

## **GENERAL INFORMATION FOR GASTRIC BYPASS SURGERY**

The first few months after surgery can be a challenge, and every patient will have a different experience. You may have little or no appetite for several months, or you may be hungry right away. What is important to remember is that you are on a year-long journey to change your eating habits for the better --- and to get healthier in the process. It is essential to take in 2 quarts (64 ounces) of fluids, a variety of nutritious foods, and your vitamins daily.

### **FOOD TOLERANCE**

- Some foods may not be as well tolerated following gastric bypass surgery as they were before.
- Stick with the foods you do well with for the first month, and add foods slowly as you feel comfortable.
- Through trial and error, you will be able to tolerate a wider variety of foods. Remember, time is often your best ally --- if a new food causes discomfort, wait one or two weeks and try it again.
- Foods that may be difficult to tolerate include:
  - Tough and high fat meats --- the gristle and the saturated fats in beef are difficult to digest
  - Membranes of orange and grapefruit sections
  - Cores, seeds, and skins of fruits and vegetables
  - “Stringy” vegetables, such as celery or spaghetti squash
  - Fried foods
  - Nuts and seeds
  - Soft breads with “doughy” textures, such as pizza crust --- dry toast, crackers, tortillas and other breads with less moisture are better tolerated

### **MEAL AND BEVERAGE SCHEDULE**

- You need to plan to **eat three meals per day**
- Include a protein-rich food at each meal (a list is below)
- Try to include 2-3 different food groups at each meal. For example: peanut butter, cracker, and applesauce.
- Eat solid foods ***only*** at mealtimes.
- Take small bites. Using baby spoons and cocktail forks may be helpful reminders.
- Progress the volume of foods at mealtimes slowly. These general guidelines are helpful, and are explained in more detail later on in this booklet. However, stop eating as soon as you sense a feeling of fullness. Do not force yourself to finish the full amount.

|                            |                                   |
|----------------------------|-----------------------------------|
| First two weeks            | 6 teaspoons (2 tablespoons)       |
| Three to six weeks         | 7-8 teaspoons                     |
| Two months after surgery   | 9 teaspoons (3 tablespoons)       |
| Three months after surgery | 12 teaspoons ( $\frac{1}{4}$ cup) |
| Six months after surgery   | $\frac{1}{2}$ cup (8 tablespoons) |
| Nine months after surgery  | $\frac{3}{4}$ cup                 |
| One year after surgery     | 1 cup                             |

**EAT SLOWLY, ALLOWING 30 MINUTES TO EAT A MEAL. CHEW FOODS THOROUGHLY.**

- Eating too quickly may lead to vomiting.
- Eating portions larger than recommended may cause the stomach pouch to stretch too quickly.
- If food is not chewed thoroughly, it may block the opening of the pouch and cause discomfort.
- Count the number of times you chew each bite, especially with meats.
- Make an “Eat Slowly” sign and place it on the table in front of you as a reminder.
- Explain to family members about eating slowly, so that they will not force you to eat more quickly.
- Pay attention to taste. Savor each bite, noting its flavor, texture, and consistency.
- Put your utensils down after each bite.

**SIP FLUIDS CONSTANTLY BETWEEN MEALS.**

- Fluid intake should be 64 ounces or more per day.
- Stop drinking fluids 30 minutes before meals and wait 30-45 minutes after meals before drinking fluids again.
- Sip beverages slowly, approximately 8 fluid ounces (1 cup) every hour, except at mealtimes.
- Limit juice (diluted to 50%) and milk to 1 cup **each** per day.

**BOWEL HEALTH**

- You should have at least one bowel movement every other day.
- NutraFlora® may be used to help promote healthy bowel function. Talk to your dietician about this product.
- Adequate fluid intake is essential to proper bowel function.

**EXERCISE**

- Continue to build upon your exercise routine. Your exercise tolerance will increase as your weight decreases, so make sure your physical activity gradually increases.
- Shortly after surgery, daily, small amounts of walking are a great way to get exercise.
- Increase the duration and intensity of your exercise regimen as healing progresses.
- Check with your physician and/or exercise physiologist with any questions or concerns about types of exercise that are permitted. In general, however, after the first 6 weeks pass following surgery, you should be limited only by your tolerance, which will once again gradually improve.

