

## Impact of Biliopancreatic Diversion with Duodenal Switch on Nutrition

**Biliopancreatic Diversion with Duodenal Switch** is a surgical [weight-loss](#) procedure in which the combines a sleeve gastrectomy with a malabsorptive bypass.

### Very Small Pouch

EAT SLOW

CHEW WELL - about 15 -20 times per bite.  
Stop eating when you feel full.

After surgery, the stomach can only hold 4-6 oz.  
You will probably feel full after 2-3 tablespoons of food.

Small intestines switched to allow additional weight loss.

### Diet and Behavioral Changes

Do not eat and drink at the same time.  
Wait about 30 minutes between eating and drinking  
Eat and drink slowly –

- 10 – 15 minutes to eat 1 oz.
- 10 – 15 minutes to drink ½ cup

Small portions – frequently

#### Bariatric Surgery Diet Stages:

- 1) Clear liquid – Post Op Day
- 2) Full liquid – about days 1-10; less than ½ cup per feeding
- 3) Pureed- about week 2 & 3 (¼ cup-1/3 cup per feeding)
- 3) Soft diet –about weeks 4 & 5 (1/3 cup –1/2 cup/feeding)
- 5) Low-fat, “no added sugar”, regular consistency – about week 6 (1/2 cup –3/4 cup/feeding)

Chew well

No alcohol

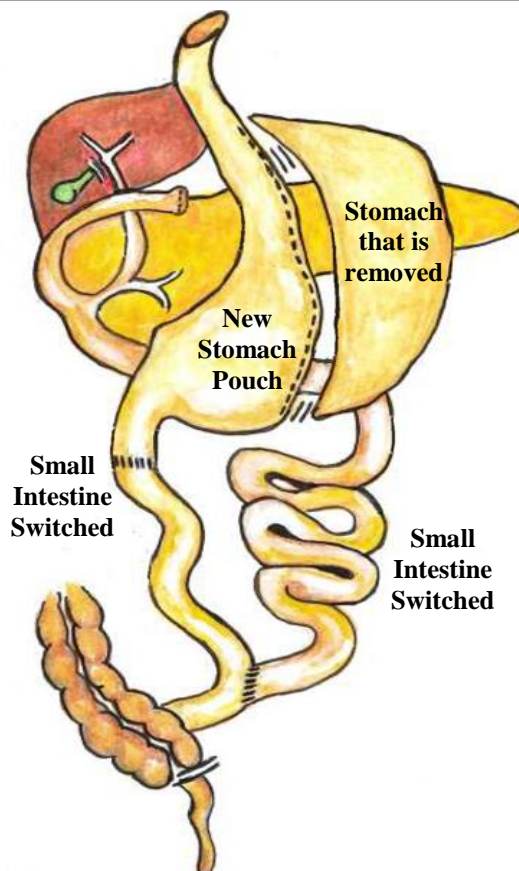
No sugar

Low-fat

Nutrient rich

80-120 grams of protein / day

Adequate fluid – 8 cups /day



### Mandatory - Supplements Daily

#### Multivitamin with Iron x2

- These should include a total of 400 mcg Folate, 18 mg Iron, 16-22 mg Zinc, **2 mg Copper**

**Calcium citrate with D** - 1800 -2400 mg – divide into 600 mg  
3-4 times/day

**Vitamin B12** – 500 mcg

**Additional Thiamine (B1)** - to achieve a **total of 12 mg** and if at risk possibly need a total of 50-100 mg

**Additional Folate**- for women of child bearing age to achieve a **total of 800-1000 mcg** Folate

**Iron** – menstruating women may need additional iron 27-42 mg of elemental iron possible - for a total of 45-60 mg of elemental iron

Separate calcium and iron by at least 2 hours

**Additional Vitamin A, D, E, K** to achieve a **total of**

- 10,000 IU Vitamin A
- **3,000 IU of Vitamin D**
- 15mg Vitamin
- **300 mcg of Vitamin K**

Gas

After you have had gastric surgery, your physician will progress you to a full liquid. The full liquid diet is to be used for approximately the first week after surgery. Your physician will tell when to progress to the pureed diet.

| Food Group             | Allowed Foods   | Foods to Avoid   | Comments   |
|------------------------|---|--|--|
| Milk and milk products | Fat-free milk,<br>Soy milk without added sugar,<br>Sugar-free pudding,<br>Carnation Breakfast Essentials Light Start,<br>Strained cream soup<br>Protein drink without added sugar | High fat milk products – 2% milk<br>Whole milk<br>Milkshakes<br>Regular pudding<br>All cheeses | The milk group provides protein<br><br>Fairlife milk is high protein<br><br>Almond milk is low protein |
| Juice                  | 100% juice (cut with water by 50%)  | Juice with added sugar<br>Kool-Aid with sugar<br>Lemonade with sugar<br>Punch<br>Fruit drink   |  |
| Grains                 | Refined cooked cereal such as cream of wheat or cream of rice   | All other cereal and breads  |  |
| Jell-O/Pudding         | Sugar-free Jell-O<br>Sugar-free pudding   | All other sweets and desserts  |  |
| Beverages              | Protein drink<br>Water<br>Crystal Light<br>Sugar-free Kool-Aid<br>Tea<br>Coffee<br>V-8 Diet Splash<br>Sugar-free popsicles<br>Broth   | Carbonated beverages<br>Sugar sweetened beverages  | Half of your beverages should contain protein.   |

## **Bariatric Stage 2 Diet:**

### **Sample Full Liquid Menu for after Gastric Surgery**

This is a sample menu and may be too much food for you. Stop eating as soon as you feel full.

