

# Medical Nutrition Therapy in Lower Gastrointestinal Diseases: Diverticular Disease

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فوق دکترا و متخصص تغذیه ورژیم درمانی

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## Outline

Intestine Structure & function

Gut Microbiome & dysbiosis

Celiac disease & gluten related disorders

Inflammatory bowel disease

**Ulcerative Colitis** 

Crohn's disease

**Irritable Bowel Disease** 

**Diverticular Diseases** 

**Diverticulosis** 

**Diverticulitis** 

#### Diverticular Diseases

- Diverticulosis: Having diverticula which are small pockets that can develop on the inside of the colon
- Common in elder adult
- Diverticulitis: Inflammation in the diverticula
- Uncommon, 4% of population
- Often occur in the last part of the colon or sigmoid colon
- Feeling pain in the lower left quadrant of the abdomen
- Western diet has long been implicated in the etiology
- Low fiber diet can lead to constipation and straining during defecation

## Types of Diverticulitis

- Acute: comes on suddenly and goes away shortly with treatment
  - some people develop recurring (repeat) episodes
- Chronic: chronic inflammation

Complicated/uncomplicated

# Possible Complications of Diverticulitis

- Gastrointestinal bleeding: anemia
- Intestinal obstruction: causes permanent narrowing
- **Fistulas:** an inappropriate tunnel between the two organs (small intestine, bladder or vagina)
- Bladder inflammation: Diverticulitis that's close to bladder
- Abscess: a pocket of infected pus that may need to be drained
- Gastrointestinal perforation: risk of peritonitis and sepsis

# Symptoms of Diverticulitis

- Abdominal pain (often severe)
- Distended abdomen or palpable colon Fever
- Nausea and vomiting
- Rectal bleeding
- Constipation
- Diarrhea (less common)

## Treatment of Diverticulitis

• IV medication: antibiotics or antivirals through an IV line in some cases analgesics

• Blood transfusion: Bleeding

• Endoscopic procedures: colonoscopy or sigmoidoscopy

• **Surgery**: treating an abscess, persistent bleed, perforation (tear) or fistula, removing a problematic section of the bowel (colectomy)

# Medical Nutrition Therapy in Diverticulitis

During acute diverticulitis depending on severity:

- NPO in hospitalized patients
- A clear liquid diet
- Avoiding solid foods 2-5 days
- Soft low-fiber diet for 1 month
- Probiotics and prebiotics

# Medical Nutrition Therapy in Diverticulosis

#### After diverticulitis has subsided

- Gradual increase in daily fiber intake to DRI
- Adequate daily intake of fluid
- Probiotic supplement
- NOT avoid seeds and nuts for the possibility of getting stuck in a diverticulum and causing diverticulitis
- Seeds and nuts are great sources of fiber and plant-based protein, and they tend to appear in healthy meals

#### **Assessment**

- Decrease in appetite and food intake
- Abdominal pain, nausea, vomiting, fever
- Diet Hx (Fiber intake)
- Lab value: H/H

#### **Nutrition diagnosis**

Food and nutrition knowledge deficit RT new Dx, AEB diet Hx

#### Intervention

- Advance from NPO to low-fiber
- After discharge gradual fiber increase to DRI
- Adequate fluid intake
- Probiotic supplement

#### **Monitoring and Evaluation**

- Fiber intake
- Lab values for specific nutrients
- Control of GI symptoms

#### **Cooking Tips to Get More Fiber**

The following tips will help you get more fiber:



- Leave skins on fruits and vegetables.
- Quickly steam vegetables so that they remain colorful and crunchy.
- When baking, choose recipes that use whole grain flour instead of white flour. In many recipes that use white flour, you can replace half with whole wheat flour.
- Add small amounts of wheat germ, wheat bran, or rice bran to foods you cook.
- Try brown rice. One cup of brown rice has 3.5 grams of fiber compared to 1 cup of white rice, which has only 1 gram of fiber.
  - Brown rice and many other grains taste best after they are "fluffed up." Cook grains until tender, then gently stir with a fork. Uncover and allow to sit for 5 to 10 minutes.
  - Consider using a rice cooker. It is an easy way to prepare rice.
- Add dried beans and peas to recipes. These can be used in salads, soups, dips, and spreads.
- Add raisins, grated carrots, or chopped apple or pear to salads, cereal, or bread and muffin recipes.
- Use beans, wheat germ, oats, or wheat bran to replace some of the meat in recipes such as meatloaf or lasagna.
- Add a variety of grains to soups. Try barley, brown rice, or whole wheat pasta.



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