## **BEVERAGES**

Water is the preferred choice of fluid for your body. However, the following beverages are acceptable alternatives (you may wish to dilute these with water to lessen calorie intake and excessive sweetness):

- Crystal Light
- Low sodium V-8
- Decaffeinated coffee or teas
- Sugar-free Tang
- Sugar-free Kool-Aid
- Tropicana Twister Light
- Ocean Spray Lighter Lifestyle juices
- Diet Snapple
- Diet V-8 Splash
- Sugar-free hot cocoa or sugar-free Nestlé's Quick
- Sugar-free fruit water
- Herbal teas
- Glacier fruit-flavored water
- Propel fitness water

## **SUGAR**

- Sugar may not be well tolerated, and should be kept to under 10 grams per meal. Excessive sugar may cause dumping syndrome, and obviously is a source of excess calories.
- Use sugar-free yogurts, puddings, and gelatins.
- Dairy products and fruits will contain natural sugars, which are fine as long as you stay within your daily limit of sugar intake (read the label!).
- Minimize intake of sugar-free candy and gum. These often contain sugar alcohols and may cause GI upset, such as cramping and diarrhea.

## **PROTEIN FOODS**

After surgery, protein is necessary for proper healing and for the maintenance of muscle tissue during weight loss. Initially, foods high in protein should make up on-half of each meal. The following is a list of high protein foods:

### **HIGH PROTEIN FOODS**

Blended nonfat cottage cheese  
Instant breakfast (no sugar added) with skim milk  
Vegetarian Chili  
Legumes (black, pinto, navy, etc.)  
Baby food meat (plain)  
Tuna (canned, water packed)  
Beef, poultry, pork or fish  
Salmon  
Egg  
Low-fat nor non-fat cheese  
Pea or Lentil soup  
Sugar-free pudding (made with skim milk)  
Tofu  
Skim milk, non-fat dry or Lactaid milk  
Light yogurt (sugar free)  
Creamy peanut butter  
Low-fat/non-fat ricotta cheese  
Soy milk  
Spam spread light  
Crab meat

## **GASTRIC BYPASS SURGERY DIET**

### FIRST TWO WEEKS AFTER SURGERY

#### WHILE IN THE HOSPITAL

- In addition to water the first source of nutrition will be clear liquids, such as broth, clear juices, and gelatin
- The diet will advance to a blended, soft (pureed) diet. This includes pureed foods, soft cooked eggs, cottage cheese, cooked cereals, and puddings.
- Tray portions will be larger than the recommended amounts. Remember to eat no more than six teaspoons (1 fluid ounce measure) at each meal.

#### FLUIDS IN THE HOSPITAL

*Always remember to allow 30 minutes before and after meals before drinking liquids. This is an important guideline while in the hospital and when you go home.*

- When allowed, you will begin fluids by drinking 1 fluid ounce per hour (you will still be receiving IV fluids).
- As tolerated over the next several hours, this will increase to 2 ounces per hour (1 ounce every 30 minutes).
- When the IV fluid rate is decreased, you should be taking in 3 ounces per hour (1 ounce every 20 minutes).
- By the last day or so in the hospital, you will be encouraged to gradually increase water intake, with a goal of reaching **64 ounces per day** (8 ounces per hour during the day). This amount of water intake is essential, and will prevent you from becoming dehydrated, as it is hard to “catch up” with water intake with a very small stomach pouch.

#### AFTER GOING HOME

For the first two weeks after surgery, you will be on a full liquid/pureed food diet. This includes foods that are liquid, strained, or pureed. Meals should be timed; allow yourself a full 30 minutes to eat each meal.