**Breakfast** - Cooked refined cereal – 2 – 4 Tablespoons

**30 minutes after breakfast** – 8 ounces high protein drink (sip ¼ cup every 15 minutes)

**Two hours after breakfast** – Sugar-free pudding – 2 – 4 Tablespoons

**Lunch** - Strained soup – 4 – 6 Tablespoons

**30 minutes after lunch** – 8 ounces water (sip ¼ cup every 15 minutes)

**2 hours after lunch** – 8 ounces high protein drink (sip ¼ cup every 15 minutes)

**3 hours after lunch** – 8 ounces skim milk or soy milk without added sugar (sip ¼ cup every 15 minutes)

**Dinner** - Strained cream soup – 4 – 6 Tablespoons

**30 minutes after dinner** – 8 ounces high protein drink (sip ¼ cup every 15 minutes)

**Two hours after dinner** – 8 ounces skim milk (sip ¼ cup every 15 minutes)

**Three hours after dinner** – 8 ounces water (sip ¼ cup every 15 minutes)

**Four hours after dinner** – 8 ounces water (sip ¼ cup every 15 minutes)

(Provides 60 grams of protein if a 13 gram protein drink is used **3 times per day**)

(Provides 100 grams of protein if a 28 gram protein drink is used **3 times per day**)

### **General tips**

- Do not eat and drink at the same time. Wait 30 minutes before and 30 minutes after eating, to drink.
- Cut food into small pieces.
- Chew food thoroughly (15-20 times a bite).
- Put silverware down between bites.
- Stop eating when you first feel full.
- Take 30 minutes to eat each meal.
- Eat protein foods first, then vegetable, fruit, or starchy food.
- Do not eat or drink foods made with sugar.
- Avoid high fat and greasy food.
- Take your daily vitamins and mineral supplements
- Your protein goal: **60-80grams per day**

### Bariatric Surgery Diet 3: Pureed Nutrition Therapy for after Gastric Surgery

**Instructions:** During this diet stage, everything must be blended to the consistency of applesauce. You may use commercially prepared, Stage 1 and Stage 2, baby food. The foods you choose should not contain concentrated sweets or sugar. Follow this until the doctor tells you to progress to a soft diet, usually around 4 weeks after surgery.

| Food Group              | Allowed Foods  | Foods to Avoid   | Comments   |
|-------------------------|--|--|--|
| Milk and milk products  | Fat-free milk,<br>Soy milk without added sugar,<br>Carnation Breakfast Essentials<br>Light Start,<br>Fat-free milk mixed with<br>Sugar-free Nesquick,<br>Pureed low-fat cottage cheese,<br>Low-fat blended style yogurt without fruit, nuts, seeds or added sugar,<br>Sugar-free pudding | Whole and 2% milk,<br>Flavored milk<br>containing sugar like<br>chocolate/strawberry | The milk group provides protein<br><br>1 cup milk = 8 grams protein<br>Fairlife milk is high protein<br>Almond milk is low protein |
| Fruit                   | Unsweetened applesauce,<br>Pureed canned fruit <u>without added sugar</u>  | All others   |  |
| Vegetable               | Pureed soft cooked vegetables,<br>Mashed potatoes  | All others   |  |
| Meat<br>High in protein | Pureed lean poultry, meat, or fish,<br>Refried beans   | All other varieties,<br>High fat products  | The meat group<br>1 ounce = about 7 grams protein  |
| Grains/Starch           | Refined cooked cereal – such as cream of wheat or cream rice   | Pasta, bread, rice,<br>and all other starches  |  |
| Beverages               | Water<br>Crystal Light<br>Sugar-free Kool-Aid<br>Tea, Coffee<br>V-8 Diet Splash<br>Broth or Bouillon<br>Protein Drink  | Carbonated beverages,<br>Sugar sweetened beverages                                   | Half of your beverages should contain protein.   |
| Other                   | Sugar-free Jell-O, Sugar-free popsicle   | All others   | All items should be Sugar-free   |

## Sample Pureed Menu for after Gastric Surgery

This is a sample menu and may be too much food for you. Stop eating as soon as you feel full.

| Volume of food per meal          | 1/4 cup to 1/3 cup (4 to 6 tablespoons)  |
|----------------------------------|--|
| <b>Breakfast</b>                 | Refined cooked cereal – use fat-free milk to thin.   |
| <b>Liquid Protein Supplement</b> | 8 ounces protein drink (provides 13-28 grams protein depending on recipe or product used)  |
| <b>Morning Snack</b>             | 4 – 6 tablespoons unsweetened pureed fruit   |
| <b>Morning Liquid</b>            | 8 ounces water   |
| <b>Lunch</b>                     | <b><u>Total meal should be 1/4 cup to 1/3 cup:</u></b><br>Pureed turkey (1 oz. = 2 tablespoons and provides approx. 8 grams of protein)<br>Mashed potato<br>Pureed green beans |
| <b>Liquid Protein Supplement</b> | 8 ounces protein drink (provides 13-28 grams protein depending on recipe or product used)  |
| <b>Afternoon Snack</b>           | 4 – 6 tablespoons sugar-free, low-fat pudding (provides approx. 2 – 3 grams protein)   |
| <b>Afternoon Liquid</b>          | 8 ounces Crystal Light   |
| <b>Dinner</b>                    | <b><u>Total meal should be 1/4 cup to 1/3 cup:</u></b><br>Pureed beef (1 oz. = 2 tablespoons and provides approx. 9 grams of protein)<br>Mashed potatoes<br>Pureed carrots     |
| <b>Liquid Protein Supplement</b> | 8 ounces protein drink (provides 13-28 grams protein depending on recipe or product used)  |
| <b>Evening Snack</b>             | 4 – 6 tablespoons unsweetened applesauce   |
| <b>Evening Liquid</b>            | 8 ounces tea (unsweetened)   |

This menu provides approximately 100 grams protein if a 28 gram protein drink is used **3 times** per day.

### General tips

- Do not eat and drink at the same time. Wait 30 minutes before and 30 minutes after eating, to drink.
- Cut food into small pieces. Chew food thoroughly (15 – 20 times a bite).
- Put silverware down between bites.
- Stop eating when you first feel full.
- Take 30 minutes to eat each meal.
- Eat protein foods first, then vegetable, fruit, or starchy food.
- Do not eat or drink foods made with sugar.
- Avoid high fat and greasy food.
- If lactose intolerant use soy milk or lactose-free milk
- Take your daily vitamins and mineral supplements.
- Your protein goal: **80-90 grams per day**

