

# Using Food to Manage Lower GI Symptoms Related to Cancer Treatment



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# Side Effects of Treatment

- Nutrition-related side effects of cancer and cancer treatments don't happen to everyone, but they are very common
- A Registered Dietitian may be one of your best sources for information about your diet and how to manage these side effects
- Cancer and cancer treatments can change the way you eat, and affect the way your body tolerates certain foods
- It's important to focus on eating well before starting treatment

# Why Nutrition is Important

- Keep up your strength and energy
- Weight maintenance
- Keep up nutrient stores
- Lower your risk of infection
- Heal and recover faster
- Feel better



# Constipation

- Can be caused by changes in eating, pain medication, and less activity
- Focus on high fiber foods
- Drink plenty of fluids
- Increase physical activity if possible



# What You Can Do

- Eat on a consistent schedule
- Drink at least 8 cups of water daily
- Drink more hot beverages
- Talk to your Doctor about an OTC medication
- Have more fiber
- Don't use a straw
- Try not to talk while eating

# Constipation

- Fiber is a carbohydrate that our bodies cannot digest
- Soluble fiber: Dissolves in water, regulates blood glucose levels, lowers cholesterol
- Insoluble fiber: Does not dissolve in water, moves food through the GI tract, assist in keeping the body “regular”
- General recommendations: 25 grams of fiber per day
- Major sources of fiber include fruits, vegetables, whole grains, and dried beans

## Insoluble Fiber

- Whole wheat
- Whole grains
- Wheat bran
- Seeds and nuts
- Couscous
- Brown rice
- Bulgur wheat
- Vegetables
- Fruit

## Soluble Fiber

- Oatmeal
- Lentils
- Applesauce
- Oranges
- Pears
- Strawberries
- White rice
- Potatoes
- Cucumbers
- Canned fruit

# Fiber in Foods

Food	Serving Size	Dietary Fiber (in grams)
Bran cereals	½ cup	Varies, 3-13
Whole wheat bread	1 slice	2-4
Brown Rice	½ cup	6
Kidney beans	½ cup	8
Broccoli	½ cup	4
Corn	½ cup	5
Carrots	½ cup	2
Apple with skin	1 medium	4
Pear with skin	1 medium	5
Prunes	3	3
Strawberries	½ cup	3
Banana	1 medium	2



# What you can do

- Limit gas causing foods and beverages
  - Carbonated drinks
  - Broccoli
  - Cabbage
  - Dried beans
  - Peas
  - Onions
  - Gum
  - Straws
- Consult your Doctor if you haven't had a bowel movement for 3 or more days

# Recipes for Constipation

## Apple & Prune Sauce

- Blend together 1/3 cup unprocessed bran, 1/3 cup apple sauce, 1/3 cup mashed, stewed prunes
- Take 1-2 tablespoons of this mixture before bedtime and drink 8 ounces of water
- Note: you must drink the water

## Corn Salsa

- 3 cups corn or 6 fresh ears
- 1 1/2 cup diced onion
- 3/4 cup chopped parsley
- 3 tbsp lime juice
- 2 tbsp olive oil

Combine all ingredients in a medium bowl. Season with salt and pepper to taste. Serve cold or room temperature with your favorite chip!

# Diarrhea

- Treatment and medications may cause more frequent, loose bowel movements
- This can lead to dehydration and malabsorption of vitamins, minerals, and water
- Drink fluids often to prevent dehydrations – water, ginger ale, sports drinks
- Drink at least one cup of liquid after each loose bowel movement
- Eat small, frequent meals
- Choose foods high in sodium and potassium
- Eat foods high in pectin

# Diarrhea

- Follow a low fiber diarrhea
  - No more than 10 grams each day
  - Stimulates the bowel less
- Eat more of these:
    - Chicken
    - Fish
    - Pudding
    - Mashed potatoes
    - White rice
    - Smooth peanut butter
    - White bread
    - Bananas
    - Applesauce
    - Canned Fruit
    - Cream of wheat

# Diarrhea

- Foods and beverages to avoid
  - High fiber
  - Sugary beverages
  - Beverages with extreme temperatures
  - Fatty, fried foods
  - Milk products
  - Alcohol
  - Spicy food
  - Caffeine
  - Sugar free products
  - Apple juice



# Diarrhea

- Drink only clear liquids for 12-14 hours after experiencing sudden diarrhea
  - Plain Jell-O
  - Sports drinks
  - Juices
  - Fruit ices
  - Popsicles
  - Strained lemonade
  - Clear carbonated drinks
  - Weak tea
  - Clear, fat free broth/bouillon/consommé
  - Strained vegetable broth
- If unable to tolerate food within 24 hours, contact your Doctor

