The Right Diet for IBD

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The Right Diet for IBD

Topics:

• Impact of IBD on nutrition
• Overview of diets often used by IBD patients
• Eating well with IBD
IMPACT OF IBD ON NUTRITION
Is Food the Friend or Enemy?

- Many people with IBD cannot tolerate certain foods when feeling well and/or during flares.

- Although associations have been and are being investigated, no conclusive evidence that diet can cause or cure IBD.

- Nutrition and diet are important to IBD management.
What You Eat is Important

- **Diet** is the actual food that is consumed (“What you eat”)

- **Nutrition** refers to properly absorbing food and staying healthy (“How you eat”)

- IBD is not related to food **allergies** (immune response) but symptoms may be worsened by food **intolerance** (non-immune response)

- Diet may affect the symptoms of IBD, but not the inflammation

- Proper diet and nutrition may improve symptoms of IBD and overall wellness
The Effect of IBD on Digestion

- **Crohn’s disease (CD)**
  - If small intestine is affected, digestion and absorption of nutrients may be affected
  - Poor absorption and inflammation in colon may also cause diarrhea

- **Ulcerative colitis (UC)**
  - Small intestine works normally
  - Inflamed colon causes urgency and does not reabsorb water properly, resulting in diarrhea
The Effect of IBD on Nutrition

IBD patients are at an increased risk for:

- Nutritional deficiencies
- Weight loss
- Iron deficiency
- Folic acid deficiency
- Vitamin B12 deficiency
- Mineral/electrolyte deficiencies
- Dehydration
- Osteoporosis
- Growth retardation in children

The Effect of IBD on Growth

• Growth often affected in children with IBD
  – More common in CD than in UC
  – Seen both before and after disease is diagnosed

• Decreased rate of growth and height
  – Adult height compromised
  – CD: 32-88%
  – UC: 9-34%

• Growth is a good marker for disease activity
Bone Health in Children & Adults

• Decreased bone mineral density (amount of mineral in bone) is common in people with IBD due to:
  – Poor calcium absorption/intake (i.e., limited dairy and dark leafy vegetable intake)
  – Vitamin D deficiency
  – Decreased physical activity
  – Inflammation

• Peak bone mass occurs by age 30-32

• Steroid use (repeated, and or prolonged more than 6 weeks) increases short- and long-term risk

Heller A.
Nutritional evaluation may include:

- Patient history
- Physical exam and laboratory studies:
  - Height and weight
  - Blood count (CBC)
  - Biochemical profile, magnesium
  - Inflammatory markers (CRP, ESR)
  - Serum iron studies, including ferritin
  - Albumin and pre-albumin
  - Folic acid/Vitamin B12
  - 25 OH vitamin D
  - Bone density testing (DEXA) – if concerned about low bone density

Adult IBD Nutritional Goals

• Maintaining an adequate intake of protein, carbohydrates, and fat, as well as vitamins and minerals, is necessary for good health
  – Steady weight

• Communicating regularly with your healthcare team is important!
  – Identify deficiencies or problems in advance
  – After surgery, there may be different needs
  – People with j-pouches and ostomies may have different needs
Principles of Good Nutrition

Maintaining good nutrition is key to:
- Medications being more effective
- Healing, immunity, and energy levels
- Preventing or minimizing GI symptoms and normalizing bowel function
OVERVIEW OF DIETS USED
Is There a Special Diet for Patients With IBD?

**NO, THERE AREN’T ANY SPECIAL DIETS FOR IBD**

- Some diets may be used to help identify trigger foods or relieve symptoms
- Several diets advertised specifically for managing IBD inflammation
  - Many claims are supported by a small number of subjects
  - Most have not been proven scientifically
  - Benefits have not been confirmed in formal studies
## Diets That May be Prescribed

<table>
<thead>
<tr>
<th>Diet</th>
<th>Description</th>
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<tbody>
<tr>
<td>Elimination Diet</td>
<td>Keeping a food and symptoms diary over several weeks to help match symptoms to “problem foods.”</td>
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<tr>
<td>Low-fiber with Low-residue Diet</td>
<td>Minimizes the intake of foods that add bulk residue to stool (e.g., raw fruits, vegetables, seeds, nuts). Often used in patients with strictures or during flares. May be restricted in certain vitamins, minerals, and antioxidants. Needs monitoring.</td>
</tr>
<tr>
<td>Total Bowel Rest</td>
<td>Period of complete bowel rest during which patients are nourished with fluids delivered intravenously. May be useful short term with medication. May be used to treat short bowel syndrome.</td>
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### Other Diets

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<tr>
<td>Gluten-free Diet</td>
<td>Excludes grains that contain the protein gluten. Used primarily in patients with celiac disease. Decreases complex carbohydrates which may affect bowel function.</td>
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<tr>
<td>Clear Liquid Diet</td>
<td>Period of bowel rest during which patients get nourishment from clear liquids. Considered nutritionally inadequate even with clear liquid supplements.</td>
</tr>
<tr>
<td>Elemental Diet</td>
<td>Consists of nutrients in their simplest form. High in carbohydrates, low in fats. Used in Europe as primary treatment for CD, but not considered as good as other treatments.</td>
</tr>
<tr>
<td>FODMAPs</td>
<td>Acronym for Fermentable, Oligo-, Di- and Mono-saccharides, and Polyols. Diet minimizes consumption of these fermentable carbohydrates to manage GI symptoms, including diarrhea, gas, and bloating. More commonly used for IBS.</td>
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Heller A; Scarlata K. *Today’s Dietitian*. 2010.
# Popular Diets

