

Gastroparesis

What is gastroparesis (gas-tro-pear-ee-sis)?

Gastroparesis is a condition where food moves through your stomach slower than normal and takes longer to digest (breakdown).

What causes gastroparesis?

The cause of gastroparesis is not always clear, but it is believed that there might be damage to a nerve that controls stomach muscles. It can occur suddenly or as a result of:

- diabetes
 - stomach surgery or nerve injury such as after bariatric gastric surgery
 - medications, such as narcotics
 - ask your doctor if any of your medications slow down stomach emptying
 - nervous system diseases like Parkinson's Disease, Multiple Sclerosis, or Amyotrophic Lateral Sclerosis (ALS)
 - infection, such as viral gastroenteritis
 - certain cancer treatments
 - collagen vascular disorders such as scleroderma
 - lupus
 - hypothyroidism
 - gastroesophageal reflux disease
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What are the symptoms of gastroparesis?

Your symptoms may include:

- a feeling of fullness after a few bites
- belching or burping
- bloating or abdominal distension
- nausea and vomiting
- food or fluid from the stomach moving back into your mouth – this is called regurgitation or heartburn
- decreased appetite which may lead to weight loss and poor nutrition
- constipation

If you have diabetes, you may also have abnormal sugar (glucose) levels in your blood.

What are the complications of gastroparesis?

Complications of gastroparesis could include:

- weight loss
 - abdominal discomfort
 - bacterial overgrowth
 - food that stays in the stomach too long can start to ferment, causing bacteria to grow
 - bezoar
 - A bezoar is a mixture of food residues/materials that can accumulate or build up in the stomach and does not empty well. A bezoar can block food from going into the small intestine.
 - blood sugar fluctuations
 - For people with diabetes, blood sugars may be harder to control as food is digested at inconsistent times.
 - dehydration (not enough fluid in your body)
 - electrolyte imbalance
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How is gastroparesis treated?

- Taking medication to help:
 - Food move through your stomach
 - Reduce nausea and vomiting
- Changing your diet to help improve your symptoms and prevent poor nutrition.
- Controlling your blood sugar levels if you have diabetes.

What diet and lifestyle changes can I make to help control my symptoms?

To help improve your symptoms of gastroparesis:

- **Eat 6 or more small meals a day.** Larger meals take longer to digest and can make you feel full very quickly
 - **Chew foods well.** This helps your stomach digest food better. Avoid foods that are not easily chewed such as broccoli, corn, popcorn, nuts and seeds.
 - **Eat healthy foods first.** Choose foods with lots of nutrients before filling up on “empty calories” such as tea, coffee, water, pop and candies.
 - **Avoid lying down after a meal.** Stay sitting up for at least one hour after your meal. Going for a walk after your meal can also help the food move through your stomach faster.
 - **Choose foods that are lower in fibre.** Fibre is not digested and can stay in the stomach longer, slowing digestion. Fibre can also make you feel more full, making it difficult to eat enough food to get all of the nutrients you need. Cooking fruits and vegetables until soft can help you to digest them.
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What diet and lifestyle changes can I make to help control my symptoms? (continued)

- **Choose foods that are lower in fat.** Foods that are high in fat take longer to digest. Although fat may slow stomach emptying in some people, many can tolerate fat in the liquid form, such as fat in whole milk, milkshakes, smoothies and nutritional supplements. Avoid all fried, fatty or greasy foods.
 - **Change the texture of your food.** Liquids empty from the stomach faster and more easily than solids. If you cannot tolerate solid foods, then you may need minced, pureed or liquefied foods. Your dietitian will discuss the texture that is right for you.
 - **Limit your intake of alcohol.** Alcohol can result in delayed emptying of food out of the stomach.
 - **If you have diabetes, keep your blood sugar under control.** Uncontrolled blood sugars can change how your stomach empties food.
 - **Talk to your doctor or pharmacist about your medications.** Some medications can slow stomach emptying while others can help to improve your symptoms.
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What are some foods and medications I may want to avoid?

