds (strawberry, blackberry, mixed berry, etc.)
- Raw fruits and vegetables (except bananas)
- Corn and peas
- Pasta, noodles, rice, bread

***Suggestions for Phase II diet:***

- During this phase, begin the practice of eating only 3 small meals a day. Do not snack or “graze” throughout the day. Grazing and snacking lead to poor weight loss after surgery. Grazing is also associated with significant weight regain after surgery.
- Make it a habit to eat very slowly (putting your fork down between each bite) and chew your food very thoroughly (to a mushy consistency). Try to make each meal last 20 minutes.
- Learn to stop eating when you feel full, which initially may be after only 2 or 3 bites of food. Indications of fullness include a feeling of pain or pressure in the center just below your rib cage, nausea, or pain in your shoulder or upper chest. **DO NOT EAT UNTIL YOU FEEL STUFFED!** Eat only until you feel satisfied. If you continuously eat until you feel stuffed, you will stretch your stomach pouch and defeat the purpose of the surgery.
- Your meals will be about 4 oz. (½ cup) in total size. Use small plates and cups, instead of large plates and bowls, for your meals.
- At this time, get into the habit of eating at least 2oz. (or ¼ - ½ cup) of a protein rich food at each meal. In addition, eat the high protein portion of your meals first. If you are unsure which foods are high in protein, see the protein section of this handout. Aim for at least 60grams of protein everyday.
- Usually it is not hard to consume enough protein from food alone as long as you concentrate on eating high protein foods at each meal. Protein supplements (powders, shakes, bars, etc.) in most cases are not necessary. However, if you are truly concerned that you are not getting enough protein, or if you are experiencing a lot of nausea and vomiting and cannot consume high protein foods at meals on a consistent basis, then speak to your dietitian about protein supplement options and how often they should be taken.
- Continue to drink 2 quarts of liquid each day (8-8 oz. cups). However, do not drink liquids for 30 minutes prior to mealtime (to make sure your stomach is empty), do not drink anything with your meal (to allow room for food), and do not drink anything for 30 minutes after a meal (to prevent “washing” the food through the stomach too quickly). This will make a profound impact on your feeling of satiety (satisfaction and fullness) after eating.
- During this phase, begin taking the rest of your vitamin supplements (calcium, iron, and B12). Refer to the vitamin section of this booklet.

**Phase II Sample Menus  
Week 3**

| <u>Breakfast</u>  | <u>Lunch</u>   | <u>Dinner</u>   |
|---|--|---|
| ½ c. fat-free artificially-sweetened vanilla yogurt   | ¼ c. low-fat cottage cheese<br>¼ c. unsweetened applesauce           | 1/2-1 c. tomato soup (made w/ skim milk)<br>2-3 saltine crackers                            |
| <u>Mid-morning</u>  | <u>Mid-afternoon</u>   | <u>Evening</u>  |
| 8 oz. skim or 1% milk<br>Sip 16 oz. of water or non-caloric beverage throughout the morning | Sip 16 oz. of water or non-caloric beverage throughout the afternoon | 8 oz. skim or 1% milk<br>Sip 16 oz. of water or non-caloric beverage throughout the evening |

Using skim milk, the above sample menu provides 420 calories, 33.5g. of protein, and 64oz. (2 quarts) of fluid.

**Week 4**

| <u>Breakfast</u>   | <u>Lunch</u>   | <u>Dinner</u>  |
|--|--|--|
| ¼ c. low-fat cottage cheese<br>¼ c. diced peaches                        | ½ c. canned tuna mixed w/<br>2 T. extra-firm tofu, 1 T. fat-free sour cream, seasonings to taste | 1-2 thin slices each lean deli turkey breast & reduced-fat Swiss cheese, rolled with 1 T. light mayonnaise |
| <u>Mid-morning</u>   | <u>Mid-afternoon</u>   | <u>Evening</u>   |
| 8oz. skim milk<br>16oz. water or non-caloric beverage throughout morning | 8oz. skim milk<br>16oz. water or non-caloric beverage throughout afternoon                       | 16oz. water or non-caloric beverage throughout evening<br>8oz. herbal tea                                  |

The above sample menu provides 510 calories, 54.5g. of protein, and 72oz. of fluid.