- Continue to eat pureed meats, vegetables, and fruits. This includes mashed potatoes, applesauce, moist refried beans, and mashed bananas.
- Commercially prepared foods (“level 3”) may be used as well. Just be certain that no sugar has been added.
- Gradually add plain yogurt, cottage cheese, cheese or egg dishes, and liverwurst.
- Sip on fluids (preferably water) throughout the day, stopping 30 minutes before a meal and starting again 30 minutes after a meal.
- By your second day at home, you should be drinking 8 ounces (1 cup) of liquid every hour between meal times.
- **Sixty-four ounces of fluid will be your goal each day.**
- Limit your food intake to 6 teaspoons per meal. Overeating will result in severe discomfort and/or vomiting.
- Half of the meal (3 tsp or ½ ounce) should consist of a protein source (refer to list provided in general information).

**Items you may wish to include in your shopping list for the first two weeks after surgery:**

- Any sugar-free, non-carbonated beverage, such as Diet Snapple, water, coffee, tea, Crystal Lite, sugar-free cocoa, sugar-free Tang, Fruit Water, etc.
- Diet Jell-O
- Broth, miso soup (500mg or less of sodium per serving)
- V-8 or tomato juice (8 ounces maximum daily)
- Unsweetened fruit juice (limit to 4 ounces daily, diluted half water/half juice)
- Sugar-free popsicles (limit two per day)
- Light, sugar-free yogurt (sugar should be under 16 grams for an 8 ounce container, 120 calories or less)
- Non-fat cream soups
- Sugar-free oatmeal, cream of wheat

**SAMPLE MENU IDEAS --- WEEKS 3 THROUGH 5**

**Breakfast (6 teaspoons)**

- |                       |           |                                  |
|-----------------------|-----------|----------------------------------|
| 2 tsp. Cream of Wheat |           | 2 tsp. Oatmeal                   |
| 2 tsp. Scrambled egg  | <b>OR</b> | 2 tsp. Milk or sugar-free yogurt |
| 2 tsp. Pureed peaches |           | 2 tsp. Unsweetened applesauce    |

**Lunch (6 teaspoons)**

- |                       |           |                      |
|-----------------------|-----------|----------------------|
| 4 tsp. Cottage cheese |           | 2 tsp. Pureed turkey |
| 2 tsp. Mashed banana  | <b>OR</b> | 2 tsp. Pureed pears  |
|                       |           | 2 tsp. Pureed peas   |

**Dinner (6 teaspoons)**

- |                    |           |                               |
|--------------------|-----------|-------------------------------|
| 2 tsp. Pureed beef |           | 3 tsp. Mashed potatoes with ¼ |
| 2 tsp. Pureed peas | <b>OR</b> | slice American cheese, melted |
| 2 tsp. Custard     |           | 2 tsp. Pureed carrots         |

## **GASTRIC BYPASS SURGERY DIET**

### WEEKS THREE THROUGH FIVE

At this time you will be consuming a soft and pureed diet. You can now increase meals by 1 teaspoon every 7-10 days (check with your dietician for help with this). Meals should be timed; allow yourself a full 30 minutes to eat each meal, and do not drink for 30 minutes prior to and following each meal.

#### **HALF OF THE MEAL NEEDS TO BE A PROTEIN FOOD, AND THE OTHER HALF CAN CONSIST OF VEGETABLE, STARCH, OR FRUIT.**

- Add soft, cooked, fresh, frozen, or canned vegetables, such as carrots, peas, beets, and baked potatoes.
- Use soft, frozen, or canned fruits, packed in water or light syrup.
- Remove the skins and peels from fruits and vegetables, or use canned fruits and vegetables.
- Add smooth peanut butter, fish, macaroni and cheese, pastas, rice, corn and flour tortillas, crackers, and plain toasted bread.
- Cook vegetables, pasta, and rice until they are soft and mushy.
- Eat only the solid part in soups. Bean soups are the best choice, such as navy, black bean, lentil, pinto, and split pea soups. Homemade soups full of chicken and vegetables can be blended to a split pea consistency.
- Remember to keep your fluid intake to at least 8 ounces per hour, for a total of at least 64 ounces per day.

