



## Gastroparesis

**What is Gastroparesis?** Gastroparesis is a disorder that slows or stops the movement of food from the stomach to the small intestine. The stomach muscles are controlled by the vagus nerve and normally contract to break up food and move it through the gastrointestinal (GI) tract.

Gastroparesis is also known as delayed gastric emptying.

### Symptoms of Gastroparesis

1. Nausea
2. Feeling of fullness after eating—even a small meal
3. Vomiting undigested food—sometimes several hours after eating
4. Gastroesophageal Reflux (GERD)
5. Stomach pain
6. Abdominal bloating
7. Lack of appetite

**What causes Gastroparesis?** Most people who are diagnosed with gastroparesis have idiopathic gastroparesis which means that even with testing there is no known cause. Diabetes is the most common known cause of gastroparesis. High blood sugar levels can damage the Vagus nerve.

Other identifiable causes include intestinal surgery and nervous system disorders like Parkinson's disease and Multiple Sclerosis. Gastroparesis is more common in women than in men.

The purpose of the gastroparesis diet is to reduce symptoms and maintain adequate fluids and nutrition. There are three steps to the diet:

**Step One Diet** – Consists of liquids, which pass through the stomach quickly. Liquids prevent dehydration and supply the body with necessary salts and minerals. Step One diet is inadequate

in all nutrients except sodium and potassium. It should not be followed for more than three days without additional nutrition support.

**Step Two Diet** – Provides additional calories by adding a small amount of dietary fat – less than 40 grams each day. For patients with gastroparesis, fatty foods and oils should be restricted because they delay gastric emptying. However, most patients Step Two level are usually able to tolerate this amount. Step Two diet may be inadequate in Vitamins A and C and the mineral iron. A multivitamin is usually prescribed.

**Step Three Diet** – is designed for long-term maintenance. Fat is limited to 50 grams/ day and fibrous foods are restricted, because many plant fibers cannot be digested. Step Three diet may be inadequate in Vitamins A and C and the mineral iron. A multivitamin is usually prescribed.

**Special Considerations:**

Diets must be tailored to the individual patient because the degree of gastroparesis may range from mild and easily corrected to severe and long standing. Special medical conditions must be considered. For example, patients with diabetes that have gastroparesis are allowed sugar containing liquids on Step One diet because that is their only source of carbohydrates. However, these patients should avoid concentrated sweets on Step Two and Step Three diets. (These foods are noted with an asterisk (\*) on the food lists.

On all of the diets, liquids and foods should be taken in small, frequent meals in order to maintain adequate nutrition.

**Step One Diet Food Groups**

| <b>Groups</b>               | <b>Recommended</b>  | <b>Avoid</b> |
|-----------------------------|---|--------------|
| Milk and Milk Products      | None  | All          |
| Vegetables                  | None  | All          |
| Fruits                      | None  | All          |
| Breads and Grains           | Plain saltine crackers                                      | All others   |
| Meats and Meat Alternatives | None  | All          |
| Fats and Oils               | None  | All          |
| Sweets and Desserts         | None  | All          |
| Beverages                   | Gatorade and soft drinks (sipped slowly throughout the day) | All others   |
| Soups                       | Fat-free consommé and bouillon                              | All others   |

| Step One Sample Menu: |                      |                      |
|-----------------------|----------------------|----------------------|
| Breakfast             | Lunch                | Dinner               |
| Gatorade ½ cup        | Gatorade ½ cup       | Gatorade ½ cup       |
| Ginger ale ½ cup      | Coke ½ cup           | Sprite ½ cup         |
| Bouillon ¾ cup        | Bouillon ¾ cup       | Bouillon ¾ cup       |
| Saltine crackers – 6  | Saltine crackers - 6 | Saltine crackers - 6 |

Nutrition Information Provided by Step One Diet:

|               |        |
|---------------|--------|
| Calories      | 790    |
| Fats          | 90mg   |
| Protein       | 11gm   |
| Carbohydrates | 156gm  |
| Sodium        | 3531mg |
| Potassium     | 244mg  |

**Step Two Diet Food Groups**

| Groups                 | Recommended   | Avoid   |
|------------------------|---|---|
| Milk and Milk Products | Skim milk, products made with skim milk, low-fat yogurt, low-fat cheeses  | Whole milk products, creams (sour, light, heavy whipping), half and half  |
| Vegetables             | Vegetable juice (tomato, V-8, well-cooked vegetables without skins (acorn squash, beets, carrots, mushrooms, potatoes, spinach, summer squash, strained tomato sauce, yams) | All raw vegetables, cooked vegetables with skins, beans (green, wax, lima), broccoli, Brussels sprouts, cabbage, cauliflower, celery, corn, eggplant, onions, peas, peppers, peas, peppers, pea pods, sauerkraut, turnips, water chestnuts, zucchini. |
| Fruits                 | Apple juice, cranberry juice, grape juice, pineapple, prune juice, canned fruits without skins, (applesauce, peaches, pears).   | Citrus juices, all fresh and dried fruits, canned fruits with skins (apricots, cherries, blueberries, fruit cocktail, oranges, grapefruit, pineapple, plums, persimmons)  |