**Week 5**

| <u>Breakfast</u>  | <u>Lunch</u>   | <u>Dinner</u>  |
|---|--|--|
| ¼ c. scrambled Eggbeaters®<br>w/ 2T. reduced-fat shredded cheddar<br>¼ c. diced pears | ¼ c. canned chicken<br>1 T. light mayonnaise                                     | 2oz. baked salmon<br>¼ c. green beans w/ 1 t. light margarine            |
| <u>Mid-morning</u>  | <u>Mid-afternoon</u>   | <u>Evening</u>   |
| 8oz. herbal tea<br>16oz. water or non-caloric beverage throughout morning             | 8oz. vegetable juice<br>16oz. water or non-caloric beverage throughout afternoon | 8oz. skim milk<br>16oz. water or non-caloric beverage throughout evening |

The above sample menu provides 452.5 calories, 41.5g. of protein, 72oz. of fluid.

## Week 6

|  |   |  |
|--|---|--|
| <u>Breakfast</u><br>1 scrambled egg<br>½ slice whole wheat toast<br>1 t. light margarine   | <u>Lunch</u><br>2 thin slices lean deli ham<br>2 thin slices reduced-fat cheese<br>1 T. mustard | <u>Dinner</u><br>½ c. chili w/ beans<br>2-3 saltine crackers                               |
| <u>Mid-morning</u><br>1 Carnation® Instant Breakfast® for the Carb Conscious<br>16oz. water or non-caloric beverage throughout morning | <u>Mid-afternoon</u><br>16oz. water or non-caloric beverage throughout afternoon                | <u>Evening</u><br>8oz. skim milk<br>16oz. water or non-caloric beverage throughout evening |

The above sample menu provides 675 calories, 54g. of protein, 64oz. of fluid.

### **Phase III: 6 weeks and beyond Time to experiment!**

Six weeks following surgery, you can begin to re-introduce a variety food back into your diet. We recommend that you begin with softer foods before moving to solid foods (example: try cooked vegetables before eating raw vegetables and canned fruits before eating raw fruits). But at this point in time, you can begin trying more solid pieces of meat, and raw fruits and vegetables again.

It is important to eat at least 4 to 6 ounces of meat everyday. Be sure that the meat you are eating is moist and tender and avoid any tough, fatty or gristly meats. Your total protein goal will be at least 60grams everyday. See the protein section to learn more about high protein foods.

#### ***Suggestions for Phase III diet:***

- Continue to eat the high protein foods first when you sit down to eat a meal. The amount of food that you are able to eat after surgery is so small that you must focus on getting enough protein in your diet before anything else.
- Develop an exercise routine. This is a critical component to your success after surgery. Exercise will help you burn more calories and build lean body mass or muscle. The more muscle you have, the more calories you will burn. You will lose weight faster and keep it off as long as you are exercising.
- Recognize when you are full (pain or pressure in the center just below your rib cage, nausea, or pain in your shoulder or upper chest). Learn to stop eating when you are full, not when you are stuffed. If you eat until you are stuffed, you will stretch your stomach pouch.
- Continue the habit of only eating 3 small meals per day and avoid snacking and grazing! Snacking and grazing throughout the day will prevent you from reaching your weight loss goals.
- Remember that the only reason to eat is because you are hungry. If you are not hungry, do not eat.

**Phase III Sample Menus  
Week 7**

Breakfast  
2 slices turkey sausage ¼-  
½ c. oatmeal

Mid-morning  
8 oz. GNC  
ProPerformance® 100%  
Whey Protein supplement  
(made w/ skim milk)  
16 oz. water or non-caloric  
beverage throughout the  
morning

Lunch  
¼ c. hummus  
½ c. fresh dipping veggies  
(cherry tomatoes, celery,  
red peppers, etc.)

Mid-afternoon  
8oz. herbal tea  
16oz. water or non-caloric  
beverage

Dinner  
2 oz. shredded pot roast  
with gravy  
¼-½ c. cooked carrots

Evening  
8 oz. skim or 1% milk  
16 oz. water or non-caloric  
beverage throughout the  
evening

This sample menu provides 687.5 calories, 69g. of protein, 72oz. of fluid.

**Week 8**

Breakfast  
½ c. fat-free, artificially  
sweetened yogurt (any  
flavor)  
¼ c. mixed fresh berries

Mid-morning  
16oz. Revival Soy Protein  
Shake made w/ soy milk  
16oz. water or non-caloric  
beverage

Lunch  
¼-½ c. salad greens  
2oz. chicken strips  
2 Tbsp. fat-free Ranch  
dressing

Mid-afternoon  
16 oz. non-caloric  
beverage or water  
throughout the afternoon

Dinner  
2oz. tender pork loin  
¼ baked sweet potato w/  
1 T. light margarine

Evening  
8oz. soy milk  
16oz. water or non-caloric  
beverage

This sample menu provides 800 calories, 81g. of protein, 72oz. of fluid.