#### **FOOD PREPARATION TIPS**

- To blend or puree foods, put the item in a mini food processor and use the pulse button to grind it to a fine consistency.
- Add about a teaspoon at a time of water, broth, fat-free gravy, light mayonnaise, or milk as needed to create a paste-like or applesauce-like consistency. You may have to experiment a few times to create the consistency you prefer.
- Measure what you need for a meal, and freeze the rest.
- Fruits and vegetables have a high water content, so be careful about adding fluids. A few drops of lemon juice will help prevent browning of fruits.

#### **BY THE FOURTH WEEK**

- You may begin adding moist, tender chicken and turkey, shredded after cooking, or very thinly sliced.
- Begin adding raw fruits and vegetables, avoiding tough or fibrous ones.
- Add cooked ground meats such as veal, pork, and beef.

## MEALS AND BEVERAGES

- Use a baby spoon or cocktail fork to help you take small enough bites.
- Use a saucer or dessert plate for your meals instead of a big plate. Sip on fluid all day; you should be taking in 64 ounces per day. It is still necessary to stop drinking 30 minutes before a meal and start again no sooner than 30 minutes after a meal.

## MEASURING

- $\frac{1}{4}$  slice sandwich bread = 2 teaspoons
- $\frac{1}{4}$  6" tortilla = 3 teaspoons
- 1 saltine = 2 teaspoons
- $\frac{1}{2}$  slice American cheese = 4 teaspoons
- 1 tablespoon = 3 teaspoons
- 2 tablespoons = 1 fluid ounce

## GROCERY LIST FOR WEEKS 3-5

- Cereal, artificially sweetened (oatmeal, cream of wheat, grits, cream of rice, wheateana)
- Eggs (fresh or egg substitute)
- Fruit (peeled, seedless fresh fruit, canned fruit in its own juice, baby food fruit with no added sugar)
- 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 homemade mashed potatoes
- Canned soft vegetables (low sodium, no seeds)
- Liver pate or salmon mousse
- Hummus
- Tofu
- Fat-free refried beans (may use with baked tortilla chips)
- Navy, split-pea, black bean, or lentil soup (sodium should be less than 500mg per can)
- Low-fat cottage cheese
- Low-fat or non-fat cheeses
- 90-120 calorie sugar-free yogurt (yogurt should have 16 gram or less sugar per 8 ounce serving)
- Water-packed canned chicken, tuna, or salmon
- Low-fat mayonnaise
- Low-fat tub margarine
- Sugar-free Jell-O
- Sugar-free popsicles
- Low-fat macaroni and cheese
- Skim or 1% milk, Lactaid milk, low-fat buttermilk, soy milk

## SAMPLE MENU IDEAS --- WEEKS 3 THROUGH 5

### EXAMPLES OF MEALS THAT WOULD BE APPROPRIATE AT THIS TIME

- 1 tablespoon of small curd, low-fat cottage cheese  
1 tablespoon of unsweetened applesauce or baby food fruit
  
- 1 tablespoon of smooth peanut butter  
1-2 saltine crackers
  
- 1 tablespoon of any type of hot cereal, unsweetened  
½ scrambled egg (real or Egg Beaters)  
1 teaspoon of margarine
  
- 1 tablespoon of canned tuna mixed with low-fat mayonnaise  
1 saltine  
1 tablespoon of blended fruit
  
- 1 tablespoon of pureed meat  
1 tablespoon of pureed vegetables or baby food vegetables  
½ teaspoon of light margarine
  
- 1 egg omelet with low-fat cheese  
1 tablespoon of pureed fruit or vegetable
  
- 1/8 cup of bean soup (pinto, navy, black beans, split pea); beans should be mashed  
1 saltine
  
- 1 tablespoon of baby food meat  
1 tablespoon of baby food vegetable
  
- 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 American cheese  
¼ slice toast  
½ thinly sliced banana
  
- ¼ slice dry toast  
2 teaspoons peanut butter blended with 2 teaspoons applesauce
  
- 2 teaspoons tuna salad (with low-fat mayonnaise or plain yogurt)  
2 saltine crackers  
1 slice canned peaches, in water or light syrup

