



November 2019

# National Diabetes Month

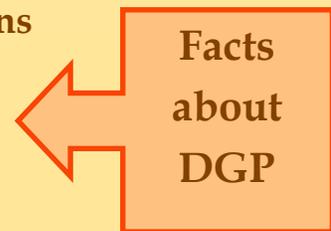
## Diabetes Related Gastroparesis

What is diabetes related gastroparesis?

- Diabetes related gastroparesis (DGP) is also known as delayed gastric emptying
- DGP is a complication of diabetes, mainly caused from diabetes-related neuropathy
- Diabetes-related neuropathy means damage to nerves and is one of the most common complication of diabetes
- DGP is a condition that affects the stomach muscles and prevents proper stomach emptying
- DGP can affect a person's digestion as food stays in the stomach longer than it should

- Diabetes affects over 30 million Americans
- About 60 - 70% of people with diabetes have mild to severe forms of nervous system damage
- DGP affects around 40% of people with type 1 diabetes and 30% of people with type 2 diabetes

Facts about DGP



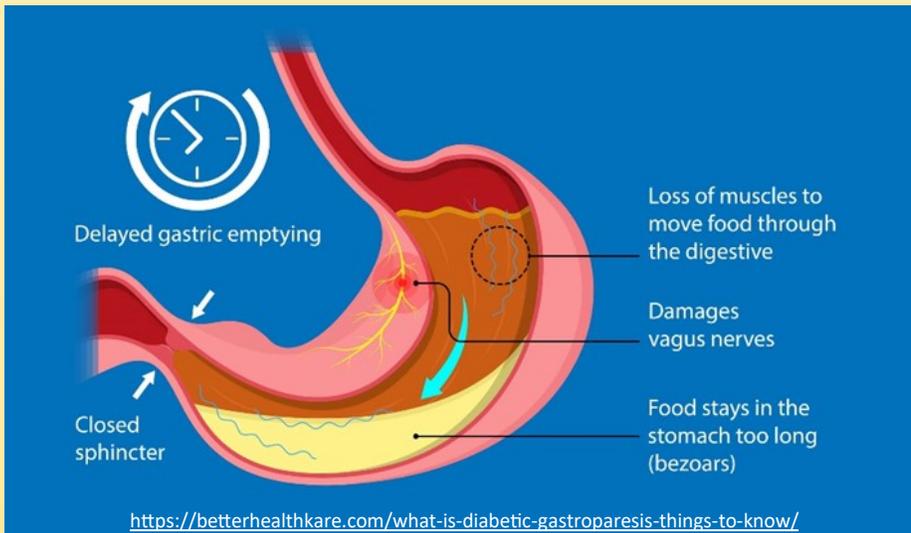
# Diabetes Related Gastroparesis

## Causes of DGP

Nerves are found throughout the entire human body, including the digestive tract. The vagus nerve controls the movement of food through the digestive tract. Diabetes-related neuropathy can damage the vagus nerve. This can lead to slowed digestion as food is now staying in the stomach longer than it should. In normal digestion, the stomach contracts to help break down food and move it into the small intestine. In DGP, the stomach contractions are disrupted and digestion is slowed.

## Symptoms

- Feeling full after eating little amounts of food
- Nausea
- Vomiting
- Heartburn
- Abdominal bloating



## Complications

When food stays in the stomach longer than normal, spoilage of the food can occur, resulting in bacteria growth. DPG can also make it difficult to control blood sugar levels as food can take awhile to empty or food may empty very quick. The unpredictability of the digestion of food with gastroparesis makes it difficult to know when and how much insulin to take.

# Diabetes Related Gastroparesis

## Treatment

There is no cure for DPG but there are treatment options to help with symptoms. Treatment of DGP target nutrition, hydration, symptom relief, and blood sugar management.

## Nutrition

- Eat smaller, more frequent meals (4-6 times per day), as large meals take longer to digest.
- Pay attention to the texture of food. Liquids and soft foods are easier to digest.
- Limit high fat food. Fat is hard for our bodies to digest
- Limit fiber. Fiber can be hard to digest.
- Eat and drink while sitting up to help digestion

## Foods to Limit

- Fruits with skin/pulp
- Raw vegetables (cooked vegetables may be tolerated better)
- Coconut
- Whole grain breads and cereals
- Brown rice
- High-fat desserts
- Nuts and seeds
- High fat meats and cheese
- Whole milk products
- Soups made with cream
- Carbonated beverages
- Legumes and beans
- Fermented foods like sauerkraut