## Bariatric Surgery Diet 4

### Soft Nutrition Therapy for after Gastric Surgery

**Instructions:** When you have been progressed to the soft diet, food no longer needs to be pureed, but it is important that you **chew foods thoroughly**. You cannot over-chew your food. (Chew each bite 15-20 times) **Everything should be tender enough to cut with a fork.**

| Food Group                  | Allowed Foods   | Foods to Avoid   | Comments  |
|-----------------------------|---|--|---|
| Milk and milk products      | Fat-free milk,<br>Soy milk without added sugar,<br>Carnation Breakfast Essentials Light Start,<br>Low-fat cottage cheese,<br>Low-fat or nonfat cheese,<br>Low-fat yogurt without nuts, seeds and added sugar,<br>Sugar-free pudding   | Whole and 2% milk,<br>Flavored milk with sugar like chocolate/strawberry<br>High fat cheese  | The milk group provides protein.<br><br>1 cup milk = 8 grams protein<br><br>Fairlife milk is high protein<br><br>Almond milk is low protein |
| Fruit                       | Unsweetened canned fruit in their own juice (no syrup),<br>Ripe banana  | All others   |   |
| Vegetable                   | Soft cooked vegetables without seeds and peels<br>Mashed potatoes   | Vegetables with tough hulls or skins like peas and corn, Raw vegetables  |   |
| Meat<br><br>High in protein | Ground <b>extra lean</b> beef or turkey (meatloaf, meatballs, hamburgers),<br>Poultry (soft and moist, can be cooked with skin, remove skin before eating)<br>Fish (soft and moist)<br>Crab, scallops, oysters (not fried)<br>Tuna packed in water<br>Low-fat deli meats – shaved<br>Eggs | Thick cuts of meat<br>Chewy meats<br>High fat cuts of meat<br>High fat lunch meat such as bologna, salami, etc.),<br>Bacon, Hotdogs,<br>Bratwurst, Italian sausage, Polish sausage | The meat group<br><br>1 ounce meat = about 7 grams protein  |
| Grains/Starch               | Cooked refined cereal,<br>Cold cereal soaked in milk until soggy<br>Oatmeal   | Soft bread (if it can make a dough ball),<br>Rice, Pasta, Macaroni and cheese  | You may feel uncomfortable after eating sticky foods.   |
| Beverages                   | Water, Crystal Light,<br>Sugar-free Kool-Aid, Tea,<br>Coffee, Protein drink<br>Diet V-8 Splash  | Carbonated beverages,<br>Sugar sweetened beverages   | Half of your beverages should contain protein   |

## Sample Soft Menu for after Gastric Surgery

This is a sample menu and may be too much food for you. Stop eating as soon as you feel full.

| Volume of food per meal          | 1/3 cup to 1/2 cup (6 to 8 tablespoons)  |
|----------------------------------|--|
| <b>Breakfast</b>                 | 1/4 cup cooked oatmeal with nonfat milk to thin<br>1 Egg, soft scrambled or 1/4 cup egg substitute (1 egg provides 6 grams protein, 1/4 cup egg substitute provides 7.5 grams protein) |
| <b>Morning Liquid</b>            | 8 ounces water or Crystal Light  |
| <b>Morning Snack</b>             | 1/3 cup soft canned fruit (no sugar, in juice) – if desired  |
| <b>Liquid Protein Supplement</b> | 8 ounces protein drink (provides 13-28 grams protein depending on recipe or product used)  |
| <b>Lunch</b>                     | 1/4 cup tuna fish - 2ounces provides 14 grams protein<br>2 tablespoons mashed potato<br>2 tablespoons green beans  |
| <b>Afternoon Liquid</b>          | 8 ounces water   |
| <b>Afternoon Snack</b>           | 1/2 cup no sugar added, low-fat yogurt (without nuts or seeds) – if desired  |
| <b>Liquid Protein Supplement</b> | 8 ounces protein drink (provides 13-28 grams protein depending on recipe or product used)  |
| <b>Dinner</b>                    | 1/4 cup meatloaf (2 ounces provides 14-16 grams protein)<br>2 tablespoons mashed potato<br>2 tablespoons cooked carrots  |
| <b>Liquid Protein Supplement</b> | 8 ounces protein drink (provides 13-28 grams protein depending on recipe or product used)  |
| <b>Evening Snack</b>             | 1/2 small banana – if desired  |
| <b>Evening Liquid</b>            | 8 ounces water   |

This menu provides approximately 75 grams protein if a 13 gram protein drink is used **3 times a day** and. 90 grams protein if a 28 gram protein drink is used **2 times a day.**

### General tips

- Do not eat and drink at the same time. Wait 30 minutes before and 30 minutes after eating, to drink.
- Cut food into small pieces. Chew food thoroughly (15 – 20 times a bite).
- Put silverware down between bites.
- Stop eating when you first feel full.
- Take 30 minutes to eat each meal.
- Eat protein foods first, then vegetable, fruit, or starchy food.
- Do not eat or drink foods made with sugar.
- Avoid high fat and greasy food.
- If lactose intolerant use soy milk or lactose-free milk
- Take your daily vitamins and mineral supplements.
- Your protein goal: **80-100 grams per day**

## **Foods that should be avoided while on the soft diet**

### **Sticky Foods**

- Soft bread (it can make a ball of dough that could plug up the pouch outlet)
- Rice
- Pasta
- Macaroni and cheese
- High-fat cheese, melted cheese
- Dried fruit (raisins, prunes, and other varieties)

### **Crunchy Foods**

- Granola and other cereals with nuts
- Raw vegetables
- Nuts
- Popcorn
- Chips

### **Tough Foods**

- Tough or chewy meat
- Whole pieces of corn or whole peas

### **Foods with Seeds, Peels, or Husks**

- Strawberries and other Berries
- Corn
- Peas

**High-Fat, High Sugar Foods** – These foods need to be avoided while on the soft diet and limited on the regular diet for weight control. Eating these foods may limit weight loss or cause weight regain.

- Butter, Margarine, Oil (a small amount may be used on the soft diet to keep food moist)
- Regular mayonnaise, Sour cream, Cream cheese, Salad dressing
- Whole milk and 2% milk (use nonfat milk)
- Cream, Half and half
- Bacon
- Sausage
- Luncheon Meats (those containing more than 3 grams of fat per ounce)
- Gravy (a small amount of gravy may be used on the soft diet to keep food moist)
- Ice cream, Cookies, Cakes, Pies, and other Desserts (will cause dumping syndrome)



## Sample Regular Menu for after Gastric Surgery

### Breakfast

|                                   | <u>Protein</u> |
|-----------------------------------|----------------|
| ¼ cup oatmeal made with skim milk | 5              |
| 1 soft scrambled egg              | 6              |
| ¼ cup unsweetened canned peaches  |                |

### Morning Liquid

|                                |   |
|--------------------------------|---|
| 8 ounces skim milk or soy milk | 8 |
|--------------------------------|---|