In general, you may want to avoid foods and medications high in fibre. Avoiding seeds, skins and membranes of fruits and vegetables, such as removing the skin from an apple or having applesauce, will decrease your fibre intake. Also, cooking vegetables well, until they are soft, will also make them easier to digest.

Foods high in fibre:

- legumes/dried beans such as chick peas, kidney beans and lentils
- high fibre breads and cereals
- nuts and seeds
- dried fruits
- popcorn
- raw fruits, like berries
- raw vegetables
- high fibre vegetables such as corn, peas, broccoli, brussel sprouts and cabbage

Medications high in fibre:

- fibre supplements including Metamucil, Benefibre and Prodiem

If you are told that you have a bezoar:

- Avoid foods that may cause a bezoar, such as figs, raisins, berries, apples, coconuts, persimmons, brussel sprouts, green beans, corn, legumes, potato skins, tomato skins, seeds and sauerkraut.
 - Avoid high fibre medications listed above.
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Stages of the Gastroparesis Diet

The Gastroparesis Diet will help you get enough nutrition and fluids when you are finding it hard to eat enough food. The diet consists of 3 stages:

Stage 1 - Liquids. Liquids leave the stomach quickly and prevent dehydration. Liquids can also provide you with salts and minerals that you need. You can follow this stage when you are nauseous and vomiting.

- Only follow Stage 1 for 2 to 3 days, as it will not meet all of your nutritional needs. Contact your doctor if you think you need to be at this stage for longer.

Food Group	Recommended Items	Items to Avoid
Milk and Alternatives	None	All
Vegetables	None	All
Fruits	Apple juice Grape juice Cranberry juice	All
Grain and Starches	Saltine crackers	All others
Meat and Alternatives	None	All
Fats and Oils	None	All
Beverages	Sports drinks (Gatorade, Powerade) and carbonated beverages (small amounts at a time) Boost Fruit beverage Fruit flavoured drinks Plain Tea, coffee	All others
Soups	Fat free bouillon	All others
Other/desserts	Flavoured gelatins such as Jello Popsicles	

Stage 2 – Mostly liquids and soft foods low in fat and fibre. Follow this diet when you are not vomiting. It includes a small amount of dietary fat. Fatty foods and oils should be avoided because they slow stomach emptying. Slowly introduce fats and track your body's response.

Food Group	Recommended	Avoid
Milk and Alternatives	Skim or 1% milk fat (MF) milk. Low fat soy milk, rice milk, almond milk Low-fat yogurt (0 to 2% MF fat) Frozen yogurt Low fat/fat free cottage cheese Fat free sour cream Buttermilk Evaporated milk (0 to 1% MF) Low fat cheeses with less than 15% MF in small amounts	Homogenized or 2% MF milk Regular soy milk Regular yogurt Ice cream Sour cream Cottage cheese with 2% MF or more Regular/full fat cheese products with 20% MF or more
Vegetables	Vegetable juice Well cooked soft vegetables (cauliflower, eggplant without skin, parsnips, rutabagas, turnip, bottled roasted red peppers, squash, beets, carrots, potatoes without skin, yams, mushrooms) Smooth tomato sauce	All raw vegetables Cooked vegetables with skins such as bean sprouts, beans such as green, wax and lima, peas, peppers, tomato seeds and skins, corn Stringy vegetables such as cabbage, sauerkraut, Brussels sprouts, celery, fiddleheads, sugar snap peas, okra, spinach, kale, swiss chard, bok choy, bamboo sprouts Fried vegetables Creamed vegetables Coleslaw Popcorn Olives
Fruits	Apple juice Cranberry juice Grape juice Prune juice Canned fruits without skins (applesauce, peaches, pears, apricots, mandarin oranges)	Citrus juices with pulp All fresh and dried fruits Canned fruits with skin