# Low Fiber/Bland Diet

- Plain crackers
- White bread
- White rice, noodles, potatoes
- All juices
- Instant hot cereal, refined cereals
- Canned, peeled fruits and vegetables
- Lean beef, fish, skinless chicken or turkey
- Plain puddings, custards
- Milk shakes, frozen yogurt, ice cream, milk
- Cream soups

# Recipes for Diarrhea: Squash Crostini

- Ingredients:

- 1 small butternut squash, halved lengthwise and seeded
- ½ tbsp extra virgin olive oil
- 1 ½ cups chopped shallots
- ½ tsp salt, ½ tsp pepper
- 1 baguette, cut into slices
- 3 tbsp almond butter



- Directions:

- Preheat oven to 350 degrees. Arrange squash on a greased baking sheet, cut sides down, and bake until tender. About 45 minutes.
- Set aside to let cool then transfer 1 ½ cups of the flesh to a food processor.
- Heat oil in a large skillet over medium-high heat. Add shallots, salt, pepper, and cook until golden (about 5 minutes).
- Brush bread all over with oil, arrange on a baking sheet and toast in the oven. Flip halfway through until just golden and crisp, 8-10 minutes total.
- Add shallots and almond butter to food processor with squash and puree until smooth. Spread over warm crostini and serve



# Recipes for Diarrhea: Carrot Lemon Apple Juice

- Ingredients:
- 4 medium carrots
- ½ medium lemon
- 1 apple
- 1 small, 2 in wedge red cabbage
- 1 in round piece fresh ginger
- Directions
  - Put all ingredients through a juicer. Drink and enjoy



# Recipes for Diarrhea: Blueberry Granola Bar

## • Ingredients:

- ½ cup honey
- ¼ cup firmly packed brown sugar
- 3 tbsp. canola oil
- 1 ½ tsp ground cinnamon
- 1 ½ cups quick-cooking oats
- 2 cups fresh blueberries



## • Directions:

- Preheat oven to 350 degrees. Lightly grease a 9x9 in. square pan.
- In a medium sized saucepan, combine honey, brown sugar, oil, and cinnamon. Bring to a boil.
- Continue boiling for 2 minutes – do not stir.
- In a large mixing bowl, combine oats and blueberries.
- Stir in honey mixture until thoroughly blended. Spring into the prepared baking pan, gently pressing mixture flat.
- Bake until lightly browned, about 40 minutes.
- Cool completely in a pan on a wire rack. Cut into bars.

# Lactose Intolerance

- You may be lactose intolerant if your body has difficulty digesting and absorbing the sugar in milk, called lactose.
- Symptoms include gas, cramps, and diarrhea
- May be caused by radiation therapy to the abdomen



# Label Reading Tips

- Butter
- Buttermilk
- Cheese
- Cream
- Chocolate Milk
- Powdered Milk
- Evaporated Milk
- Ice cream
- Low-fat milk
- Margarine
- Milk chocolate
- Sherbet
- Sweetened Condensed Milk
- Whey
- Yogurt

# Label Reading Tips

- These foods may contain lactose
  - Lunchmeats
  - Hotdogs
  - Baked goods
  - Instant soups
  - Beverage mixes
  - Margarine
  - Salad dressings
  - Candies
  - Pancake and mix



# Nondairy Calcium Choices

- Sardines
- Canned Salmon
- Tofu
- Shellfish
- Turnip Greens
- Collards
- Kale
- Beans
- Broccoli
- Calcium fortified OJ
- Soy Milk
- Almonds



# Managing Lactose Intolerance

- Choose lactose-free or low-lactose milk products
- Milk alternatives: Soy milk, rice milk, almond milk
- Milk products may be well tolerated (yogurt, cheese)
- Talk to your doctor about including a lactase tablet into your diet

# Tips for Weight Loss

- Weight loss may come from the cancer itself or from side effects
- Don't always wait to feel hungry, eat on a schedule
- Small, frequent meals
- Choose high calorie, high protein
- High calorie beverages
- Be active if you can
- Start with adding 250 calories daily




# Tips for Weight Loss

- Eat what works for you
- Consider liquid nutritional products
- Powdered milk
- Keep snacks around
  - Cheese and crackers
  - Cottage cheese and fruit
  - Hard-boiled eggs
  - Nuts/seeds



# More Recipes

Recipe:	
Ingredients	Directions



# Peanut Butter Snack Spread

- **Ingredients**

- 1 tablespoon nonfat instant dry milk
- 1 tablespoon honey
- 1 teaspoon water
- 5 tablespoons smooth peanut butter
- 1 teaspoon vanilla extract



- **Directions**

- Combine dry milk, water, and vanilla, and stir to moisten. Add honey and peanut butter, and stir slowly until blended.
- Spread on crackers.
- Mixture also can be formed into balls, chilled, and eaten as candy.
- Keeps well in a refrigerator, but is hard to spread when cold.