<table>
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<tr>
<td>The Specific Carbohydrate Diet™</td>
<td>Reducing poorly digestible carbohydrates to lessen symptoms of gas, cramps, and diarrhea. Consists mainly of meats, vegetables, oils, honey.</td>
</tr>
<tr>
<td>South Beach Diet™ and Atkins Diet™</td>
<td>Both South Beach and Atkins diets restrict carbohydrates. Very strict diet at beginning followed by long-term eating plan. Decreases complex carbohydrates which may affect bowel function.</td>
</tr>
<tr>
<td>The Maker’s Diet</td>
<td>Focuses on four components of total health- physical, mental, spiritual, and emotional. Consists of a phased approach. Recommended foods are unprocessed, unrefined, and untreated with pesticides or hormones.</td>
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</table>

*Note: none of these diets have been studied with scientific or clinical rigor to prove they have a direct benefit for IBD patients.*
Enteral Nutrition

Provides support for deficiencies in calories and/or macro- and micronutrients in the form of a **liquid supplement**.

- Administered through
  - Nasogastric tube (NG tube) from nose to stomach
  - Gastrostomy tube (G-tube) from abdominal wall to stomach
- Helpful for children with IBD to ensure adequate nutrition when:
  - Appetite is poor
  - Concerns about growth
  - Complications in gaining weight
- Tube feedings can be given at night
- Oral supplements (e.g., Ensure®) can be useful but do not require tube feedings
Parenteral Nutrition

Delivered through catheter placed into a large blood vessel

- More complications than enteral nutrition
- Requires specialized training to administer
- Rarely necessary
Diet Research

- Research studies on the relationship between diet, nutrition, and IBD are limited

- Most studies are small, resulting in anecdotal outcomes

- Diet may have impact on disease, but research has been inadequate to show how
  - Different mechanisms proposed: effect on immune system, gut bacteria

2011 review article showed associations between dietary intake and risk of IBD

**Fats and Meats**
- High dietary intakes associated with an *increased* risk of IBD

**Fiber and Fruits**
- High dietary intakes were associated with *decreased* risk of CD

**Vegetables**
- High dietary intake was associated with *decreased* risk of UC

→ **Take-home points**
- Limitations with review (different studies, majority were retrospective)
- No particular foods, but component common to many foods may have a role
- Studies did not explore role of diet on current disease activity

## Key Messages

<table>
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<th>Diet Has Not Been Shown to:</th>
<th>Diet Can</th>
<th>Diet Should be</th>
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<tbody>
<tr>
<td>• Cause IBD</td>
<td>• Help symptoms while disease is being treated in other ways</td>
<td>• Individualized based on:</td>
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<tr>
<td>• Prevent IBD</td>
<td>• Improve nutritional status and overall wellness</td>
<td>1. Which disease you have (CD vs. UC)</td>
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<tr>
<td>• Provide sustainable disease control alone without</td>
<td></td>
<td>2. What part of intestine is affected</td>
</tr>
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<td>the help of maintenance therapy</td>
<td></td>
<td>3. Disease activity (remission vs. flare)</td>
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<td></td>
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<td>4. Individual caloric and nutritional needs</td>
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EATING WELL WITH IBD
General Principles

- People with IBD should maintain as diverse and nutrient-rich diet as they can
- When experiencing a flare, you may need to avoid foods that worsen symptoms
- Be flexible and focus on what you can eat
  - Follow your experience, and keep track of foods that trigger symptoms
- USDA site (www.choosemyplate.gov) has general recommendations on healthy eating, and sample meal plans

Nutrition Basics

Macronutrients

– Carbohydrates
  • Provide energy
  • Simple: digested quickly (e.g., sugar, honey, lactose)
  • Complex: longer to digest (e.g., starches, fiber in vegetables, legumes, grains)

– Protein
  • Provide “building blocks” for bones, muscles, cartilage, skin, and blood, as well as enzymes and hormones
  • May need more when experiencing inflammation or recovering from inflammation

– Fat
  • Often viewed as bad, but has important role in providing energy and essential fatty acids; needed to absorb some vitamins
  • Saturated, monounsaturated, polyunsaturated

Kane S. IBD Self-Management. 2010; Roscher B. How to Cook for Crohn’s and Colitis. 2007; USDA. choosemyplate.gov.
Nutrition Basics

Micronutrients

– Vitamins
  • Substances that the body cannot manufacture
  • Necessary for a variety of biochemical processes
  • Body must obtain them, mostly from animal sources
  • Fat-soluble (A,D,E,K) and water-soluble (B vitamins, folic acid, vitamin C)