## **SAMPLE MENU IDEAS --- WEEKS 3 THROUGH 5, continued**

- ¼ of a 6" flour tortilla  
3 teaspoons refried beans  
1 teaspoon shredded cheese
  
- 4 teaspoons macaroni and cheese  
2 teaspoons cooked, diced carrots
  
- 4 teaspoons tuna noodle casserole  
2 teaspoons cooked green beans

### **AVOID THE FOLLOWING FOODS FOR THE FIRST 5 WEEKS AFTER SURGERY**

- Nuts, seeds, popcorn, citrus fruits and vegetables
- Raw vegetables, bread, fibrous crackers
- Food with a high fat content (which you should continue to avoid even after the first 5 weeks)

## **GASTRIC BYPASS SURGERY DIET**

### 6 WEEKS THROUGH SIX MONTHS

Solid food is now an acceptable choice for you, but be sure you are still measuring and weighing everything (see the kitchen conversion table for help with this). Meals should be timed; allow yourself a full 30 minutes to eat each meal, and do not drink for 30 minutes prior to and following each meal.

#### **MEAL PROGRESSION**

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

#### **MEALS AND BEVERAGES**

- Eat until you are comfortably satisfied, not stuffed. Continually overloading the stomach may increase the stretching of your pouch to a point where it will be useless as a weight loss tool.
- When eating, cut your food to the size of your little fingernail and chew each bite to mush.
- One-third of each meal should consist of a high protein source; the other 2/3 of your meal should provide a variety of nutrients.
- Do not sit down with your family. Taking small bites and putting your fork down in between bites should help you make your meal last as long as theirs does.
- **DO NOT** be tempted to cut your meals down to 1 a day to accelerate weight loss. Your body needs the steady flow of nutrients throughout the day to avoid malnutrition and to maintain a higher metabolism.
- Continue to avoid liquids for ½ hour before and after meals, but remember to make sure you continue to get in 64 ounces per day.
- One small treat every other day is okay (i.e., sugar-free and fat-free pudding, ice cream, or frozen yogurt).

## SAMPLE MENU IDEAS --- 6 WEEKS THROUGH 6 MONTHS

- ◆ ½ slice toast with 1 Tbsp. shredded, melted cheese  
2 mandarin orange sections
- ◆ 2" pancake  
3 tsp. ricotta cheese  
2 tsp. applesauce
- ◆ ¼ soft chicken salad sandwich  
2-3 tsp. tomato soup
- ◆ 3-4 tsp. cooked pasta  
3 tsp. ricotta cheese  
2 tsp spaghetti sauce
- ◆ 3 tsp. poached fish  
2-3 tsp. baked potato (without skin)  
2-3 tsp. French green beans
- ◆ ½ slice toast with 2 tsp. peanut butter & 1 tsp. low sugar jelly  
1 peach slice
- ◆ 1/3 of a soft shell chicken taco
- ◆ 3 tsp. ground roast beef  
2-3 tsp. peas  
1 thin melon slice
- ◆ 3 tsp. ground ham  
4-6 tsp. split pea soup
- ◆ 3-4 tsp. spaghetti with meat sauce  
¼ cup shredded lettuce