### Lunch

|                                    |     |
|------------------------------------|-----|
| ¼ cup water packed tuna            | 7   |
| 2 teaspoons reduced fat mayonnaise |     |
| ¼ cup spinach                      | 1.5 |
| ¼ cup unsweetened applesauce       |     |
| 4 saltine type crackers            |     |

### Afternoon Liquid

|   |   |
|---|---|
| 8 ounces skim milk  | 8 |
| 1/3 cup nonfat dry milk   | 8 |
| 1 Carnation Breakfast Essentials Light Start<br>(Do not use this if lactose intolerant) | 5 |

### Dinner

|                                     |    |
|-------------------------------------|----|
| 2 ounces boneless, skinless chicken | 14 |
| 2 teaspoons reduced fat margarine   |    |
| ¼ cup rice                          | 1  |
| ¼ cup broccoli                      | 1  |
| ¼ banana                            |    |

### Evening Liquid

|                                |                 |
|--------------------------------|-----------------|
| 8 ounces skim milk or soy milk | <u>8</u>        |
|                                | <b>72 grams</b> |

### General tips

- Do not eat and drink at the same time. Wait 30 minutes before and 60 minutes after eating, to drink.
- Cut food into small pieces.
- Chew food thoroughly (15 – 20 times a bite).
- Put silverware down between bites.
- Stop eating when you first feel full.
- Take 30 minutes to eat each meal.
- Eat protein foods first, then vegetable, fruit, or starchy food.
- Do not eat or drink foods made with sugar.
- Avoid high fat and greasy food.
- If lactose intolerant use soy milk or lactose-free milk
- Take your daily vitamins and mineral supplements
- Your protein goal: **80-120 grams per day**

## Sample Regular Menu for after Gastric Surgery

| <u>Breakfast</u>  | <u>Protein</u>  |
|---|-----------------|
| 8 ounces skim milk  | 8               |
| 1/3 cup nonfat dry milk   | 8               |
| 1 Carnation Breakfast Essentials Light Start<br>(Do not use this if lactose intolerant) | 5               |
| <br>  |                 |
| <u>Morning Liquid</u>   |                 |
| 8 ounces skim milk or soy milk  | 8               |
| <br>  |                 |
| <u>Lunch</u>  |                 |
| 1/4 cup 2% fat cottage cheese   | 7               |
| 1/4 cup green beans   |                 |
| 1/4 cup unsweetened peaches   |                 |
| 4 saltine type crackers   |                 |
| 2 teaspoons reduced fat margarine   |                 |
| <br>  |                 |
| <u>Afternoon Liquid</u>   |                 |
| 8 ounces skim milk or soy milk  | 8               |
| <br>  |                 |
| <u>Dinner</u>   |                 |
| 2 ounces cooked, lean ground beef   | 14              |
| 2 teaspoons reduced fat margarine   |                 |
| 1/4 cup potato  | 2               |
| 1/4 cup peas  | 2               |
| 1/2 cup melon   |                 |
| <br>  |                 |
| <u>Evening Snack</u>  |                 |
| 8 ounces skim milk or soy milk  | 8               |
|   | <b>68 grams</b> |

- **GENERAL TIPS**

- Do not eat and drink at the same time. Wait 30 minutes before and 60 minutes after eating to drink.
- Cut food into small pieces. Chew food thoroughly (15-20 times a bite).
- Put silverware down between bites.
- Stop eating when you first feel full.
- Take 15 minutes to eat each meal.
- Eat protein foods first, then vegetable, fruit, or starchy food.
- Do not eat or drink foods made with sugar.
- Avoid high fat and greasy food.
- If lactose intolerant use soy milk or lactose-free milk
- Take your daily vitamins and mineral supplements.
- Your protein goal: **80-120 grams per day**

## Protein Supplements

When choosing a protein supplement look for one containing either **whey protein isolate** or **soy isolate**.

**High Protein Powders** - Choose one meets the following guidelines:

- 15 grams protein per 8 ounces
- Less than 20 grams carbohydrate
- Less than 5 grams fat

**Economical choices:**

- No Sugar Added Carnation Breakfast Essentials Light Start (5 grams protein) + 8 ounces fat free milk (8 grams protein) = 13 grams protein
- Double strength milk:  
Add 1/3 cup nonfat dry milk powder (8 grams protein) + 8 ounces fat free milk (8 grams protein) = 16 grams protein
- 8 ounces Double strength milk + No Sugar Added Carnation Breakfast Essentials Light Start= 21 grams protein

Fairlife milk 8 ounces = 13 grams protein

8 ounces Fairlife milk + No Sugar Added Carnation Breakfast Essentials Light Start = 18 grams protein

**Examples of acceptable protein powders:**

Body Fortress Premium Whey Protein Powder – 1 scoop = 20 grams protein

Designer Whey – 1 scoop = 18 grams protein ([www.designerwhey.com](http://www.designerwhey.com))

BiPro Whey protein isolate – 1 scoop = 20 grams protein ([www.biprousa.com](http://www.biprousa.com))

IsoPure Unflavored Whey protein isolate – 1 scoop = 25 grams protein ([www.theisopurecompany.com](http://www.theisopurecompany.com))

EAS AdvantEdge Soy Protein Powder – 1 scoop = 20 grams protein

EAS AdvantEdge 100% Whey Protein Powder – 1 scoop = 23 grams protein

Unjury Whey Protein Powder, Unflavored or Flavored – 1 scoop = 20 grams protein ([www.unjury.com](http://www.unjury.com))

**Examples of acceptable products - ready to drink:**

Premier Protein 11 ounces = 30 grams protein

BiPro Protein Water 16.9 ounces = 20 grams protein ([www.biprousa.com](http://www.biprousa.com))

EAS Myoplex Carb Control 11 ounces = 25 grams protein

Optisource High Protein Drink – 8 ounces = 24 grams protein

Zero Carb Isopure 10 ounces = 20 grams protein ([www.theisopurecompany.com](http://www.theisopurecompany.com))

**High Protein Bars**

Choose one that meet the following guidelines

- 14 – 20 grams protein
- Less than 20 grams carbohydrate
- Less than 5 – 6 grams fat