– Minerals
  • Elements that do not form chains
  • Necessary for a variety of biochemical processes
  • Include sodium, potassium, iron, magnesium, calcium, zinc

**Water: The Forgotten Nutrient**

- Fluid intake essential for people with IBD
- Average person should ingest 64 oz of water per day or 8 (8 oz) glasses per day
  - Does not include alcohol or caffeine
- Diarrhea can cause dehydration

**Other options for keeping hydrated**
- Oral rehydration solution (e.g., Pedialyte®)
- Water-diluted sports drinks or juices
  - Dilution prevents excessive sugar intake
- Water with electrolytes

**Avoid caffeinated or carbonated beverages**

Vegetables

When experiencing a flare:

• Cooked, pureed, or peeled vegetables may be better tolerated
• Select vegetables that are easier to digest (e.g., asparagus, potatoes)
• Avoid vegetables that are gas-producing or have a tough skin (e.g., broccoli, Brussels sprouts)
• Add vegetable stock to rice or pasta for additional nutrients

Heller A. *Eating Right with IBD.* 2004; Dalessandro T. *What To Eat With IBD.* 2006.
Fruits

When experiencing a flare:

• Cooked, pureed, canned, or peeled fruit may be better tolerated

• Select fruits that are easier to digest and have less insoluble fiber (e.g., applesauce or melon)

• Avoid fruits with high fiber content (e.g., oranges, dried fruit such as raisins)

Carbohydrates

When experiencing a flare:

- Carbohydrates that are more refined with less insoluble fiber may be better tolerated
  - Examples: oatmeal, potato, sourdough, and French breads

- Avoid carbohydrates with more insoluble fiber, such as grains with seeds and nuts

Protein

- Protein needs may be greater during inflammation

**When experiencing a flare:**

- Lean sources of protein may be better tolerated
  - Excess fat can lead to poor absorption and may make symptoms worse
  - Examples: fish (salmon, halibut, flounder, swordfish), chicken, eggs, and tofu
- Try smooth nut butters (peanut, almond, cashew)
- Avoid fatty, fried, or highly processed meats, as well as nuts and seeds

World Gastroenterology Organization (WGO) clinical practice guidelines for IBD concerning diet.

- During disease activity, decrease the amount of fiber.
- Dairy products can be maintained unless not tolerated.
- A high-residue diet may be indicated in cases of ulcerative proctitis (disease limited to rectum where constipation is more of a problem).
- Limited data suggest that reducing dietary fermentable oligosaccharides, disaccharides, and monosaccharides and polyols (FODMAPs) may reduce symptoms of IBD.
- Diet and lifestyle considerations may reduce inflammation in CD, specifically:
  - A liquid diet, pre-digested formula, or nothing by mouth (NPO) may reduce obstructive symptoms.
  - An exclusive enteral diet can settle inflammatory disease, especially in children.

General IBD guidelines from the American Dietetic Association.

- Eat small meals or snacks every 3 or 4 hours.
- Use **low fiber foods** when you have symptoms. You can slowly reintroduce small amounts of whole grain foods and higher-fiber fruits and vegetables one at a time when symptoms improve.
- Drink enough fluids (at least 8 cups each day) to avoid dehydration.
- Eat foods with added probiotics and prebiotics.
- Use a multivitamin.
- During periods when you don’t have symptoms, include whole grains and a variety of fruits and vegetables in your eating plan. Start new foods one at a time, in small amounts.

Tips for Healthy Eating with IBD

• When feeling well, people with IBD can eat a normal, balanced diet
• When experiencing symptoms, may need to adjust diet:
  – Eat more small, frequent meals
  – Eat in a relaxed atmosphere
  – Avoid high fat or greasy foods
  – Limit spicy or highly seasoned foods
  – Avoid trigger foods
  – Limit high-fiber foods
  – Consider nutritional supplements

Control IBD Symptoms

Avoid “trigger” foods
Not all IBD patients are affected by the same foods

Common foods that may cause GI discomfort:
• High-fiber foods (e.g., nuts, raw, leafy vegetables)
• High-fat foods (e.g., greasy, fried foods)
• Caffeine (e.g., coffee, tea, soda, chocolate)
• Alcohol
• Carbonated beverages
• Dairy (lactose)
• Sugar alcohols in sugar-free foods (e.g., sorbitol)
• Spicy foods

Use food diary to help identify “trigger” foods
Summary

• Generally, people with IBD should eat a well-balanced, nutrient-rich diet when feeling well and should not feel limited by their disease
• Keep a food diary
  – CCFA-prepared food diary is available at: www.ccfacommunity.org, click on Resource Center tab
• When experiencing a flare or complication (such as a stricture), may need to adjust diet
  – Make sure you are meeting your calorie and nutrient needs
Nutrition and Diet Resources

- American Society of Parenteral & Enteral Nutrition — www.nutritioncare.org
- Academy of Nutrition & Dietetics – www.eatright.org
- Find a registered dietitian – www.eatright.org/programs/rdfinder
- The American Association of Nutritional Consultants – www.aanc.net
- USDA foods for wellness information – www.choosemyplate.gov
- CCFA Website – www.ccfa.org