Inflammatory Bowel Disease and Nutrition

Inflammatory Bowel Disease (IBD) consists of two different but related conditions. These conditions are Crohn’s Disease (CD) and Ulcerative Colitis (UC). In both conditions, there is inflammation in the lining of the bowel or intestine that causes the symptoms of the disease. CD can occur anywhere in the gastrointestinal (GI) tract, from the mouth to the anus. UC is limited to the large intestine or colon only. Patients often believe that their disease is caused by, and can be cured by diet. However, no specific diet has been shown to prevent or treat IBD, but some diet strategies may help control symptoms.

Many people believe that they need to avoid entire food groups or specific foods. However, there is no need to avoid foods unless they worsen your symptoms. It is best to restrict as few foods as possible to increase the chances that you are getting a balanced, nutritious diet. This is important for maintaining the function of your digestive tract and your overall health.

When managing an inflamed GI tract the simple act of eating can become a difficult and overwhelming task. Try out the following recommendations and track and observe your individual response to determine what is best for you. Keep a journal periodically to determine a pattern of foods that are problematic or that trigger flares. The key point is to strive for a well-balanced, healthy diet. Healthy eating habits are desirable for everyone but they're especially important for people with IBD.
**General Nutritional Guidelines for IBD:**

**Fiber**

The two primary types of fiber are soluble and insoluble fiber. For some patients with IBD insoluble fiber may be irritating to an inflamed gut. Severe irritation or inflammation can stem from consuming foods that are raw and consist of certain fibers. Some people tolerate certain foods better than others. All fruits and vegetables are considered part of a healthy diet. For people with IBD it may be necessary to become aware of how your body responds to the various types of fruits and veggies you consume.

Some patients with IBD feel their best when they decrease or minimize the amount of insoluble fiber they are consuming. It may be necessary to consume soluble fiber in the form of fruits and vegetables to optimize nutrient intake while decreasing GI irritation.

<table>
<thead>
<tr>
<th>Soluble Fiber</th>
<th>Insoluble Fiber</th>
</tr>
</thead>
<tbody>
<tr>
<td>● May provide significant benefit to IBD patients because it has a great capacity for absorbing water in the GI tract.</td>
<td>● Draws water in the GI tract and makes contents move more quickly.</td>
</tr>
<tr>
<td>● Soluble fiber forms a gel like consistency that helps absorb water and slows the transit of food in the intestines resulting in more opportunity for nutrient absorption and decreased diarrhea</td>
<td>● Increases bulk and speeds up transit time</td>
</tr>
<tr>
<td>● Pectins and gums are examples of soluble fibers that have the capacity to hold a significant amount of water</td>
<td>● For some IBD patients insoluble fiber can sometimes lead to further irritation and diarrhea</td>
</tr>
<tr>
<td>● Soluble fiber most often resides inside of foods for example: the inner portion of an apple is where the soluble fiber resides</td>
<td>● Insoluble fiber is located in the skin of most fruits and vegetables for example the skin of the apple, pear, or pepper</td>
</tr>
</tbody>
</table>

**Vegetables**

The ability to digest vegetables in various forms will vary for each IBD patients. Vegetables provide important nutrients and antioxidants that are necessary for keeping the body strong and healthy. Cooking your veggies begins the process of breaking down the food and will decrease the amount of work your intestines needs to do in order to digest them.

In an effort to achieve the most optimal nutritional intake here are some suggestions for how to prepare and eat veggies:
- Cook all veggies
- Some IBD patients can tolerate raw veggies while others may not
- Veggies that contain seeds may be problematic for some IBD patients
- Consider peeling the skin off of all fruits and vegetables. The skin contains insoluble fiber which can be problematic for people with IBD.
- Eat fresh vegetables when possible

<table>
<thead>
<tr>
<th>Veggies that may cause problems for IBD patients:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa sprouts</td>
</tr>
<tr>
<td>Beets</td>
</tr>
<tr>
<td>Cabbage</td>
</tr>
<tr>
<td>Cucumber</td>
</tr>
<tr>
<td>Onion</td>
</tr>
<tr>
<td>Sauerkraut</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Veggies that may cause gas:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beans broccoli</td>
</tr>
<tr>
<td>Cauliflower</td>
</tr>
<tr>
<td>Garlic</td>
</tr>
<tr>
<td>Peppers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Veggies that may be well tolerated by IBD patients:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acorn squash</td>
</tr>
<tr>
<td>Broccoli (well cooked)</td>
</tr>
<tr>
<td>Cauliflower (well cooked)</td>
</tr>
<tr>
<td>Spaghetti squash</td>
</tr>
<tr>
<td>Lettuce (Bibb or Boston is best)</td>
</tr>
</tbody>
</table>
Fruits

Tips for eating fruits:

- Some patients do not tolerate fruits that contain seeds and or dried fruit
- Consider peeling the skin off of all fruits to remove the insoluble fiber which may be problematic for people with IBD.