**Examples of acceptable bars:**

Detour Bar, 1 small bar = 15 grams protein

Pure 20 gram Protein, High protein bar = 20 grams protein

**Do not use Ensure, Boost, Slimfast, or Regular Carnation Breakfast.**

## Making Smart Protein Choices

|   | Food Item                                       | Protein (grams) | Fat (grams) | Calories |
|---|---|-----------------|-------------|----------|
| <b>Focus on Meat, Seafood and Dairy</b> | 1 oz. Beef loin                                 | 8               | 2.3         | 53       |
|   | 1 oz. 2% Cheese                                 | 7               | 6.0         | 80       |
|   | ¼ c. 1% cottage cheese                          | 7               | 0.5         | 40       |
|   | ¼ c. 4% cottage cheese                          | 6               | 2.5         | 60       |
|   | 1 oz. Chicken breast, skin removed              | 9               | 1.0         | 47       |
|   | 1 oz. Clams                                     | 7.2             | 0.3         | 42       |
|   | 1 oz. Crabmeat                                  | 5               | 0           | 20       |
|   | 1 Egg   | 6               | 4.8         | 72       |
|   | ¼ c. Egg substitute                             | 6               | 0           | 30       |
|   | 1 oz. Fish (like cod)                           | 6.5             | 0.3         | 30       |
|   | 8 oz. Milk, nonfat or 1%                        | 8               | 0 – 2.0     | 80       |
|   | 8 oz. Milk, plain, soy                          | 8-11            | 4.0         | 100-130  |
|   | 1/3 c. Milk, dry solids, nonfat (powdered milk) | 8               | 0           | 81       |
|   | 1 oz. Pork loin                                 | 8               | 2.7         | 59       |
|   | ¼ c. Ricotta cheese, Low-fat                    | 7               | 3.0         | 60       |
|   | 1 oz. Salmon                                    | 6.3             | 3.5         | 58       |
|   | 1 oz. Shrimp                                    | 6               | 0.3         | 28       |
|   | 1 oz. Tuna (water)                              | 7.2             | 0.2         | 33       |
| ¼ cup Yogurt, Greek, plain (nonfat)     | 5.0   | 0               | 33          |          |
| <b>Additional sources of protein</b>    | ½ c. Pudding, no sugar, prepared with 2% milk   | 5.0             | 3.0         | 100      |
|   | 1 oz. Tofu                                      | 4.5             | 2.5         | 41       |
|   | ¼ cup Yogurt (nonfat), plain                    | 3.5             | 0           | 36       |
|   | ¼ c. Black beans or kidney beans                | 3.8             | 0           | 57       |
|   | ¼ c. Black eyed peas                            | 2.5             | 2.5         | 50       |
|   | ¼ c. Garbanzo beans                             | 3.6             | 1.0         | 67       |
|   | ¼ c. Great northern beans                       | 3.7             | 0           | 52       |
|   | ¼ c. Lentils                                    | 4.5             | 0           | 58       |
|   | ¼ c. Pinto beans                                | 3.8             | 6.0         | 61       |
|   | ¼ c. Soy beans                                  | 7.0             | 4.0         | 75       |
|   | ¼ c. Split peas                                 | 4               | 0           | 75       |
|   | 1 oz. Oysters                                   | 2               | 0           | 22       |
| <b>LIMIT these items</b>                | 1 Tbsp. peanut butter                           | 4               | 8.1         | 95       |
|   | 1 oz. almonds                                   | 6.3             | 15          | 169      |
|   | 1 oz. cashews                                   | 4.3             | 13.2        | 163      |
|   | 1 oz. peanuts                                   | 6.7             | 14          | 166      |
|   | 1 oz. pecans                                    | 2.7             | 21.1        | 202      |
|   | 1 oz. pistachios                                | 6.1             | 13          | 161      |
|   | 1 oz. walnuts                                   | 4.3             | 18.5        | 185      |
|   | 1 oz. Cheese                                    | 7               | 9.4         | 114      |

1 ounce meat, poultry, fish, cheese = size of a matchbox

1 ounce nuts = about ¼ cup

## **Sugar/Sugar Substitutes**

To prevent dumping syndrome avoid foods high in sucrose (table sugar). Symptoms of dumping syndrome may include cramping, abdominal pain, diarrhea, dizziness, weakness, and rapid heartbeat. Late dumping syndromes may include low blood sugar (hypoglycemia), shakiness, sweating, confusion, and weakness. There are many types of sweeteners. Sweeteners may be caloric or non-caloric.

### **Acceptable sweeteners**

Typically these sweeteners will not cause dumping syndrome in individuals who have had gastric bypass surgery or and other types of stomach surgery.

### **Acesulfame K: non-caloric - Product (Sunnet Sweetener)**

An artificial sweetener 200 times as sweet as sucrose (sugar). It is heat stable it can be used in baking and cooking.

### **Aspartame: caloric - Product (Blue Packets/Box: NutraSweet, Equal Classic)**

An artificial sweetener made of two amino acids. It is 180 times as sweet as sugar. It is so sweet that the amount used per serving has almost no calories.

### **Dulcitol: caloric**

A naturally occurring sugar alcohol.

### **Fructose (fruit sugar, levulose): caloric**

One of the most common natural sugars. It is found mostly in fruit and honey. The sweetness of pure fructose varies. It can be almost twice as sweet as sucrose (sugar). Fructose is not associated with a rapid and high rise in blood glucose level. It is typically well tolerated.

### **Maltose: caloric**

Formed by two linked glucose molecules. It rapidly breaks down to glucose in the intestine.

### **Mannitol: caloric**

A naturally occurring sugar alcohol that causes that raises blood sugar less than sucrose (sugar) or glucose does. It is about half as sweet as sucrose (sugar) and is slowly absorbed into the blood. In large amounts it can cause diarrhea.

## **Sugar/Sugar Substitutes**

### **Acceptable sweeteners continued**

#### **Lactose: caloric**

Naturally occurring sugar in milk. It makes up 4.5% of cow's milk.

#### **Saccharin: non-caloric - Product (Pink Packet/Box: Sweet'N Low, Equal Saccharin, Sugar Twin)**

The most commonly used non-caloric sweetener in the U.S. It is about 375 times sweeter than sucrose (sugar).

#### **Sorbitol: caloric**

A naturally occurring sugar alcohol found in plants. It is commercially produced from glucose. It is about half as sweet as sucrose (sugar) and is slowly absorbed into the blood. In large amounts it can cause diarrhea. It causes only a small rise in blood glucose. In large amounts it may cause cramping or diarrhea. It is widely used in "diabetic foods".