## TROUBLESHOOTING

Changing your eating habits will be important if the operation is to be a success. Although your smaller upper stomach and smaller opening that releases the food and liquid into the intestine will help, several of the following problems may be encountered once eating is resumed after surgery.

### *Managing Liquids*

- Fluids are needed to replace normal water loss and to prevent dehydration. We recommend that you try to drink 2 quarts (or 64 oz.) of liquid (mostly water and non-caffeinated beverages) every day.
- Avoid liquids with meals, saving room for solid foods, and preventing the “washing” of food from the stomach. Stop drinking fluids at least 30 minutes before a meal, and wait at least 30 minutes after the meal, to allow for digestion of food. This will make a profound impact on your feeling of satiety (satisfaction or fullness) after eating.
- When drinking liquids, sip them slowly. If liquids are gulped too quickly, abdominal cramping, discomfort, and/or vomiting may occur.
- Avoid carbonated beverages and drinking from a straw for approximately 6 weeks after surgery. Doing this can help you to avoid excess gas and pressure.

### *Nausea, Vomiting, Bloating and/or Heartburn*

Nausea, vomiting, bloating and/or heartburn can occur from any of the following:

- eating and drinking too quickly
- not chewing food well enough
- drinking cold fluids
- eating too much (quantity)
- eating rich or sweet foods, fried, or high-fat foods
- eating gas-producing foods or drinking carbonated beverages

### *Dumping Syndrome*

Dumping syndrome can be a feeling of abdominal fullness, weakness, warmth, rapid pulse, cold sweats, nausea, possible vomiting, and possible diarrhea. This happens whenever foods and beverages that are too high in sugar are consumed. To avoid dumping syndrome, avoid concentrated sweets (ice cream, milkshakes, candy, pies, cookies, cake, sugar, syrup, honey, jelly, pastries, regular soda, fruit juices, barbecue sauces, etc). You may only be able to tolerate a teaspoonful of these items at a time, if any at all.

### *Blockage of the Stoma*

The new opening created by the surgery is smaller than the original opening that released food from the stomach into the intestine. This new opening may become blocked when food has not been thoroughly chewed, which can result in abdominal pain or vomiting.

If you become unable to tolerate water within the first month after surgery, call us immediately. The sooner we learn of this problem, the more likely we will be able to treat it without surgery.

To prevent blockage from occurring:

- Avoid eating high fiber foods, such as raw fruits and vegetables, for the first 6 weeks after surgery. After 6 weeks time, be sure to chew high fiber foods very thoroughly.
- Chew all foods to the consistency of mush before swallowing.
- Be careful when chewing gum; if accidentally swallowed it can cause a blockage.
- Use chewable or liquid multivitamins.

### ***Overeating***

The purpose of gastric bypass surgery is to create a smaller stomach so that it is unable to hold the large volumes of food it had held previously. Constant overeating can stretch your stomach pouch. Remember that your pouch is only 1 ounce (the size of your thumb). Meals should be about 4 ounces. The more solid the food, the less you will be able to eat. You may be able to eat 4 ounces of applesauce, but only 2 ounces of beef. Even though the amount is smaller, choose the beef because you need the protein.

To prevent stretching the pouch:

- Eat only three small meals each day, and measure your food before you eat to prevent overfilling the stomach.
- Eat slowly so that the nerve receptors in your stomach area can relay the message to your brain that your stomach is full. It takes approximately 15-20 minutes for the message of fullness to reach the brain. Take time between bites of food and stop eating as soon as fullness is experienced.
- Recognize when you are full, which can feel like pain or pressure in the center just below your rib cage, nausea, or a pain in your shoulder or upper chest. The next step is to stop eating when you feel full.
- Constant nibbling/grazing/snacking may not stretch your stomach pouch, but it is a common food behavior among people who do not meet their weight loss goals and/or regain significant amounts of weight after surgery.

### ***Under nutrition***

Total food consumption is reduced after surgery, and therefore, intake may be nutritionally inadequate.

To compensate for reduced nutrient intake:

- Consume nutrient-dense foods daily, including a variety of : lean meats, low-fat dairy, fruits and vegetables, and high fiber breads and cereals. Look for breads that have at least 2g. of fiber per slice, and cereals that have at least 6g. of fiber per cup. Avoid empty calorie foods, including soda pop, Kool-Aid, chips, pretzels, popcorn, candy, pastries, sweets, and fried foods.
- Consume adequate high biological value protein foods each day. See the section on protein for examples of such foods.
- Take the recommended vitamins (multivitamin, calcium, iron, and B12 supplements) as ordered. **THIS IS IMPERATIVE!** Refer to the vitamin section of this handout.