| <b>KITCHEN CONVERSION TABLES</b>                   |                                |                                 |                       |
|----------------------------------------------------|--------------------------------|---------------------------------|-----------------------|
| <b>Liquid or Volume Measurements (approximate)</b> |                                |                                 |                       |
| 1 teaspoon                                         |                                | 1/3 tablespoon                  | 5 ml                  |
| 1 tablespoon                                       | 1/2 fluid ounce                | 3 teaspoons                     | 15 ml                 |
| 2 tablespoons                                      | 1 fluid ounce                  | 1/8 cup (6 teaspoons)           | 30 ml                 |
| 1/4 cup                                            | 2 fluid ounces                 | 4 tablespoons                   | 59 ml                 |
| 1/3 cup                                            | 2 2/3 fluid ounces             | 5 tablespoons & 1<br>teaspoon   | 79 ml                 |
| 1/2 cup                                            | 4 fluid ounces                 | 8 tablespoons                   | 118 ml                |
| 2/3 cup                                            | 5 1/3 fluid ounces             | 10 tablespoons & 2<br>teaspoons | 158 ml                |
| 3/4 cup                                            | 6 fluid ounces                 | 12 tablespoons                  | 177 ml                |
| 7/8 cup                                            | 7 fluid ounces                 | 14 tablespoons                  | 207 ml                |
| 1 cup                                              | 8 fluid ounces (1/2 pint)      | 16 tablespoons                  | 237 ml                |
| 2 cups                                             | 16 fluid ounces (1 pint)       | 32 tablespoons                  | 473 ml                |
| 4 cups                                             | 32 fluid ounces                | 1 quart                         | 946 ml                |
| 1 pint                                             | 16 fluid ounces                | 32 tablespoons                  | 473 ml                |
| 2 pints                                            | 32 fluid ounces                | 1 quart                         | 946 ml                |
| 8 pints                                            | 1 gallon (128 fluid<br>ounces) | 4 quarts                        | 3785 ml (3.78 liters) |
| 4 quarts                                           | 1 gallon (128 fluid<br>ounces) | 1 gallon                        | 3785 ml (3.78 liters) |
| 1 liter                                            | 1.057 quarts                   |                                 | 1000 ml               |
| 128 fluid ounces                                   | 1 gallon                       | 4 quarts                        | 3785 ml (3.78 liters) |

| <b>KITCHEN CONVERSION TABLES</b>                |                          |            |
|-------------------------------------------------|--------------------------|------------|
| <b>Dry or Weight Measurements (approximate)</b> |                          |            |
| 1 ounce                                         |                          | 30 grams   |
| 2 ounces                                        |                          | 55 grams   |
| 3 ounces                                        |                          | 85 grams   |
| 4 ounces                                        | 1/4 pound                | 125 grams  |
| 8 ounces                                        | 1/2 pound                | 240 grams  |
| 12 ounces                                       | 3/4 pound                | 375 grams  |
| 16 ounces                                       | 1 pound                  | 454 grams  |
| 32 ounces                                       | 2 pounds                 | 907 grams  |
| 1 kilogram                                      | 2.2 pounds (35.2 ounces) | 1000 grams |

*Once you have these measurements “down,” it is okay to “eyeball” portion sizes, but it is a good idea to measure meals very frequently to make sure you are still being accurate!*

## **GASTRIC BYPASS SURGERY DIET**

### SIX MONTHS AND BEYOND

#### **MEAL PROGRESSION**

- Gradually increase meals by 1 teaspoon every 1-1 ½ weeks
- At six months after surgery, meals can be as large as ½ cup
- At nine months after surgery, meals will be up to ¾ cup
- One year following surgery, you will have reached your final goal of 1 cup of food per meal; this will remain the size of your meals for the remainder of your life
- “Eyeballing” meal sizes is a bad idea until you have reached the one year mark; continue to measure your meals and time them. This repetition is very helpful in making the changes in your eating habits become second nature.
- After one year, remember that you can still utilize the helpfulness of measuring and timing meals; it may be helpful to do this in reverse --- put your food on a plate and *then* measure it to ensure you are “eyeballing” portions appropriately, and sit with your back to a clock to ensure you are still eating meals in about 30 minutes.

#### **MEALS AND BEVERAGES**

- Continue to only eat until you are comfortably satisfied, not stuffed.
- Only eat at mealtimes. Be aware of emotional eating, and do not snack.
- Continue to stop drinking for ½ 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 you to curb your appetite between meals if you find you are getting hungry.