#### **Sucralose: Products (Yellow Packet/Box: Splenda, Equal Sucralose)**

Sucralose starts out as sucrose (table sugar) but has been changed so it can't be digested. This makes it calorie-free.

#### **Stevia: caloric**

Derived from the stevia rebaudiana plant. It is known as sweet leaf or sweet herb. It is accepted as a low-calorie sweetener in several countries. In the U.S. stevia can only be sold as a dietary supplement. The FDA has not approved it as a food additive. Stevia is about 300 times sweeter than table sugar.

#### **Xylitol: caloric**

A naturally occurring sugar alcohol produced from xylose (bark sugar). It is slowly absorbed and causes less of a rise in blood sugar than sucrose or glucose does. In large amounts it can cause diarrhea.

## **Sugar/Sugar Substitutes**

### **Sweeteners to avoid**

These sweeteners are likely to cause dumping syndrome in individuals who have had gastric bypass surgery or other types of stomach surgery.

### **Carob powder (carob flour): caloric**

Made by grinding the pod of the carob tree. Tastes similar to chocolate. It is 75 % sucrose, glucose and fructose.

### **Dextrin: caloric**

Consists of chains of glucose molecules. Their effect on blood glucose has not been well evaluated, but may be similar to glucose.

### **Glucose (corn sugar, dextrose, grape sugar): caloric**

A naturally occurring sugar that normally causes a fast and high rise in blood sugar. The body creates glucose during digestion by breaking down carbohydrates in food and then uses it for energy. Glucose builds up in your blood if your diabetes is not well controlled. High blood sugar does not cause the dumping syndrome.

### **Glucose syrups (corn syrup, corn syrup solids, sorghum syrup, starch syrup, sugar cane syrup): caloric**

Liquid sweeteners produced by the breakdown of starch. They contain a mixture of glucose and maltose. Corn syrup solids are the crystallized form of corn syrup.

### **High fructose corn syrups: caloric**

Produced from corn syrups. They contain between 42 – 90% fructose. The remaining part of the syrup is mostly glucose.

### **Honey (comb honey, cream honey): caloric**

A natural syrup that varies in sugar and flavor. It is about 35% glucose about 40% fructose and water.

### **Maple syrup (maple sugar): caloric**

Made from the sap of the maple and other trees. It is mostly sucrose (sugar). The crystallized syrup is maple sugar.

### **Milk chocolate (bitter chocolate, bittersweet chocolate): caloric**

Produced by mixing milk, sugar, and cocoa butter to bitter chocolate. Milk chocolate contains about 43% sugar. Bittersweet chocolate contains about 40% sugar.

## **Sugar/Sugar Substitutes**

### **Sweeteners to avoid continued**

#### **Molasses (blackstrap, golden syrup, refiners' syrup, treacle, unsulfured): caloric**

The sugar drawn from sugar crystals as they are refined into pure sucrose (sugar). Different types are usually made during sucrose (sugar) refinement. All types contain 50-75% sucrose (sugar) and should be avoided.

#### **Sucrose (beet sugar, brown sugar, cane sugar, confectioner's sugar, invert sugar, powdered sugar, raw sugar, saccharose sugar, sugar, table sugar, turbinado): caloric**

A naturally occurring sugar made from sugar cane or sugar beets. It's what we think of when we say the word "sugar". It is made of equal parts glucose and fructose. This should be avoided.

#### **Sweetened condensed whole milk (sweetened condensed milk, sweetened condensed whey): caloric**

Made by cutting the water content of milk in half and then adding sugar. The final product is about 44% sucrose (sugar).



## Reading a Food Label for Weight Loss

When selecting foods, be aware of how much sugar, protein, and fat is in those foods. Looking at a food label is a great way to determine how much of these you are eating.

### Servings

The first thing to look at is the serving size and how many servings per package. The nutrition facts on the label apply to one serving of the food. This food item has four servings in the package. If you eat the whole package, multiply all of the nutrition facts by four to determine what you ate.

Ex: 4 servings x 120 calories/serv. = 480 total cal.

### Total Fat

To help you lose weight, choose foods that are low in total fat. Grains and dairy products should have 3 or less grams of fat per serving. Meat and cheese should have about 3 grams of fat per ounce. This food item has 2 grams of fat per serving and .5 grams of fat per ounce.

### Carbohydrate Guidelines

The 'total carbohydrate' line will show you the number of grams of carbohydrate in one serving of the food. You do not need to add in the grams of fiber or sugars. These are already added into the total carbohydrate count. This food item has 22 grams of carbohydrate per serving.

### Sugars

Some types of sugar are not okay for you to eat after weight loss surgery. This section of the food label will not tell you what type of sugar or sugar substitute is in the food. Look in the ingredients section for this. Compare the types of sugar to the Sugar/Sugar Substitutes handout to find out if the food is okay.

As a general rule, if sugar is listed as one of the first 4 ingredients, the food has too much sugar in it for you to eat.

### Protein

Choosing foods that are high in protein will help you meet your daily protein needs more easily. Try to eat a total of 50-60 grams of protein each day. This food contains 4 grams of protein per serving.

| <b>Nutrition Facts</b>                                   |                      |
|--|----------------------|
| <b>Serving Size 4 ounces</b>                             |                      |
| <b>Servings per container 4</b>                          |                      |
| <b>Amount Per Serving</b>                                |                      |
| <b>Calories</b> 120                                      | Calories from Fat 15 |
| <b>% Daily Value*</b>                                    |                      |
| <b>Total Fat</b> 2g                                      | <b>3%</b>            |
| Saturated Fat 1g   | <b>5%</b>            |
| Trans Fat 0 g  |                      |
| <b>Cholesterol</b> 5mg                                   |                      |
| <b>Sodium</b> 60mg                                       |                      |
| <b>Potassium</b> 160 mg                                  |                      |
| <b>Total Carbohydrate</b> 22g                            |                      |
| Sugars 19g   |                      |
| <b>Protein</b> 4g  |                      |
| Calcium 15%  | Vitamin D 15%        |
| * Percent Daily Values are based on a 2,000 calorie diet |                      |