Food Group	Recommended	Avoid
Grains and Starches	White breads and rolls Refined cereals such as cream of wheat and Rice Krispies, Cheerios, Special K White pasta White rice and barley Low-fat crackers such as soda crackers Pretzels	Oatmeal High-fibre (over 5g fibre per serving), whole-grain breads and cereals Cereals containing nuts, seeds, coconut, dried fruits, granola mix Whole grain pasta Whole grain, brown and wild rice Tea biscuits Waffles, pancakes Sweet rolls Croissants Donuts Muffins Egg noodles
Meat and Alternatives	Eggs/egg whites Low fat egg substitutes Smooth low fat peanut butter (maximum 2 tablespoons a day)	Beef Poultry Fish Pork, bacon Legumes/dried beans such as chick peas, kidney beans and lentils Nuts and seeds Fibrous meats Sausage Bologna, salami Hot dogs Goose Duck Spare ribs Organ meats Fish packed in oil Crunchy peanut butter European frankfurters and other deli-made wieners/sausages with tough casings Deep fried meats
Fats and Oils	Any type of fat but in small quantities, limit to 3 tsp a day Fat free salad dressing Fat free gravy	None

Food Group	Recommended	Avoid
Beverages	Gatorade/carbonated beverages (small amounts at a time) Nutritional supplements Lemonade, Kool-Aid	Alcohol All others, except allowed juices
Soups	Fat-free bouillon Soups made with skim milk Fat free soups made with pasta/noodles Strained/pureed cream soups	Soups made from milk, cream, or broths containing fat
Sweets	Hard candies, gummy candies, jelly beans, marshmallows, caramels Puddings and custards made with 1% MF or skim milk Frozen yogurt Fruit ice/sorbets/sherbet Gelatin Ice milk Seedless jams and jellies Honey, syrups	High-fat desserts (cakes, pies, cookies, pastries, ice cream) Cookies with nuts/dry fruit
Other	Mustard, ketchup, vinegar, soy sauce, teriyaki sauce, hot sauce, barbeque sauce	

Stage 3: Solid foods low in fat and fibre. Allows you to have a little more fat than Stage 2, and also limits foods containing a lot of fibre.

Food Group	Recommended	Avoid
Milk and Alternatives	Same as Stage 2 plus: 2% MF, homogenized and chocolate milk Regular soy, rice, almond milk Milkshakes Eggnog Smoothies Kefir Buttermilk 1% or 2% MF cottage cheese Ice cream Fat free or 5% MF sour cream Evaporated milk (0 to 2% MF)	Regular cheese with >20% MF Regular sour cream Whipping cream (10 or 18% MF)

Food Group	Recommended Items	Items to Avoid
Vegetables	Same as Stage 2	Same as Stage 2
Fruits	Peeled fresh fruit such as banana, apple, pear, peaches, plums, melons Apple/cranberry/grape/prune juice Canned fruits without skins (applesauce, peaches, pears, apricots, mandarin oranges) All fruits and juices not listed in items to avoid	Fruits with skins, seeds and membranes such as: berries, pineapple, grapes, oranges, pomegranates Dried fruit such as coconut, figs, raisins, prunes, cranberries, apricots, currants, dates Citrus juices with pulp Canned fruits with skin such as cherries Avocado
Grains and Starches	Same as Stage 2 Egg and ramen noodles	Same as Stage 2
Meat and Alternatives	Eggs/egg whites Smooth peanut butter (maximum 2 tablespoons a day) Poultry with no skin Fish, shellfish Lean beef Pork Low fat deli meats Extra lean ground beef Lean ground chicken/turkey Canned fish in water Low fat deli meats Preparation: bake, broil, poach, BBQ	Fibrous meats Steaks Roasts Bacon Sausage Bologna, salami Hot dogs Goose Duck Spare ribs Organ meats Fish packed in oil Crunchy peanut butter Dried beans and peas Lentils Nuts and seeds European frankfurters and other deli-made wieners/sausages with tough casings Deep fried meats
Fats and Oils	Any type of fat but in small quantities Spray oils Fat free gravy Low fat mayonnaise	None

