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## NUTRITIONAL SUPPORT USING THE ULTRAINFLAMX<sup>®</sup> PROGRAM IN A PATIENT WITH ULCERATIVE COLITIS

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### Purpose

This study was designed to show the effectiveness of targeted nutritional support and dietary intervention in a patient with inflammatory bowel disease, such as ulcerative colitis (UC). The nutrition program included UltraInflamX medical food, an elimination diet, and a concentrated EPA-DHA fish oil supplement.

### Patient's Presentation and History

A 38-year-old Caucasian female presented with a diagnosis of UC and intermittent bouts of uncontrollable bloody diarrhea with abdominal pain, bloating, and flatulence.

Her symptoms began at age 25 with intermittent rectal bleeding and uncontrollable diarrhea. These symptoms increased until she was diagnosed with UC at age 31. The disease has caused her to stop working at times and she has been on several regimens of mesalamine (enema, oral), which appears to improve symptoms for a while but not completely resolve them. She was taking 800 mg of mesalamine tid at presentation. She reported intolerance to raw fruits and vegetables and possibly dairy, nuts, and seeds. She was also taking ibuprofen for chronic chondromalacia. Her history included anorexia and depression during the patient's early 20s, chronic sinus infections over the preceding 5 years, kidney infections, and moderate antibiotic use in her childhood. Her family history included allergies and heart disease.

### Patient's Objective Information

- Slightly overweight female
- Physical exam unremarkable with the exception of an injected posterior pharynx and slight left and right lower abdominal tenderness on palpitation
- Dry skin
- Low stool total short chain fatty acids and butyrate
- Low red blood cell docosahexaenoic acid (DHA)

### Plan

The patient was instructed to begin:

- UltraInflamX, 2 scoops bid
- Concentrated EPA/DHA fish oil supplement, 2 tid with meals
- Elimination diet

### 4 Week Results

The patient independently stopped the mesalamine in the first 2 weeks. For additional digestive support, she was instructed to take a berberine supplement and 1 tsp bid of a 3:1 extract of chamomile (*Matricaria chamomilla*) and agrimony (*Agrimonia eupatoria*).

After 4 weeks, the patient reported improvement in digestive symptoms. She was having no bloating or discomfort and her bowel movements were firm, controlled, and had decreased to 1 to 2 per day. She was able to eat raw vegetables without diarrhea for the first time in many years. The patient was instructed to immediately discontinue the chamomile extract and discontinue the berberine supplement in 2 weeks, but continue the UltraInflamX Program.

### 12 Week Results

After 12 weeks, the patient continued to do well. She was having 1 to 2 well-formed stools per day and no gastrointestinal problems. During food reintroduction, which was started at week 6, she found she had problems with dairy, simple sugars, and potatoes. After experiencing symptoms with these foods, she returned to the UltraInflamX Program and said the symptoms abated within one day. At 8 weeks, she decreased the fish oil supplement to 2 bid. At 12 weeks, the patient was told to discontinue the UltraInflamX Program and begin taking probiotics.

### 16 Week Results

After 16 weeks, the patient continued to do well and was able to tolerate eating fruits and vegetables. Following challenges with dairy or alcohol, the patient reported loose stools (without blood or mucus), which lasted for 5 days. She said these symptoms had resolved more slowly than they did when she was on the UltraInflamX medical food. Due to her response, the patient was placed on a maintenance dose of 2 scoops qd of UltraInflamX.

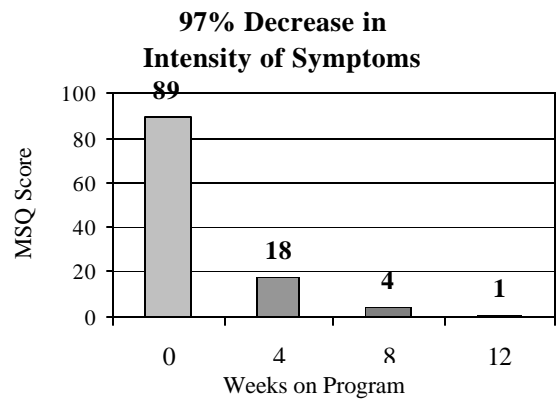
### Conclusion

Inflammatory bowel disease may be exacerbated by nutrient insufficiencies, food intolerances, and/or bacterial dysbiosis. Promoting healthy gastrointestinal functions by nutritional support with the UltraInflamX Program may be beneficial in these patients.

**Figure 1**

After 12 weeks the patient had a sizable decrease in her MSQ score\* (reference range: <30 = few or low intensity symptoms).

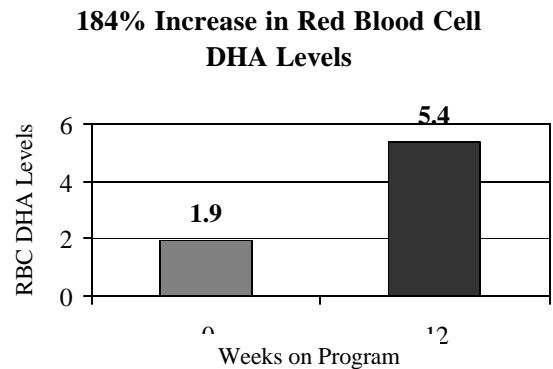
This result suggests a substantial positive effect on the patient's physical symptoms with nutritional support featuring the UltraInflamX Program.



**Figure 2**

After 12 weeks, the patient's RBC DHA levels dramatically increased from 1.9% to 5.4% (reference range: 2 to 12 wt %).

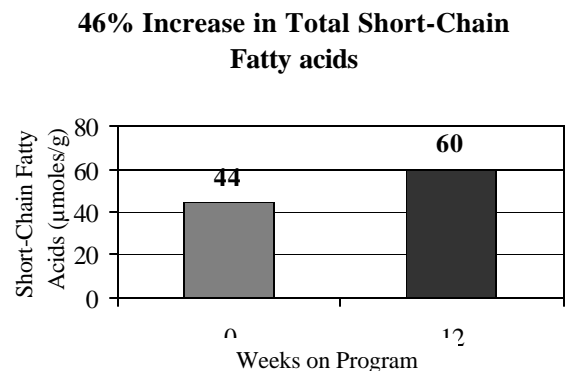
This result suggests a healthy balance of anti-inflammatory to pro-inflammatory precursors after 12 weeks on the program.



**Figure 3**

After 12 weeks, the patient's stool, short-chain fatty acids increased from 44 μmoles/g to 60 μmoles/g. (reference range: 56-156 μmoles/g).

This result suggests healthier gastrointestinal (GI) microbial state.



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\*The Medical Symptom Questionnaire<sup>®</sup> (MSQ) is a clinical tool for the evaluation of general physical symptoms. Total scores above 75 are generally associated with substantial symptomatology and disability; scores below 30 generally indicate few or low-intensity symptoms.

Note: The information provided in this case study describes the results of one patient under the care of a licensed healthcare practitioner and may not be a typical response. UltraInflamX<sup>®</sup> medical food is to be used under the supervision of a physician or other licensed healthcare practitioner.

Case study: Nutritional Support Using UltraInflamX in a Patient with Ulcerative Colitis. Metagenics, Inc. 011BD1003.