**Nutrition Facts**  
 Serving Size: 1 Container (150g)  
 Servings Per Package 4

| Amount Per Serving           |                     |
|------------------------------|---------------------|
| Calories 80                  | Calories from Fat 0 |
| % Daily Value*               |                     |
| <b>Total Fat</b> 0g          | <b>0%</b>           |
| Saturated Fat 0g             | 0%                  |
| Trans Fat 0g                 |                     |
| <b>Cholesterol</b> 10mg      | <b>3%</b>           |
| <b>Sodium</b> 45mg           | <b>2%</b>           |
| <b>Potassium</b> 150mg       | <b>4%</b>           |
| <b>Total Carbohydrate</b> 9g | <b>3%</b>           |
| Dietary Fiber 0g             | 0%                  |
| Sugars 7g                    |                     |
| <b>Protein</b> 12g           | <b>24%</b>          |
| Vitamin A 0%                 | Vitamin C 0%        |
| Calcium 15%                  | Iron 0%             |

\*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 | 300mg           | 300mg   |
| Sodium             | Less than | 2,400mg         | 2,400mg |
| Potassium          |           | 3,500mg         | 3,500mg |
| Total Carbohydrate |           | 300g            | 375g    |
| Dietary Fiber      |           | 25g             | 30g     |
| Protein            |           | 50g             | 65g     |

**INGREDIENTS:** CULTURED GRADE A NON FAT MILK, WATER, BLUEBERRY PUREE, FRUCTOSE, CONTAINS LESS THAN 1% OF MODIFIED CORN STARCH, NATURAL FLAVOR, CARMINE (FOR COLOR), SUCRALOSE, MALIC ACID, POTASSIUM SORBATE (TO MAINTAIN FRESHNESS), ACESULFAME POTASSIUM, SODIUM CITRATE.

Milk sugar, lactose - ok

Fruit Sugar - ok

Splenda

Sugar Substitute

CONTAINS ACTIVE YOGURT CULTURES

**Nutrition Facts**  
 Serving Size 1 container (113g)  
 Servings Per Package 4

| Amount Per Serving            |                      |
|-------------------------------|----------------------|
| Calories 120                  | Calories from Fat 15 |
| % Daily Value*                |                      |
| <b>Total Fat</b> 2g           | <b>3%</b>            |
| Saturated Fat 1g              | 5%                   |
| Trans Fat 0g                  |                      |
| <b>Cholesterol</b> 5mg        | <b>2%</b>            |
| <b>Sodium</b> 65mg            | <b>3%</b>            |
| <b>Potassium</b> 160mg        | <b>5%</b>            |
| <b>Total Carbohydrate</b> 22g | <b>7%</b>            |
| Sugars 19g                    |                      |
| <b>Protein</b> 4g             | <b>8%</b>            |
| Calcium 15%                   | Vitamin D 10%        |

Not a significant source of Dietary Fiber, Vitamin A, Vitamin C and Iron.  
 \*Percent Daily Values are based on a 2,000 calorie diet.

**INGREDIENTS:** CULTURED GRADE A REDUCED FAT MILK, STRAWBERRY, SUGAR, FRUCTOSE, WATER, MODIFIED FOOD STARCH, CONTAINS LESS THAN 1% OF MILK PROTEIN CONCENTRATE, MODIFIED CORN STARCH, KOSHER GELATIN, NATURAL FLAVOR, AGAR AGAR, CARRAGEENAN, CARMINE (FOR COLOR), SODIUM CITRATE, CALCIUM LACTATE, LACTIC ACID, XANTHAN GUM, VITAMIN D3.

**CONTAINS THE ACTIVE CULTURES L.BULGARICUS, S.THERMOPHILUS AND BIFIDOBACTERIUM LACTIS DN 173-010 (BIFIDUS REGULARIS®)**  
 MANUFACTURED IN A PLANT PROCESSING WHEAT

Sugar = dumping

**Pureeing Foods**

Instructions for pureeing foods:

1. Cut food into tiny pieces, about the size of a dime.
2. Place food in a blender.
3. Add liquid (Fat-free broth or Fat-free gravy) to cover the blender blade.
4. Blend until very smooth (like applesauce).
5. Before using, strain out any lumps or pieces of food that did not blend.
6. Add desired spices (not too spicy) and blend again.

### **Storing**

Use ice cube trays. Each cube will hold about 1 ounce. You can prepare and freeze pureed meats, pureed vegetables, and pureed fruits.

### **Helpful measurements:**

1 ounce =  $\frac{1}{8}$  cup = 2 Tablespoons

2 ounces =  $\frac{1}{4}$  cup = 4 Tablespoons

4 ounces =  $\frac{1}{2}$  cup = 8 Tablespoons

## Pureed/Blended Recipes

### **Pumpkin Pudding**

1 package (1.4 ounce) Butterscotch Jell-O Sugar-free instant pudding  
2 cups Fat-free milk  
1/3 cup nonfat dry milk powder  
1/2 cup canned pumpkin  
1/2 tsp pumpkin pie spice  
1/4 tsp cinnamon  
1/8 tsp nutmeg  
1/8 tsp ginger

Mix the nonfat dry milk powder with the Fat-free milk. Using a fork, mix the dry pudding mix and spices in a medium bowl. Pour in the milk. Add the pumpkin. Blend until mixed well (use a wire whisk or mixer). Pour into 4 individual dishes.

Chill until cold.

**Makes 4 (1/2 cup) servings**

**Per serving: Protein 7 grams, Carbohydrate: 17 grams, Calories: 90**

### **Oatmeal with Protein**

1/2 cup skim milk  
2 1/2 tablespoons nonfat dry milk powder  
1/4 cup old fashioned oatmeal  
Cinnamon and no calorie sweetener (Splenda, Equal, Stevia, etc.) to taste

Mix the nonfat dry milk powder with the Fat-free milk in a small pot. Add the oatmeal and cook on low heat, do not boil. Place mixture into the blender, blend until smooth. Add cinnamon and no calorie sweetener to taste.

**Makes 1 (1/2 cup) serving**

**Per serving: Protein 10 grams, Carbohydrate 26 grams, Calories: 155**

### **Blended Fruit with Cottage Cheese**

1 cup 1% cottage cheese  
1/2 cup canned fruit (low sugar or canned in its own juice)

Add cottage cheese and fruit to blender. Blend until very smooth.

**Makes 2 (1/2 cup) servings**

**Per serving: Protein: 14 grams, Carbohydrate: 12 grams, Calories: 115**

## Pureed/Blended Recipes

### **Sunshine Smoothie**

1 cup 1% cottage cheese  
½ cup skim milk  
2 ½ tablespoons nonfat dry milk  
1 small banana (6 inch long)  
3 tablespoons Sugar-free orange marmalade (made with Splenda)

Place all ingredients into a blender and cover. Blend until very smooth.

