

Eating Right With IBD

Presented by the Crohn's & Colitis
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Nutrition Issues in Inflammatory Bowel Disease

- “ Nutrition screening
- “ Bone disease
- “ Nutrition support therapy
- “ Treatment of growth failure in children
- “ Management of short-bowel syndrome
- “ Bowel rest in treatment of fistulas
- “ Bowel rest and nutrition support as primary therapy
- “ Nutrition as it impacts on the disease process



Nutrition and IBD

Increased risk for nutritional deficiencies:

- “ Nutritional deficiencies
- “ Weight loss
- “ Iron deficiency
- “ Folic acid deficiency
- “ Vitamin B12 deficiency
- “ Osteoporosis
- “ Growth retardation in children
- “ Dehydration
- “ Fluid & mineral/electrolyte deficiencies



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Nutrition Screening and IBD

Evaluation to include:

- ” Patient history
- ” Physical exam and laboratory studies:
 - . **Serial height and weight**
 - . **Blood count, CRP, ESR**
 - . **Biochemical profile**
 - . **Serum iron studies, including ferritin**
 - . **Folic acid**
 - . **Vitamin B12 (including Me Mal Ac, homocys)**
 - . **25 OH vitamin D**
 - . **Bone density testing (DEXA), additional tests as indicated**





Bone Disease and IBD

Osteoporosis is associated with:

- “ Prior or current steroid use
- “ Family history of osteoporosis
- “ Tobacco use
- “ Menstrual loss
- “ Kidney stones
- “ Extensive ileal disease or resection
- “ Inadequate calcium intake
- “ Prolonged active disease
- “ Liver disease



Bone Disease and IBD

Osteomalacia/Rickets/Vitamin D Deficiency (soft bones) is associated with:

- ” Extensive small bowel disease or resection
- ” Kidney stones
- ” Prolonged active disease/weight loss

Nutritional Treatment of Growth Failure

Growth failure may be improved by:

- “ Intravenous nutrition
- “ Tube feeding
- “ Oral intake of intact protein formulas
- “ Increased intake of ordinary food

Definitive treatment may cause even greater improvements:

- “ Surgery
- “ Immunomodulators (e.g. 6-MP)
- “ Infliximab



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Management of Short-Bowel Syndrome

- “ Nutrition support can be life-sustaining, and definitive management
- “ Initially, this may require total parenteral nutrition (TPN), but patients may be able to advance to tube feed formulas and food
- “ With modern surgical indications and techniques, and advancing medical management, short-bowel is less common

Bowel Rest in the Treatment of Fistulas

- “ Several studies show initial success with TPN, but poor sustained response over 1 year follow-up
- “ There are very few studies with enteral support
- “ Newer treatments, such as 6-MP, infliximab, antibiotics, and surgery can be more effective
- “ Nutrition support is a useful adjunct



Bowel Rest and Nutrition Support As Primary Treatment

- “ Bowel rest and TPN work in Crohn’s disease, but are unnecessary
- “ Enteral predigested formulas have been used to put Crohn’s disease patients into remission
- “ Studies in Europe show effectiveness equal to steroids to induce remission in Crohn’s disease (in those patients that can tolerate enteral formulas)
- “ Overall, review of the literature shows that steroids induce remission in more people, faster, longer than enteral nutrition



Nutritional Strategies for IBD

General Strategies:

- “ To be as well nourished as possible to keep the body healthy
- “ To control nutrition-related symptoms
- “ To eat in an inclusive and as healthy a way as possible
- “ To be flexible with eating depending upon how you feel
- “ To limit the foods that bother you



Nutritional Strategies for IBD

- “ **There are no good data that diet causes IBD. However, numerous studies confirm that diet can affect symptoms of IBD.**
- “ **IBD symptoms can impair dietary intake, which can affect nutritional status; this can affect the ability to cope with flare-ups.**
- “ **Talk with your physician or dietician to determine whether a specific diet may be helpful for you.**

Nutritional Strategies for IBD

Specific Strategies:

- “ Cooked fruit and vegetables are better tolerated than uncooked
- “ Peeled fruits and vegetables are better tolerated than unpeeled
- “ Pureed vegetables and fruits may be better tolerated
- “ Vegetable stock can be used to cook other foods such as rice and pasta, for added nutrient value (vitamins, minerals, & phytonutrients)
- “ Avoid carbonated beverages and foods with sorbitol, etc. (e.g. sugarless candies, gum)



Food/Eating Habit Recommendations

For patients with active inflammation in the bowel or intestinal narrowing:

Choose: Smaller, more frequent meals, lower in fat, be careful with spices

Watch: Large, sporadic meals, high fat foods, or highly seasoned foods

Note: This diet must be individualized for each patient.