Food Group	Recommended Items	Items to Avoid
Beverages	Gatorade/soft drinks (small amounts at a time) Flavoured coffee Tea Hot chocolate Water, lemonade, Kool-Aid Nutritional supplements	Alcohol All others not listed in recommended items
Soups	Same as Stage 2 plus all soups made with all milks	Soups made with cream Broths containing fat
Sweets	Same as Stage 2 plus: Angel food cake Low fat cookies such as arrowroot, social tea, graham crackers	Same as Stage 2
Other	Same as Stage 2	

What do I do if my symptoms get worse?

- Try drinking nutritional supplements and pureed foods before you take liquids with small amounts of nutrients, like coffee, tea and pop.
- On days when your symptoms are worse, rest your stomach by taking fluids or pureed foods only (this does not have to be as strict as stage 1 of the gastroparesis diet, see list below). Small portions (around 1 cup) or having sips through out the day may help you to better tolerate them.

List of fluids and pureed foods:

- Broth, cream or pureed soups
- Juice (apple, cranberry, grape, prune)
- Sprite, gingerale
- Tomato juice/V8
- Milk
- Eggnog
- Kefir
- Yogurt
- Milkshakes, pudding, smoothies and custards
- Baby food
- Oral rehydration solutions, such as: Gastrolyte or Pedialyte
- Powerade/Gatorade

- Nutritional Supplements such as:
 - Carnation Breakfast Anytime
 - Boost
 - Boost Diabetic
 - Boost Fruit Beverage
 - Boost High Protein
 - Boost Plus Calories
 - Ensure
 - Ensure High Protein
 - Ensure Plus
 - Glucerna

How can I puree or “blenderize” my foods?

Pureed foods can sometimes be easier for your body to digest. Refer to the HHS “Pureed Diet” handout to learn about how to blenderize your foods.

Sample diet

The following is a sample diet for someone who is following stage 3 of the Gastroparesis Diet.

- **Breakfast:** 1 cup cream of wheat, 1 slice white toast and 1 tablespoon peanut butter, ½ cup skim milk, ½ cup juice
- **Snack:** 6 ounces low fat yogurt and ½ banana or 1 cup nutritional supplement
- **Lunch:** 1 cup pasta, 1 tablespoon fat-free parmesan cheese and 1 tablespoon low fat margarine, ½ cup applesauce, ½ cup skim milk or 4 ounces nutritional supplement
- **Or**
½ turkey sandwich with 1 Tbsp low fat mayonnaise with ½ cup chicken noodle soup, ½ cup applesauce, ½ cup skim milk
- **Snack:** ½ cup canned peaches and ¼ cup low-fat cottage cheese
- **Or**
smoothie with ½ cup Gatorade or carbonated beverage
- **Dinner:** 2 ounces skinless chicken or fish, ½ cup cooked squash and ½ cup cooked mashed potatoes with no skin, 1 tsp butter, ½ cup skim milk, ½ cup canned peaches
- **Snack:** 1 cup low-fat pudding or frozen yogurt, ½ cup carbonated beverage
- **Liquids:** vegetable juice, crystal light, water, fruit juice, skim or 1% milk

How do I read a food label?

Reading the Nutrition Facts table is the best way to find out how much fat and fibre a food has. Below is a Nutrition Facts table for Rice Krispies Cereal.

The amount listed is for the serving size given.

Remember, foods lower in fat and fibre might be easier for you to tolerate.

Nutrition Facts	
Per 1 cup (28 g)	
Amount	% Daily Value
Calories 110	
Fat 0 g	0%
Saturated 0 g + Trans 0 g	0%
Cholesterol 0 mg	0%
Sodium 190 mg	8%
Carbohydrate 25g	8%
Fibre 0 g	0%
Sugars 3 g	
Protein 2 g	
Vitamin A	0%
Vitamin C	0%