**Makes 3 (1 cup) servings**

**Per serving: Protein: 12 grams, Carbohydrate: 19 grams, Calories: 122**

### **Mocha Shake**

½ teaspoon instant coffee  
¼ cup hot water  
1 package Chocolate Carnation Breakfast Essentials Light Start  
1/3 cup nonfat dry milk  
5 ice cubes, crushed

Mix coffee crystals in hot water. Pour into a blender. Add other ingredients and mix until smooth.

**Makes 1 cup**

**Per serving: Protein 13 grams, Carbohydrate: 24 grams, Calories: 140**

### **Tofu Chocolate Pudding**

12 ounces light silken tofu  
1/3 cup Fat-free milk  
1/3 cup Splenda  
¼ cup cocoa powder

Place tofu, Splenda and cocoa powder in a blender. Start blending while adding the milk slowly. Blend until smooth. Place pudding in 4 individual dishes. Chill for at least 20 minutes before serving.

**Makes 4 (2/3 cup) servings**

**Per serving: Protein 9 grams, Carbohydrate: 4 grams, Calories: 57**

## High Protein Recipe Ideas for after Gastric Surgery

### Citrus Julius

1 cup nonfat milk or soy milk  
1/3 cup nonfat dry milk powder  
1 packet orange flavored Crystal Light  
3 – 4 ice cubes

Mix milk with nonfat dry milk. Put milk mixture in a blender. Add the orange Crystal Light and ice cubes. Blend until smooth.

**1 serving = 16 grams protein**

### Choco-banana Smoothie

1 cup nonfat milk or soy milk  
1/3 cup nonfat dry milk  
1 packet Carnation Breakfast Essentials Light Start – chocolate flavor  
1/3 ripe banana (cut into chunks and frozen)

Mix milk well with nonfat dry milk. Put milk mixture in a blender. Add the Carnation Breakfast Essentials Light Start and banana. Blend until smooth.

**1 serving = 21 grams protein**

### High Protein Sugar-free Pudding

1 package sugar-free instant pudding  
2 cups nonfat milk or soy milk  
2/3 cup nonfat dry milk

Mix milk well with nonfat dry milk. Pour sugar-free instant pudding into a medium sized bowl. Add milk mixture and stir according to the directions on the pudding box.

**Makes 4 (1/2 cup servings)      1 serving = 9 grams protein**

### Blueberry Smoothie

1-cup nonfat milk or soy milk  
1/3 cup nonfat dry milk powder  
½ cup frozen blueberries  
1 packet vanilla Carnation Breakfast Essentials Light Start

Mix milk and nonfat dry milk together well in a blender. Add the instant breakfast and frozen blueberries. Blend until smooth.

**1 serving = 21 grams protein**

**Strawberry Smoothie (makes 2 servings)**

½ cup nonfat milk or soy milk  
2 ½ Tablespoons nonfat dry milk powder  
½ cup Low-fat cottage cheese  
½ tsp. vanilla  
2 – 4 packets of no-calorie sweetener (Splenda, Equal, Stevia, etc.)  
1 cup frozen strawberries

Blend milk, nonfat dry milk powder and cottage cheese until smoothie. Add vanilla. Add ½ cup strawberries and blend well. Add remaining ½ cup strawberries and no calorie sweetener and blend well.

**1 serving = 12 grams protein**

**High Protein, Low-fat Cream Soup (Makes 3 servings)**

1 can 98% Fat-free cream soup (like Campbell's 98% Fat-free cream of chicken)  
1 can nonfat evaporated skim milk (example – Carnation nonfat)  
1 small jar of baby food-poultry

Place all ingredients into a blender and blend well.

**1 serving = 12 grams protein**

**Low Calorie Peanut Butter (recipe is from Canyon Ranch Spa)**

1 cup part-skim ricotta cheese  
¼ cup smooth peanut butter  
2 ¼ teaspoons vanilla extract  
½ teaspoon cinnamon

Combine all ingredients in a blender or food processor and process until very smooth. If you want a sweeter product, you can add sweetener to your taste. Place in a covered container and refrigerate.

**2 Tablespoons = 5 grams protein, 70 calories**

(compare to regular peanut butter – 2 Tablespoons = 8 grams protein, 190 calories)

**Sugar-free High Protein Cocoa**

1-cup nonfat milk or soy milk  
1/3 cup nonfat dry milk powder  
1 – 2 Tablespoons unsweetened cocoa powder  
No calorie sweetener (Splenda, Equal, Stevia, etc.)

Mix nonfat dry milk powder, cocoa powder, and no calorie sweetener together. Gradually stir in milk until smooth. Heat in microwave or in pan on stove top, to desired temperature.

**1 serving = 16 grams protein**

## Other Recipes with Added Protein

- 1 soft scrambled egg with 2 tablespoons Low-fat shredded cheese (2% cheese) **1 serving = 10 grams protein**
- 1/3 cup plain, Greek yogurt – add vanilla and artificial sweetener to taste **1 serving = 7 grams protein**
- ¼ cup part skim ricotta cheese – add 2 teaspoons spaghetti sauce and 2 Tablespoons Low-fat cheese (2% cheese) **1 serving = 11 grams protein**
- ¼ cup Fat-free refried beans (like Old El Paso) – add 2 Tablespoons Low-fat cheese (2% cheese) and melt **1 serving = 7 grams protein**
- ½ cup water packed albacore tuna – add 1 chopped hardboiled egg and 1 Tablespoon Low-fat mayonnaise (Makes 2 servings) **1 serving = 15 grams protein**
- Cheesy egg substitute - ½ cup Fat-free liquid egg substitute (like Egg Beaters) + 1 wedge Light Laughing Cow cheese wedge (cut into pieces) – Spray a large micro-safe mug with nonstick spray. Add egg substitute and cheese and stir. Microwave to about 1 minute. Stir gently and microwave about 30 seconds until set. Stir and eat. **1 serving = 14 grams protein, ½ serving = 7 grams protein**
- Turkey omelet – ¼ cup egg substitute (like Egg Beaters) + 2 slices turkey deli meat (chopped) + 2 Tablespoons Low-fat cheese (2% cheese) – Spray small skillet with nonstick spray. Add egg substitute and cook on low until eggs start to set. Top with deli turkey and cheese. Folds in half like an omelet. **1 serving = 13 grams protein**