### ***Food Intolerance***

Food intolerance varies widely and one individual may tolerate a food that disagrees with another person. Therefore, it is important to try a variety of foods. Each individual must try new foods carefully to test his or her reactions after surgery.

The following foods may be difficult to eat, especially for the first few months:

- tough meats – dry, gristly meats may be difficult to digest
- bread – fresh, doughy bread can form a ball and “gum up” the opening from the stomach
- pasta – pasta may form a paste and be more difficult to pass

Do not be discouraged if a certain food does not agree with you once. Wait a few weeks and try it again. Your stomach just might not have been ready for the food yet.

## VITAMIN SUPPLEMENTS AFTER GASTRIC BYPASS SURGERY

It is important that you take vitamin supplements everyday for the rest of your life after having a gastric bypass. If you do not take your vitamin and mineral supplements after surgery you will become malnourished! This is because not only are you unable to consume enough food (quantity) to meet your vitamin & mineral requirements, but also because you will have a decreased ability to digest and absorb certain nutrients after having gastric bypass surgery. We recommend that you take a multivitamin, plus extra calcium, iron and B12 supplements.

Begin taking a multivitamin twice a day while on clear liquids. Add your calcium, iron, and B12 supplements when you progress to soft foods.

### *Multivitamins*

Start taking one chewable multivitamin/mineral supplement twice a day while on clear liquids. When you progress to soft foods, take them with meals. For the first few months after surgery, we recommend that you take either liquid or chewable multivitamins because they are easier to digest and absorb. Find a “complete” multivitamin/mineral supplement, meaning one that has 100% of the Daily Value (DV) for all of the vitamins and minerals. Specifically, we recommend one of the following (generic, store-brand equivalents are fine too):

- 1 Flintstone’s® Complete twice a day (one AM, one PM)
- 1 Centrum® Chewable twice a day (one AM, one PM)

About two months after surgery (or when you are able to take pills and can tolerate solid foods), you can switch to a non-chewable as tolerated. We recommend any of the following, to be taken twice a day with food (generic, store-brand equivalents are fine):

- One-A-Day® Maximum
- One-A-Day® Today
- Centrum Performance®
- Centrum® with lycopene
- Centrum® Carb Assist™

Take one multivitamin, twice a day (for example 1 at breakfast, 1 at lunch), rather than both at the same time to maximize your absorption of each vitamin.

### *Calcium*

There is typically only a small amount of calcium in multivitamins. Start taking 1000mg of calcium everyday when you progress to soft foods. Again, start with a chewable calcium supplement, and take 1 chew twice a day with meals. We recommend one of the following (or the generic, store-brand equivalent).

- Citracal® Creamy Bites twice a day
- Viactiv® chewable calcium supplement twice a day
- Caltrate® 600 Plus Chewable twice a day

After about 2 months (or when you are able to take pills and can tolerate solid foods), you can switch to a non-chewable calcium supplement. We recommend either of the following:

- OsCal or Caltrate 500mg caplets with vitamin D twice a day
- Citrical 250mg caplets +D (2 caplets, twice a day with food)

Again, take your calcium supplements twice a day in 2 smaller doses rather than taking one large dose all at once because you will absorb the smaller doses better. Also, calcium is best absorbed with taken with food.

It is important to not take the calcium and iron supplements at the same time, as they interfere with the absorption of each other. Take your calcium and iron supplements at least 2 hours apart from one another.

### ***Iron***

We recommend that you take an iron supplement daily when you progress to soft foods, in addition to the iron in your multivitamin. Iron does not come in a chewable form, but the pill should be small enough that you can swallow it without difficulty.

Nausea and constipation are common side effects of iron supplementation. For this reason, we recommend you take one of the most absorbable forms of iron, either ferrous fumarate, or ferrous gluconate. Ferrous fumarate and ferrous gluconate can both be found in over-the-counter iron supplements. Because they are the most absorbable forms of iron, they may also cause the least side effects. Listed below are some specific products we recommend and where you might find them. Take your iron supplement once a day with food.

- GNC Iron 18 (at General Nutrition Centers)
- Ferrous Gluconate 28mg Iron (at Vitamin World<sup>®</sup> stores or [www.vitaminworld.com](http://www.vitaminworld.com))
- Ferro-Sequels<sup>®</sup> (found at any pharmacy)
- Fergon (found at any pharmacy)

Iron supplements may also be better absorbed when taken with something acidic. This can be a small amount of tomato juice or orange juice, or it can be a vitamin C supplement (ascorbic acid). Finally, if there is still a problem with nausea and/or constipation, try taking your iron every other day instead of daily. A little is better than none at all!

