

## **GASTROPARESIS DIET FOR DELAYED STOMACH EMPTYING**

### **PURPOSE**

Gastroparesis is the medical term for delayed stomach emptying. During the process of digestion, the stomach must contract to empty itself of food and liquid. Normally, it contracts about three times a minute. This empties the stomach within 90-120 minutes after eating. If contractions are sluggish or less frequent, stomach emptying is delayed. This results in bothersome and sometimes serious symptoms, as well as malnutrition, because food is not being digested properly.

Gastroparesis may be caused by various conditions such as diabetes mellitus, certain disorders of the nervous system, or certain drugs. Often however, no cause can be found although a viral is suspected in some. Usually the physician prescribes medication to stimulate the stomach to contract. The purpose of the Gastroparesis Diet is to reduce symptoms and maintain fluids and nutrition. There are three steps to the diet:

- **STEP 1 DIET:** Consists of liquids, which usually leave the stomach quickly by gravity alone. Liquids prevent dehydration and keep the body supplied with vital salts and minerals.
- **STEP 2 DIET:** Provides additional calories by adding a small amount of dietary fat – less than 40g each day. For patients with Gastroparesis, fatty foods and oils should be restricted because they delay stomach emptying. However patients at the Step 2 level are usually able to tolerate this amount.
- **STEP 3 DIET:** Designed for long-term maintenance. Fat is limited to 50g per day, and fibrous foods are restricted because many plant fibers cannot be digested.

### **NUTRITION**

The Step 1 Gastroparesis Diet is inadequate in all nutrients except sodium and potassium. It should not be continued for more than three days without additional nutritional support. Step 2 and Step 3 Gastroparesis Diets may be adequate in Vitamins A and C, and the mineral Iron. A multi-vitamin supplement is usually prescribed.

### **SPECIAL CONSIDERATIONS**

1. Diets must be tailored to the individual patient. This is because the degree of Gastroparesis may range from severe and long-standing to mild and easily corrected. Patients may also have various medical conditions to be considered. For example, diabetes patients with Gastroparesis are allowed sugar-containing liquids on the Step 1 Diet, because that is their only source of carbohydrate. On the Step 2 and Step 3 Diets, these patients should avoid

concentrated sweets. These are noted with an asterisk (\*) on the food lists.

- On all of the diets, liquids and food should be eaten in small, frequent meals. This helps maintain nutrition.

<b>STEP 1 FOOD GROUPS</b>		
<b>Group</b>	<b>Recommend</b>	<b>Avoid</b>
Milk & Milk Products	None	All
Vegetables	None	All
Fruits	None	All
Breads & Grains	Plain saltine crackers	All others
Meat & Meat Substitutes	None	All
Fats & Oils	None	All
Beverages	Gatorade and soft drinks (sipped slowly throughout the day)	All others
Soups	Fat-free consommé and bouillon	All others

<b>SAMPLE MENU STEP 1</b>			
<b>Breakfast</b>	<b>Lunch</b>		<b>Dinner</b>
<ul style="list-style-type: none"> <li>Gatorade, ½ cup</li> <li>Ginger Ale, ½ cup</li> <li>Bouillon, ¾ cup</li> <li>Saltine Crackers, 6</li> </ul>	<ul style="list-style-type: none"> <li>Gatorade, ½ cup</li> <li>Coke, ½ cup</li> <li>Bouillon, ¾ cup</li> <li>Saltine Crackers, 6</li> </ul>		<ul style="list-style-type: none"> <li>Gatorade, ½ cup</li> <li>Sprite, ½ cup</li> <li>Bouillon, ¾ cup</li> <li>Saltine Crackers, 6</li> </ul>
<b>This Sample Diet Provides the Following</b>			
Calories	790	Fat	9g
Protein	11g	Sodium	3531mg
Carbohydrates	156g	Potassium	244mg

<b>STEP 2 FOOD GROUPS</b>		
<b>Group</b>	<b>Recommend</b>	<b>Avoid</b>
Milk & Milk Products	Skim milk, products made with skim milk, low-fat milk, low-fat yogurt, low-fat cheeses	Whole milk products, creams (sour, light, heavy, whipping), half & half
Soups	Fat-free consommé and bouillon, soups made from skim milk and fat-free broths containing pasta or noodles and vegetables are allowed	Soups made with cream, whole milk, or broths containing fat
Breads & Grains	Breads and cereals, cream of wheat, pasta, white rice, egg noodles, low-fat crackers	Oatmeal, whole grain rice, cereal and bread
Meat & Meat Substitutes	Eggs, peanut butter (maximum 2 tbsp/day)	Beef, poultry, fish, pork products, dried beans, peas and lentils

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, brussel sprouts, cabbage, cauliflower, celery, corn, eggplant, onions, peas, peppers, pea pods, sauerkraut, turnips, water chestnuts, zucchini
Fruits	Apple juice, cranberry juice, grape juice, pineapple juice, 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)
Fats & Oils	Any type of fat, but only in small amounts	None
Sweets & Desserts*	Hard candies, caramels, puddings and custards made from skim milk, frozen yogurt, fruit ice, gelatin, ice milk, jelly, honey, syrups	High-fat desserts (cakes, pies, cookies, pastries, ice cream), fruit preserves
Beverages	Gatorade*, soft drinks*, (sipped slowly throughout the day)	All others, except allowed juices
*Concentrated sweets		