**HINTS TO HELP YOU ACHIEVE LONG-TERM SUCCESS:**

- ❖ **Exercise, exercise, exercise!** You must be active in order to maintain long-term weight loss. 45-60 minutes of aerobic exercise 5-6 times per week and strength training 2-3 times per week is essential.
- ❖ Weigh yourself only once a week. Weighing yourself too often can lead to frustration due to weight fluctuations. Recognize that you are still losing inches, even if you are not seeing changes on the scale.
- ❖ Eat slowly and stop when you feel comfortably satisfied, regardless of how much of your meal you have left. Remember the meal sizes are **maximums**, not minimums.
- ❖ Experiment with different foods, something that you may not have been well tolerated before may become better tolerated with time. Your tastes are changing – for the better!
- ❖ 50% of your food choices should be vegetables and fruits. Try to eat 2 vegetables at lunch and dinner.
- ❖ Take your vitamin supplements **daily!!** This needs to be a life-long practice.
- ❖ Eat a variety of nutrient-dense foods to maximize the benefits of the small amount of food you take in.
- ❖ Take time to honor yourself and your accomplishments!
- ❖ Most of all, ENJOY your new life, and take full advantage of the second chance you have given yourself!

## VITAMINS AND MINERAL SUPPLEMENTS

Because of the alteration in anatomy that occurs with gastric bypass surgery, and because of your significantly altered diet, vitamins and mineral supplements will be required for the rest of your life. The following suggestions can be purchased at most drug or grocery stores. Your dietician will also review these required supplements with you. **Do not use time-released or enteric-coated vitamins** --- your stomach pouch cannot break them down for proper absorption.

### MULTIVITAMIN

- Take a multivitamin capsule twice per day (one in the morning and one in the evening) for the first year following surgery.
- In the beginning, you may wish to take a children's chewable vitamin, such as:
  - Centrum, Jr.
  - Flintstone's
  - or a competitor containing the same ingredients
- Make sure your multivitamin contains iron
- After the first year, a multivitamin providing 100% of the recommended dietary allowance of essential vitamins and minerals, such as:
  - Centrum A-Z
  - One-A-Day with iron
  - or a competitor containing the same ingredients

### CALCIUM

The body can absorb 500-600mg of calcium every 4 hours. Taking 500mg of calcium two to three times a day will provide the recommended daily amount of 1000-1500mg. Calcium and iron bind together, so make sure you take your multivitamin at a separate time from your calcium. When purchasing calcium, be sure it is in an elemental form. There are two types of calcium available for purchase:

- **Calcium Citrate** is recommended due to its high absorption rate. It may be taken with or without a meal. Examples include:
  - Citracal
  - Cal-Citrate
    - If you take a prescription antacid, you should be taking elemental calcium citrate for optimal absorption.
- **Calcium Carbonate** is not as well absorbed as calcium citrate, and must be taken with a meal since it needs stomach acid to aid with absorption. Calcium carbonate may be more constipating, as well. Examples include:
  - Caltrate
  - Viactiv
  - Tums

### **VITAMIN B12**

Vitamin B12 is very important to the body's ability to generate new red blood cells and nerve sheaths. It is absorbed with the aid of a protein in the stomach, which binds to it to allow absorption downstream in the last part of the small intestine. The stomach pouch formed with gastric bypass surgery is small enough that it cannot make enough of this protein to bind Vitamin B12 found in many foods, so supplemental B12 is critical. This can be taken as:

- Five hundred micrograms (500mcg) of Vitamin B12 taken sublingually (under the tongue) once daily. You may need to ask your pharmacist if you are having a difficult time finding the sublingual form.
- A monthly injection of 1000 micrograms of Vitamin B12
- A nasal spray form (Nascobal) is available by prescription. It is administered as one spray containing 500mcg of Vitamin B12 in one nostril once per week.
- *Please be aware that a Vitamin B12 supplement **pill** cannot take the place of sublingual B12!*

### **IRON**

Women who are menstruating have enough iron losses that supplementation beyond the amount found in a multivitamin is generally needed. This may also be the case for other gastric bypass patients, depending on the results of lab studies. Check with your dietician or doctor before taking supplemental iron.

- Iron should be taken with a vitamin C source, such as diluted orange juice (consisting of ½ juice and ½ water), V-8 juice, or sugar-free Tang
- Do not take iron with calcium supplement, coffee, tea, high sugar foods, or milk, since they decrease iron absorption. Wait at least 3 hours to drink coffee or tea after taking iron.
- Take 325mg of iron daily if needed