

Inflammatory Bowel Diseases

Inflammatory bowel disease (IBD) covers some emerging intestinal disorders, the primary ones being Crohn's disease (CD) and ulcerative colitis (UC). These pose major health complications for as many as 1 million people in the United States. A number of factors are thought to play a part in their rapid increase during the current era.

Population Groups and Pharmaceuticals

Inflammatory bowel disease appears to run in families and is most commonly diagnosed in individuals between the ages of 15 to 30. It affects both genders equally and is more prevalent among Jews of European descent than any other ethnic group.

The use of oral isotretinoin (Accutane), commonly prescribed for scarring cystic acne, is associated in some studies with development of ulcerative colitis. Additionally, nonsteroidal anti-inflammatory medications (Ibuprophen) sometimes create gastric distress and in UC sufferers, may worsen symptoms.

Effect of Diet

When processed foods begin to represent a significant portion of a society's diet, whole plant foods are often replaced by a larger proportion of animal foods and refined carbohydrates. This creates a more alkaline colon environment, which favors the growth of harmful microorganisms. As people consume more high-calorie fast food, consumption of the fiber-rich foods (fruits, vegetables, grains, beans, seeds and nuts) that feed our protective bacteria sharply declines.

In patients with IBD, immune cells in the digestive tract are abnormally and chronically activated in the absence of any known invader. The ongoing inflammation and ulceration has been established to be the result of an overactive immune response stemming from an imbalance of intestinal bacteria.

Crohn's and UC affect different areas of the digestive tract. In Crohn's, part of the small intestine is usually inflamed, reducing digestion and absorption. With UC, digestion is nearly normal since only the colon is diseased.

When Crohn's affects the small intestine alone, diarrhea and malnutrition result. If the colon is also involved, the diarrhea can be severe, resulting in serious health problems. Nutritional deficiencies and inability to maintain a healthy weight are common in this scenario.

Symptoms of IBD

Inflammatory bowel disease can range from mild to severe with chronic or intermittent symptoms. It can subside or go into remission for months or even years at a time, but relapses or flare-ups may occur without warning. Symptoms commonly recur at various times over a person's lifetime.

The inflammatory process in IBD results in increased numbers of white blood cells in the lining of the intestines. Over time, tissue death results in chronically inflamed areas and the outcome is ulcerations that produce pus and blood.

IBD can multiply health problems throughout the body. Blood loss from the digestive tract normally results in iron deficiency anemia due to the reduction in red blood cells. Other common accompanying issues include:

- Arthritis and joint pain
- Fragile bones and fractures
- Eye problems
- Liver inflammation
- Gallstones and kidney stones
- Skin sores
- Loss of appetite and weight loss

Some of these disorders are the consequences of poor nutritional status, including inadequate intake, poor absorption and increased losses from diarrhea. Others are a result of the inflammatory process affecting other organ systems.

Differences between Crohn's and Ulcerative Colitis

These two diseases impact the digestive system in different ways. Ulcerative colitis affects continuous stretches of the lining, usually beginning with the rectum, and does not penetrate deeply. Inflammation causes the colon to empty frequently, resulting in abdominal pain and bloody diarrhea.

Crohn's disease is usually more serious in that it can attack any part of the small or large intestines. It commonly targets the lower part of the small intestines initially and spreads from there to the colon. Swelling and scar tissue frequently thicken the intestinal wall, which can narrow and stiffen the passageway, occasionally resulting in blockages.

In Crohn's, deep ulcers may tunnel into surrounding tissues and these frequently require surgery. These fistulas (abnormal passageways between two organs or between an organ and the skin) can also puncture holes in the intestines. From such openings, bowel contents can leak into the abdominal cavity, spreading infection and disease.

While the inflammation in UC affects a continuous area, the disease process in Crohn's often occurs in patches. Diseased segments with deep ulcers are sometimes separated by unaffected tissue.

Treatment Options

Most persons who suffer from IBD are able to identify specific foods that trigger symptoms, particularly during

flares. It's helpful to keep a daily food diary with serving sizes and symptoms to aid in identifying troublesome food and beverages. Many with Crohn's benefit from a high-calorie liquid diet during flare-ups, as giving the intestines a rest helps speed remission and improves disease control.

Crohn's patients need to consume a diet that is high in calories and protein. In cases where a stricture (narrowed passageway) exists in the small intestines, reducing fiber may help lessen pain, cramping and diarrhea. Otherwise, a fiber-rich diet of primarily whole plant foods has been found to be favorable.

Some supplements are recommended for those who suffer from inflammatory bowel disorders. Many people with Crohn's are deficient in vitamin D. Since IBD significantly increases risk for colon cancer and vitamin D has been found to reduce risk for this type of cancer, it is highly recommended that patients obtain a vitamin D assay test from their physician to determine the need for a supplement.

Daily intake of omega-3 fish oil has been found in some studies to reduce inflammation and promote weight gain. Because the American diet is deficient in these essential fatty acids unless an individual is consuming wild salmon two to three times weekly, the American Heart Association recommends that all adults take at least 1,000 mg of fish oil daily to reduce their risk of heart disease.

Additionally, there is increasing evidence about the usefulness of probiotics, particularly *Lactobacillus* and *Bifidobacterium*, for helping to normalize gut immune response and thereby reduce inflammation and diarrhea. A number of probiotic preparations are available in addition to yogurt and other cultured foods with live bacteria. (For more information, see the April 2009 issue of Nutrition Nuggets on Probiotics.)

Medications are used to suppress the overactive immune system in persons with IBD. When meds can no longer control symptoms, surgery becomes necessary. This is most often the case in patients with Crohn's.

Specific Carbohydrate Diet

The Specific Carbohydrate Diet (SCD) is a highly restrictive grain and sugar-free way of eating that has helped a number of people with IBD, celiac, diverticulitis, and irritable bowel syndrome. Although this diet is challenging to follow, some patients find it effective for bringing sustained remission, with infrequent episodes of flare-ups.

Edward Loftus, M.D., Professor of Medicine in Gastroenterology and Hepatology at Mayo Clinic in Rochester, MN, says he hears a lot about SCD from his patients. Some of those who try it remain on it and find benefits, though the majority does not. He finds many patients also benefit from probiotics, antibiotics and elimination of offending foods.

There is currently a growing interest among groups such as the National Center for Complementary and Alternative Medicine at National Institutes of Health in studying the effects of diet on chronic illness. If funding can be created for this type of research in IBD, some of the mystery surrounding this disorder may be clarified, which could result in improved treatment for many.

Resources for Inflammatory Bowel Disease

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