SAMPLE MENU STEP 2			
<b>Breakfast</b>	<b>Lunch</b>	<b>Dinner</b>	
<ul style="list-style-type: none"> <li>• Skim Milk, ½ cup</li> <li>• Poached Egg, 1</li> <li>• White Toast, 1 slice</li> <li>• Apple Juice, ½ cup</li> </ul>	<ul style="list-style-type: none"> <li>• Mozzarella Cheese, 2 oz</li> <li>• Saltine Crackers, 6</li> <li>• Chicken Noodle Soup, ¾ cup</li> <li>• Gatorade, ½ cup</li> </ul>	<ul style="list-style-type: none"> <li>• Peanut Butter, 1 tbsp</li> <li>• Saltine Crackers, 6</li> <li>• Vanilla Pudding, ½ cup</li> <li>• Grape Juice, ½ cup</li> </ul>	
<b>Morning Snack</b>	<b>Afternoon Snack</b>	<b>Evening Snack</b>	
<ul style="list-style-type: none"> <li>• Ginger Ale, ½ cup</li> <li>• Canned Pears, ½ cup</li> </ul>	<ul style="list-style-type: none"> <li>• Skim Milk, ½ cup</li> <li>• Cornflakes, ½ cup</li> <li>• Sugar, 2 tsp</li> </ul>	<ul style="list-style-type: none"> <li>• Frozen Yogurt, ½ cup</li> <li>• Saltine Crackers, 6</li> </ul>	
<b>This Sample Diet Provides the Following</b>			
Calories	1343	Fat	35g
Protein	52g	Sodium	2639mg
Carbohydrates	206g	Potassium	1411mg

### STEP 3 FOOD GROUPS

Group	Recommend	Avoid
Milk & Milk Products	Skim milk, products made with skim milk, low-fat milk, low-fat yogurt, low-fat cheeses	Whole milk products, creams (sour, light, heavy, whipping), half & half
Soups	Fat-free consommé and bouillon, soups made from skim milk and fat-free broths containing pasta or noodles and vegetables are allowed	Soups made with cream, whole milk, or broths containing fat
Breads & Grains	Breads and cereals, cream of wheat, pasta, white rice, egg noodles, low-fat crackers	Oatmeal, whole grain rice, cereal and bread
Meat & Meat Substitutes	Eggs, peanut butter (maximum 2 tbsp/day), poultry, fish, lean ground beef	Fibrous meats (steaks, roasts, chops), dried beans, peas and lentils
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, brussel sprouts, cabbage, cauliflower, celery, corn, eggplant, onions, peas, peppers, pea pods, sauerkraut, turnips, water chestnuts, zucchini
Fruits	Fruit juices, canned fruits without skins (applesauce, peaches, pears)	All fresh and dried fruits, canned fruits with skins (apricots, cherries, blueberries, fruit cocktail, oranges, grapefruit, pineapple, plums, persimmons)
Fats & Oils	Any type of fat, but only in small amounts	None
Sweets & Desserts*	Hard candies, caramels, puddings and custards made from skim milk, frozen yogurt, fruit ice, gelatin, ice milk, jelly, honey, syrups	High-fat desserts (cakes, pies, cookies, pastries, ice cream), fruit preserves
Beverages	Gatorade*, soft drinks*, (sipped slowly throughout the day), coffee, tea, water (note: non-caloric beverages should be limited if patient cannot maintain adequate caloric intake)	All others, except allowed juices

\*Concentrated sweets

<b>SAMPLE MENU STEP 3</b>			
<b>Breakfast</b>	<b>Lunch</b>		<b>Dinner</b>
<ul style="list-style-type: none"> <li>• Skim Milk, ½ cup</li> <li>• Cream of Wheat, ½ cup</li> <li>• Sugar, 2 tsp</li> <li>• Orange Juice, ½ cup</li> <li>• White Toast, 1 slice</li> <li>• Margarine, 1 tsp</li> <li>• Jelly, 1 tbsp</li> </ul>	<ul style="list-style-type: none"> <li>• Tuna Fish, 2 oz</li> <li>• Low-fat Mayonnaise, 2 tbsp</li> <li>• White Bread, 2 slices</li> <li>• Canned Peaches, ½ cup</li> <li>• Gatorade, ½ cup</li> </ul>		<ul style="list-style-type: none"> <li>• Baked Chicken, 2 oz</li> <li>• White Rice, ½ cup</li> <li>• Cooked Beets, ½ cup</li> <li>• Dinner Roll, 1</li> <li>• Skim Milk, ½ cup</li> <li>• Margarine, 2 tsp</li> </ul>
<b>Morning Snack</b>	<b>Afternoon Snack</b>		<b>Evening Snack</b>
<ul style="list-style-type: none"> <li>• Low-fat Yogurt, ½ cup</li> <li>• Sprite, ½ cup</li> </ul>	<ul style="list-style-type: none"> <li>• Chocolate Pudding, ½ cup</li> <li>• Ginger Ale, ½ cup</li> </ul>		<ul style="list-style-type: none"> <li>• Ice Milk, ½ cup</li> <li>• Pretzels, 2</li> </ul>
<b>This Sample Diet Provides the Following</b>			
Calories	1822	Fat	42g
Protein	75g	Sodium	2334mg
Carbohydrates	286g	Potassium	2467mg