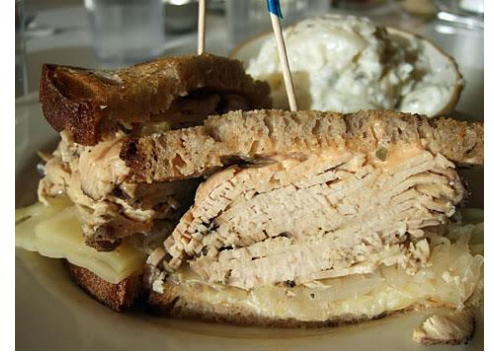
# Turkey Reuben

- **Ingredients**

- 8 slices dark pumpernickel bread
- 8 ounces turkey breast
- $\frac{3}{4}$  cup sauerkraut
- 8  $\frac{1}{2}$  ounce Swiss cheese (for lactose free diet, choose lactose free cheese)
- 1 tsp caraway seeds
- Cooking spray
- 4 Tbsp Thousand Island dressing, divided

- **Directions**

- Spread dressing on one side of each slice of the bread. Top 4 slices of bread with one slice of cheese each. Top cheese with turkey breast, sauerkraut, caraway seeds and a second piece of cheese.
- Cover with a second piece of bread.
- Heat a nonstick skillet to med-high; lightly coat with cooking spray.
- Place sandwich in pan. Cook 1 minute.
- Spray top side of sandwich, flip and cook an additional minute until crispy and cheese is melted. Cool slightly and cut in half.



# Cinnamon Hot Chocolate

- **Ingredients**

- Mini marshmallows
- 4 cinnamon sticks (1 per mug)
- 2 ounces semisweet chocolate, about  $\frac{1}{3}$  cup of chocolate
- $\frac{1}{4}$  cup cocoa powder
- $\frac{1}{4}$  cup sugar
- 4 cups milk



- **Directions**

- Combine the chocolate, milk and cocoa powder in a saucepan and heat over medium-high heat. Whisk until the mixture comes to a boil and the chocolate is dissolved.
- Ladle the hot chocolate into mugs and stir with cinnamon sticks to add a touch of cinnamon flavor.
- Top each mug with mini marshmallows to make it fancy!
- Per Serving: (without marshmallows) 217 calories, 5g fat (3g saturated), 37g carbs, 3g fiber, 10g protein, 129mg sodium

# Baked Sweet Potato Wedges

- **Ingredients**

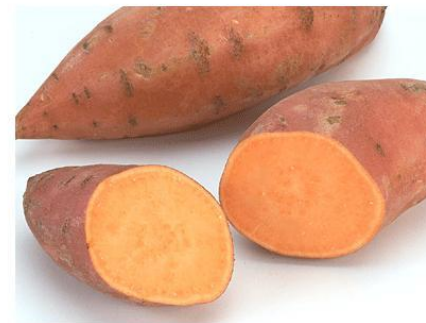
- Cooking spray
- 1 tsp paprika
- 1 Tbsp brown sugar
- 4 large sweet potatoes, scrubbed, cut lengthwise into  $\frac{3}{4}$  inch wedges
- 1 tsp garlic salt
- 1 tsp cinnamon
- Dash of cayenne pepper (optional)

- **Did you know?**

- Sweet potatoes pack a powerful vitamin A punch. 1 medium sweet potato provides 520% of your recommended daily allowance.

- **Directions**

- Preheat oven to 400 degrees.
- Lightly spray cooking spray on a baking dish or cast-iron skillet. Spray potato wedges with cooking spray and toss together with all the spices in a bowl.
- Place potatoes in a single layer in the baking dish or skillet. Bake for 20 minutes. Turn over and bake an additional 20 minutes.



# Online Resources

- [www.cancer.org](http://www.cancer.org)
- [www.eatright.org](http://www.eatright.org)
- [www.aicr.org](http://www.aicr.org)
- [www.oncolink.org](http://www.oncolink.org)
- *Eating Hints*, National Cancer Institute. U.S. Department of Health and Human Services. April 2011. ([www.cancer.gov](http://www.cancer.gov))