|                             |   |   |
|-----------------------------|---|---|
| Breads and Grains           | Breads and cereals, cream of wheat, pasta, white rice, egg noodles, low fat crackers  | Oatmeal, whole grain rice, whole grain cereal, whole grain breads.              |
| Meats and Meat Alternatives | Eggs, peanut butter (maximum 2 Tablespoons/ day)  | Beef, poultry, fish, pork products, dried beans, dried peas, dried lentils.     |
| Fats and Oils               | Any type of fat, but only in small amounts  | None  |
| Sweets and Desserts         | Hard candies, caramels, puddings and custards made from skim milk, frozen yogurt, fruit ice, gelatin, ice milk, jelly, honey, syrup | High-fat desserts (cakes, pies, cookies, pastries, ice cream), fruit preserves. |
| Beverages                   | Gatorade and soft drinks (sipped slowly throughout the day)   | All others except allowed juices  |
| Soups                       | Fat-free consommé and bouillon, soups made from skim milk, and fat free broths containing pasta or noodles and allowed vegetables   | Soups made with cream, whole milk, or broths containing fat                     |

| Step Two Sample Menu:  |                                    |  |   |  |  |
|--|------------------------------------|--|---|--|--|
| Breakfast  | Morning Snack                      | Lunch  | Afternoon Snack                             | Dinner   | Evening Snack                            |
| Skim milk ½ c<br>Poached egg 1<br>1 slide white toast<br>Apple Juice ½ c | Ginger ale ½ c<br>Canned pears ½ c | Mozzarella cheese – 2oz<br>6 saltine crackers<br>Chicken noodle soup – ¾ c<br>Gatorade ½ c | Skim milk ½ c<br>Cornflakes ½ c<br>Sugar 2t | Peanut butter- 1T<br>6 Saltine crackers<br>Vanilla pudding ½ c<br>Grape juice ½c | Frozen Yogurt 1/2 c<br>6 Saline crackers |

Nutrition Information Provided by Step Two Diet:

|               |        |
|---------------|--------|
| Calories      | 1343   |
| Fats          | 35mg   |
| Protein       | 52gm   |
| Carbohydrates | 206gm  |
| Sodium        | 2639mg |
| Potassium     | 1411mg |

**Step Three Diet Food Groups**

| <b>Groups</b>               | <b>Recommended</b>  | <b>Avoid</b>  |
|-----------------------------|---|---|
| Milk and Milk Products      | Skim milk, products made with skim milk, low-fat yogurt, low-fat cheeses  | Whole milk products, creams (sour, light, heavy whipping), half and half  |
| Vegetables                  | Vegetable juice (tomato, V-8, well-cooked vegetables without skins (acorn squash, beets, carrots, mushrooms, potatoes, spinach, summer squash, strained tomato sauce, yams) | All raw vegetables, cooked vegetables with skins, beans (green, wax, lima), broccoli, Brussels sprouts, cabbage, cauliflower, celery, corn, eggplant, onions, peas, peppers, peas, peppers, pea pods, sauerkraut, turnips, water chestnuts, zucchini. |
| Fruits                      | Fruit juices, canned fruits without skins (applesauce, peaches, pears)  | Citrus juices, all fresh and dried fruits, canned fruits with skins (apricots, cherries, blueberries, fruit cocktail, oranges, grapefruit, pineapple, plums, persimmons)  |
| Breads and Grains           | Breads and cereals, cream of wheat, pasta, white rice, egg noodles, low fat crackers  | Oatmeal, whole grain rice, whole grain cereal, whole grain breads.  |
| Meats and Meat Alternatives | Eggs, peanut butter (maximum 2 Tablespoons/ day)  | Beef, poultry, fish, pork products, dried beans, dried peas, dried lentils.   |
| Fats and Oils               | Any type of fat, but only in small amounts  | None  |

|                     |   |   |
|---------------------|---|---|
| Sweets and Desserts | Hard candies, caramels, puddings and custards made from skim milk, frozen yogurt, fruit ice, gelatin, ice milk, jelly, honey, syrup   | High-fat desserts (cakes, pies, cookies, pastries, ice cream), fruit preserves. |
| Beverages           | Gatorade* and soft drinks (sipped slowly throughout the day), coffee, tea, water ( note: non-caloric beverages should be limited if patient cannot maintain adequate intake.)<br>\Concentrated.sweets | All others except allowed juices  |
| Soups               | Fat-free consommé and bouillon, soups made from skim milk, and fat free broths containing pasta or noodles and allowed vegetables   | Soups made with cream, whole milk, or broths containing fat                     |

| Step Three Sample Menu:   |                                   |  |   |   |                            |
|---|-----------------------------------|--|---|---|----------------------------|
| Breakfast   | Morning Snack                     | Lunch  | Afternoon Snack                         | Dinner  | Evening Snack              |
| Skim milk ½ c<br>Cream of wheat ½ c<br>Orange juice ½c<br>1 slice white toast<br>Margarine 1t<br>Jelly 1T | Low fat yogurt 1/2c<br>Sprite ½ c | Tuna fish 2oz<br>Low fat mayo 2T<br>2 Slices White bread<br>Canned peaches ½ c<br>Gatorade ½ c | Chocolate pudding ½ c<br>Ginger Ale ½ c | Baked chicken 2oz<br>White rice ½ c<br>Cooked beets ½ c<br>1 Dinner roll<br>Skim milk ½ c<br>Margarine 2t | Ice milk ½ c<br>2 pretzels |

Nutrition Information Provided by Step Three Diet:

|               |        |
|---------------|--------|
| Calories      | 1822   |
| Fats          | 42mg   |
| Protein       | 75gm   |
| Carbohydrates | 286gm  |
| Sodium        | 2234mg |
| Potassium     | 2467mg |

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