<table>
<thead>
<tr>
<th>Fruits that may be well tolerated by IBD Patients:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple, cooked</td>
</tr>
<tr>
<td>Apricot</td>
</tr>
<tr>
<td>Cantaloupe</td>
</tr>
<tr>
<td>Mango</td>
</tr>
<tr>
<td>Peach</td>
</tr>
<tr>
<td>Plum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fruits that may worsen symptoms:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackberries</td>
</tr>
<tr>
<td>Cranberries</td>
</tr>
<tr>
<td>Orange</td>
</tr>
<tr>
<td>Currents</td>
</tr>
<tr>
<td>Grapefruit</td>
</tr>
<tr>
<td>Strawberries</td>
</tr>
</tbody>
</table>

Grains

An IBD patient’s ability to tolerate grains will vary between patients. Whole wheat and bran based bread and cereal products contain large amounts of insoluble fiber that can be very irritating to an inflamed gut.

- Cautiously use or avoid all grains that contain high amounts of whole grains, wheat, bran, nuts and seeds.
- IBD patient's should cautiously use, limit or avoid all whole-grain wheat and whole grain bran because of their high insoluble fiber content.
• Rice is more of a grass than a grain and is much gentler on your GI system
• Some patients notice they feel better when they avoid Gluten a protein in wheat products.

<table>
<thead>
<tr>
<th>Grains that may be well tolerated by IBD patients:</th>
<th>Grains that may worsen symptoms:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breads:</strong> white, potato, oatmeal, Rye (with no seeds), and sourdough</td>
<td><strong>Breads:</strong> whole wheat, Rye with seeds, 7-grain, 12-grain, bran, any breads containing whole grains, nuts or seeds</td>
</tr>
<tr>
<td><strong>Crackers:</strong> Water crackers, Rice crackers (with no whole grains), and Keebler townhouse</td>
<td><strong>Crackers:</strong> Trisket, Tortillas, Multigrain, cracked wheat, any crackers containing seeds</td>
</tr>
<tr>
<td><strong>Rice:</strong> White rice, instant brown rice, and Arborio</td>
<td><strong>Rice:</strong> Wild rice, Whole grain brown rice</td>
</tr>
<tr>
<td><strong>Pasta:</strong> white</td>
<td><strong>Pasta:</strong> Whole Wheat</td>
</tr>
<tr>
<td><strong>Cereal:</strong> Cheerios, Rice Krispies, Rice Chex, Kix, Life, Quaker Oatmeal Square, Puffed Rice, well-cooked Oatmeal or cream of rice cereals</td>
<td><strong>Cereal:</strong> All-Bran, Shredded Wheat, Fiber One, Raisin Bran, Wheaties, Bran Flakes, Great Grains, Granola, grape Nuts and any containing dried fruit or nuts.</td>
</tr>
</tbody>
</table>

**Fats**

Majority of processed foods, fried foods and fast foods contain trans-fats which can cause irritation and potentially gastrointestinal upset for IBD patients. Avoid trans-fatty acids which are manufactured fats that are put in food products to prolong shelf life. These types of foods do not provide optimal nutrients. The ingredient listing of the food item will contain the words “partially hydrogenated” or “hydrogenated.” If you see either of these terms the food item contains trans-fats and should be avoided.

**Protein**

Some IBD patients do not tolerate: dairy, certain grains, red meat, beans, legumes, or soy. Therefore protein malnutrition is common in IBD patients and additional supplements and minerals may be needed. Protein is important for immune function, lean body mass, growth and repair, formation of hormones and enzymes, transport of vitamins and minerals.
Protein sources that may be well tolerated by IBD patients:

<table>
<thead>
<tr>
<th>Chicken</th>
<th>Fish</th>
<th>Turkey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pork</td>
<td>Eggs</td>
<td>Rice or lactose free whey protein powder</td>
</tr>
</tbody>
</table>

Protein sources that may worsen symptoms for IBD patients:

<table>
<thead>
<tr>
<th>Dairy</th>
<th>Grains</th>
<th>Red meat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot dogs</td>
<td>Beans</td>
<td>Legumes</td>
</tr>
<tr>
<td>Soy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Beverages:**

Consuming adequate fluids is very important in managing IBD. Due to the chronic diarrhea many IBD patients experience one can easily become dehydrated. To determine what amount of fluids you need to consume daily divide your weight by 2 and this equals the number of ounces you need each day.