## Nutritional Tips for DGP:

1. Eat smaller, more frequent meals (4-6 meals per day)
2. Avoid drinking with meals in order to not fill up on liquid
3. Try pureed or semi-liquid foods
4. Eat lower fiber foods
5. Choose low-fat food and limit how much fat is in a meal
6. Eat and drink while sitting up
7. Try to be more active after eating
8. Chew foods well to help with digestion
9. Avoid alcohol
10. Exercise more often

For more information please visit:

- American Diabetes Association  
(Diabetes.org)
  - National Institute of Health  
(<https://www.niddk.nih.gov/health-information/diabetes>)
  - Centers for Disease Control  
(<https://www.cdc.gov/diabetes/>)
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# Simple Yet Delicious Recipes:

## Banana Protein Smoothie

- 1/2 frozen banana
- 1/2 cup unsweetened vanilla almond milk
- 1 Tbsp. peanut butter
- Blend and enjoy!
- KCAL: 160 FAT: 9.5g
- CHO: 18g PRO: 5g



## Stir Fry

- 1/2 cup cooked white rice
- 1/2 cup cooked moist chicken breast
- 1/2 cup cooked and shredded carrots and zucchini
- Drizzle with teriyaki sauce
- KCAL: 181 FAT: <1g
- CHO: 14g PRO: 25g



## Cauliflower Soup

- 4 cups cauliflower
- 3 cups chicken stock
- 1 Tbsp. extra virgin olive oil
- 2 garlic cloves, minced
- 1/2 cup parmesan cheese (Optional)
- Makes approx. 3 servings

Per serving with parmesan cheese:

- KCAL: 164 FAT: 9g
- CHO: 7.5g PRO: 11g

Heat oil in pot on medium heat. Add garlic and sauté until soft. Add cauliflower & chicken stock. Cook cauliflower until it is tender (~15 minutes). Using a blender, puree cauliflower until it reaches a desired consistency.



## Grain Free Pumpkin Pancakes

- 2 eggs ( 1 egg + 2 whites if wanting to lower the fat content)
- 1/4 cup canned pumpkin
- 1/2 tsp pure vanilla extract
- 1/2 tsp pumpkin pie spice + 1/2 tsp cinnamon
- 1/8 tsp salt + 1/8 tsp baking soda
- Coconut oil
- 1 Tbsp. maple syrup (optional)

For each pancake (yield 2-4)

- KCAL: 81 FAT: 4.5g
- CHO: 1.5g PRO: 6g

Whisk eggs, pumpkin, vanilla, and maple syrup together. Sift spices and baking soda into the wet ingredients. Melt a small amount of coconut oil over medium heat and allow it to lightly spread over the pan. Spoon batter in skillet, when bubbles appear, flip once to finish cooking.



# How to make a **HEALTHY SNACK**

Whether or not you have diabetes, you probably like having a snack now and then. The goal is to choose healthy snacks. The snacks listed here may cause a small increase in blood sugar, but are *not* to be used to treat a low blood sugar problem.

To build your own snack, choose one (1) carbohydrate food and one (1) protein or healthy-fat food from each box.

**Measures:**  
oz. = ounce  
tsp. = teaspoon  
tbsp. = tablespoon



**HEALTHY  
SNACK**

## CARBOHYDRATES (CARBS)

- 1 small apple
- 1 small sweet potato
- 1 small banana
- ½ cup of cooked plain oatmeal
- 1 small pear
- 1¼ cups of strawberries
- ¾ cup of blueberries
- 3 graham cracker squares
- 5 small whole-wheat crackers
- 1 slice of bread with 3 or more grams of fiber
- ¾ cup of unsweetened dry cereal



## PROTEINS AND HEALTHY FATS

- 1 tbsp. of peanut butter, almonds, or cashews
- 1 to 2 ounces (oz.) of chicken salad
- 1 to 2 oz. of skinned chicken
- 1 to 2 oz. of low-sodium turkey
- 2 oz. of tuna
- 1 hard-boiled egg
- 4 oz. of low-fat cottage cheese
- 1 string cheese or 1 slice of Swiss cheese
- 10 unsalted almonds or peanuts
- ¼ avocado
- 2 tbsp. of hummus
- 8 oz. glass of low-fat milk
- 6 oz. of low-fat or fat-free yogurt

**Note:** Always check with your doctor or diabetes educator before you make any change in your diabetes meal plan.

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