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Nutritional Strategies for IBD .

The Low Residue/Low-Fiber Diet

For patients with tight strictures, acute flares of disease:

Choose: Meat, fish, poultry, eggs, breads and cereals made from refined white flour, well cooked vegetables, canned or cooked fruits .
may need to experiment with quantities

Watch: Raw fruits, popcorn, nuts, seeds, raw vegetables, whole grain breads and cereals

Some patients note trigger foods such as spicy foods, coffee, alcohol, chocolate, fatty foods, raw vegetables

Nutritional Strategies for IBD - The High Protein/High Calorie Diet

Choose: More frequent meals, beverages with calories (diluted juices, lemonade, 2% milk), bagels, bread, cereals, peanut butter, nuts if tolerated, granola, dried fruits, (if tolerated), potatoes, rice, pasta, vegetables, (with some fat added), desserts. High-quality protein sources such as fish, meat, poultry, soy, dairy to be included

Watch: High-calorie foods with little nutritional value, such as candy, soda, & chips



Lactose Reduced Diet

- “ Low fat or no fat dairy products can be an excellent source of calcium, magnesium, B vitamins and high-quality protein. They do not cause flare-ups of IBD.**
- “ Some patients may have difficulties digesting milk sugar (lactose).**
- “ Most patients do not need to eliminate dairy.**
- “ Patients can often tolerate dairy products in small amounts, as part of a mixed meal.**

Nutritional Strategies for IBD - The Lactose-Reduced Diet

Choose: Small amounts of lactose containing foods such as lactase-treated milk, cheese, and yogurt, and you may want to use calcium supplements and/or calcium fortified foods such as orange juice, cereals, & soy milk.

“Yogurt has been shown to be especially digestible.

Watch: Large amounts of lactose containing foods, or more than one item at a meal or snack. Read food labels for the words: milk, whey, cream, margarine, & butter.



Nutrition as it Impacts on the Underlying Disease Process

Symptoms do not equal inflammation

For example:

- “ Lactose intolerance can cause cramps, bloat, and diarrhea, just like IBD
- “ A large piece of vegetable matter causing a partial obstruction at a tight stricture can cause pain, vomiting, and diarrhea, just like IBD
- “ Gassy distension from carbonated beverages can stimulate bloat, pain, and diarrhea, just like IBD



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Nutrition as it Impacts on the Underlying Disease Process

Investigational:

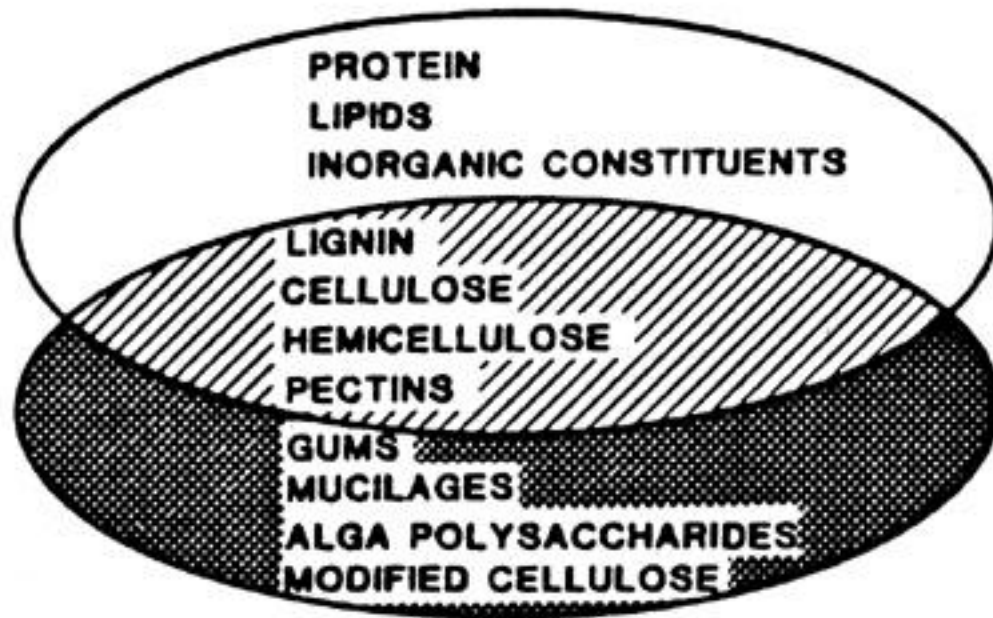
- “ **Omega 3 fatty acids** (found in marine oils, lesser amounts in flax, walnuts, purslane, canola) are anti-inflammatory
- “ **Short-chain fatty acids** (derived from starches, fibers) are the preferred fuel for colon cells
- “ **Transforming growth factor-beta** (found in minute amounts in human and cow milk) can be anti-inflammatory (used in oral formula)