Example: 150 lbs ÷ 2 = 75 ounces of H2O daily

If you are struggling to consume adequate food during a flare strive to consume adequate fluids by consuming: water, Pedialyte™, Vitamin Water™, Gatorade™, and or Powerade™. You could also add a small amount of orange juice or electrolyte replacement beverage to water to decrease the amount of sugar you are consuming.

**Additional Books and Resources:**

- Crohn’s and Colitis Foundation of America: [http://www.crohnscolitisfoundation.org/info/diet](http://www.crohnscolitisfoundation.org/info/diet)
- *IBD Self-Management* by Sunanda V. Kane M.D., MSPH
- *Alive and Kicking* by Rolf Benirschke (A true life story of how an NFL star survived ulcerative colitis and ostomy surgery)
- *What to Eat with IBD* by Tracie M. Delessandro MS, RD, CDN
- *Digestive Wellness* by Liz Lipski Ph.D., CCN
- *Inflammatory Bowel Disease A guide for Patients and Their Families* by Stanley H. Stein M.D. & Richard P. Rood M.D.
**Veggies**
Cooked veggies are best for some IBD patients. Cooked veggies require less enzymes to break down foods and may decrease stress on the GI system.
Recommended veggies:
- Acorn Squash
- Arugula
- Asparagus
- Broccoli (very soft)
- Butternut Squash
- Carrots
- Cauliflower (very soft)
- Lettuce (bibb or Boston is best)
- Parsnips
- Peppers roasted without the skin
- Potatoes
- Pumpkin
- Spaghetti squash
- Collard greens (very soft)
- Endive
- Kale (very soft)
- Spinach
- Sweet potato
- Tomato without the seeds
- Yam

**Fruits**
Some IBD patients may need to limit or avoid dried fruit, citrus fruits and all berries (the seeds may be irritating to the gut)
- Apple, cooked
- Apple, peeled (if no acute diarrhea)
- Applesauce
- Apricot
- Avocado
- Banana
- Cantaloupe
- Casaba melon
- Honeydew
- Mango
- Nectarine
- Papaya
- Peach
- Pear (cooked is best)
- Pineapple
- Plum
- Watermelon

**Sweets**
- Dark chocolate
- Fruit Sorbet
- So Delicious™ Coconut Ice Cream
- Rice Dream™ ice cream

**Grains**
- Pasta and Rice
- Oatmeal
- Basmati rice
- Brown rice
- White rice
- Quinoa
- Rice Noodles

**Protein**
- Chicken
- Turkey
- Pork
- Eggs
- Beef
- Beans
- Soy

**Dairy**
- Limit or avoid all lactose containing dairy products
- Dairy replacement options:
  - Coconut Milk
  - Rice milk
  - Hemp Milk
  - Almond Milk
  - So Delicious™ Coconut yogurt and coconut ice cream.
  - Rice Dream™ ice cream.

**Fish**
- Wild caught
- Salmon, herring, Cod and Sardines
  (above fish contain most Omega-3 fatty acids)
- Tilapia, and Halibut
- Shellfish:
  - Scallops, shrimp, crab and lobster

**Fats**
- Extra Virgin Olive Oil
- Expeller Pressed canola Oil
- Coconut Oil
- Avocados
- Fats cont.
- Nuts and nut butters.
  (use whole nuts with caution or avoid if they cause irritation)
- Nut butters are already broken down for you and may be easier on your GI system. This is based on each individual’s experience.

**Beverages**
- Water (drink half of your body weight in ounces daily)
- Tea: green, black or herbal
- Sparkling water
  (use carbonated beverages cautiously)
- Pedialyte® (may be necessary for electrolyte replacement if you have experienced chronic diarrhea)
- 2-3 oz of fruit juice watered down with 6 oz of H2O
  (helps reduce the sugar content and provides some nutrient replacement)

**Spices**
The following spices contain anti-inflammatory properties
- Turmeric, curry powder (which contains turmeric), ginger and garlic (dried and fresh), chili peppers, basil, cinnamon, rosemary, thyme

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