Again, avoid taking the calcium and iron supplements at the same time, as they interfere with the absorption of each other. Take your iron and calcium at least 2 hours apart from one another. Your iron supplement is also best absorbed when taken with food.

### ***Vitamin B12***

Vitamin B12 is digested and absorbed differently than most vitamins. After gastric bypass surgery, you will no longer be able to digest and absorb sufficient amounts of B12 to maintain health. You must take your B12 in a form that directly enters the bloodstream, not through the digestive tract. There are two ways to do this.

1. Most patients opt for a monthly vitamin B12 injection at their primary care physician's office after gastric bypass surgery. Some patients also give themselves their monthly B12 injection.
2. Another option you have is to take sublingual (under the tongue) B12 lozenges that dissolve under your tongue. A 500 mcg lozenge may be taken daily. A 1000-2000mcg supplement may be taken every other day. If you purchase the 5000 mcg strength, 1 per week should be sufficient. Specific products are listed below.
  - Sublingual B<sub>12</sub> Microlozenges 500mcg (at Vitamin World® stores or [www.vitaminworld.com](http://www.vitaminworld.com))
  - Sublingual B<sub>12</sub> Lozenges 1000mcg (at GNC)

No matter how you choose to get your B12, start taking it when you begin eating soft foods.

Sample Daily Vitamin/Mineral Schedule (Note: this is an example. There is more than one way to do this!)

Breakfast:        1 chewable multivitamin/mineral supplement  
                         1 calcium chew  
                         Sublingual B12 lozenge

Lunch:            Iron

Dinner: 1 chewable multivitamin/mineral supplement  
          1 calcium chew

## PROTEIN

Adequate protein intake is of critical importance after gastric bypass surgery. At each of your 3 small meals per day there should be at least 2oz. of a high protein food, and that high protein food should be eaten first. Your total protein intake each day should be at least 60grams. There are two different kinds of protein: complete and incomplete.

Complete protein is also known as high biological value protein. This means that it contains all of the essential amino acids. Complete protein is found in most foods that come from animals. In general: 1oz. meat, fish, poultry, or cheese=7 grams; 1 egg=7 grams; ½ c. cottage cheese=14 grams; 1 c. milk=8 grams; 1 c. yogurt=6-8 grams of protein.

Lean sources of complete protein that should be a part of your diet everyday include:

- White meat chicken and turkey (not fried)
- Fish and shellfish (not fried)
- Eggs, egg whites, and egg substitutes
- Lean cuts of beef (round, sirloin, flank, tenderloin, rib/chuck/rump roast, ground round)
- Lean cuts of pork (fresh ham, Canadian bacon, center loin chop, tenderloin)
- Ham
- Veal or lamb chops and roasts
- Lean deli meats
- Reduced fat cheeses, Parmesan, Mozzarella, and Ricotta cheese
- Venison, duck, pheasant
- Low-fat or fat-free cottage cheese and yogurt
- Skim or 1% milk, soy milk, lactose-free milk

High-fat, high-calorie sources of complete protein, which should be reserved for special occasions only, include:

- Bacon and sausage
- Spareribs
- Kielbasa
- Cheese (American, Cheddar, Swiss, etc.)
- Bologna, salami, pepperoni
- Hot dogs
- Anything fried, include fried chicken and fish

Incomplete protein does not contain all of the essential amino acids and is found in plant foods. This includes beans, lentils, vegetables, starches (cereals, pasta, bread, grains, etc.), nuts, and peanut butter. These foods definitely count toward your total protein intake everyday, but a greater emphasis should be placed on complete, high biological value sources of protein. In general: ½ c. beans or lentils=10 grams; ½ c. cooked or 1 c. raw vegetables=2 grams; 1 slice bread or ½ c. potatoes=3 grams; ½-1c. cereal=3-6 grams of protein.

Soy is the one exception! Even though soy is plant based, it does contain all of the essential amino acids and is considered a complete protein! Go ahead and include tofu, tempeh, soymilk, soy nuts, soybeans, soy cheese, and other soy foods in your diet on a regular basis. In general, 1 c. soy milk=8 grams and 4oz. or ½ c. tofu=7 grams of protein. For more information on soy foods, go to [www.soyfoods.com](http://www.soyfoods.com) to download a Soyfoods Guide for free!

Of course protein supplements count toward your total protein intake as well. There are so many different protein supplements on the market that it's hard to keep track of them all! Keep in mind, however, that protein supplements should only supplement your food intake. In other words, focus on food sources of protein first, and then perhaps add 1 supplement a day. Always be mindful of how many calories and grams of sugar are in your protein supplements. Also keep in mind that protein bars may be more filling and satisfying than a protein shake, because liquids go down quickly and easily.