Nutrition as it Impacts on the Underlying Disease Process

Investigational:

- “ **Probiotics** (gut friendly+ bacteria) promote a healthier bacterial milieu. Can be found in fermented foods such as yogurt, kefir, tempeh, miso, kimchee, sauerkraut
- “ **Prebiotics** (fibers that probiotics use) adjunctive use, found in fruits, vegetables, seaweed, whole grains, legumes



- PLANT CELL WALL
- DIETARY FIBER
- ▨ COMMON TO BOTH

Figure 29-1 ■ Relationship between a plant cell wall and the current dietary fiber concept.

Role of Gluten

- É Theoretical basis for the Specific Carbohydrate Diet
- É No data supporting the hypothesis, diet is internally inconsistent; restrictive
- É However, about 1/8 patients with Crohn's disease have celiac sprue (gluten enteropathy); consider testing

Natural Medicines in Clinical Management of IBD*

- “ Essential Fatty Acids:
 - Marine oils (EPA, DHA)
 - Alpha . linolenic acid
 - Evening primrose oil
- “ Bromelain
- “ Chitosan
- “ Bovine cartilage
- “ Indian frankincense

*Natural Medicines Comprehensive Database 2004

Natural Medicines in Clinical Management of IBD*

” Antioxidants

Wheatgrass

Rutin

” Probiotics

Bifidobacter sp., S. thermophilus,

L. acidophilus, L. reuteri,

L. rhamnosus GG, S. boulardii

*Natural Medicines Comprehensive Database 2004

Natural Medicines in Clinical Management of IBD*

” Nutrients

Glutamine

Iron

Zinc

Calcium, magnesium

Vitamins A, B6, B12, C, D, E, K, folic
acid

*Natural Medicines Comprehensive Database

Natural Medicines in the Clinical Management of IBD*

- “ Adrenal extract
- “ Avens (*Geum urbanum*)
- “ Barley (heat treated, germinated) (*Hordeum vulgare*)
- “ Beta glucans
- “ Blond psyllium (*Plantago ovata*)
- “ Chlorella
- “ Greater burnet (*Sanguisorba officinalis*)
- “ Green tea (*Camellia sinensis*)
- “ Lipase
- “ N . acetyl glucosamine
- “ Oat bran (*Avena salva*)
- “ Self . heal (*Prunella vulgarus*)
- “ Spleen extract
- “ Water avens (*Geum rivale*)
- Wild indigo (*Baptisia tintoria*)

*Natural Medicines Comprehensive Database
2004

Supplements That May Worsen IBD Symptoms*

- “ Angelica trumpet decreases motility
(anticholinergic hyoscyamine, scopolamine)
- “ Alder buckthorn increases motility
(anthraquinone laxative)
- “ Aloe latex (anthraquinone laxative)
- “ Cascara (anthraquinone laxative)
- “ Castor oil (ricinoleic acid laxative)

*Natural Medicines Comprehensive Database 2004

Supplements That May Increase IBD Symptoms*

- “ European Buckthorn (anthraquinone laxative)
- “ Fo . ti (anthraquinone laxative, potential hepatotoxin)
- “ Rhubarb (anthraquinone laxative)
- “ Senna (anthraquinone laxative)

*Natural Medicines Comprehensive Database 2004

Important Messages

- “ Proper nutrition, along with drug therapy, can help manage the symptoms of IBD
- “ The body **ALWAYS** needs to be nourished
- “ While there is no medical cure for IBD, there are a number of treatment options, including drug therapy and possibly surgery
- “ Close communication and cooperation with your doctor is essential to finding the proper treatment and diet that will help relieve symptoms

