

What is IBD (Inflammatory Bowel Disease) – Causes, Symptoms, Diagnosis, Treatments:

Inflammatory Bowel Disease (IBD) is a lifelong health condition that affects the body's gastrointestinal tract and may also involve other areas of the body too. The intestinal tract becomes inflamed by different triggers or stimuli and for this individual that inflammation activity does not subside and stop and instead the body's immune system becomes constantly active. This constant activity and its consequences result in the gastrointestinal and sometimes non-gastrointestinal symptoms that one experiences.

Besides this interaction between an external stimulus and the body's immune system's response to it, some people are also at risk because of family traits or genetic predisposition risk factors. All three risk factors may also combine to result in IBD.

The two main types of IBD are Crohn disease (CD) and Ulcerative colitis (UC) while a small subgroup may have clinically Indeterminate colitis due to only disease involvement in the colon but not enough other disease factors to clearly make a distinction between either CD or UC. About 25% of all patients with IBD are children/adolescents. In the United States it is estimated that about 50,000 children/adolescents have IBD and every year another 7-10 children/adolescents out of 100,000 will develop IBD. Of these, about 20% are under 10 years-old and another 5% are younger than 5 years-old when diagnosed. For unknown reasons, the incidence of CD has been increasing over the past ten years while the incidence of UC has stayed about the same.

Symptoms of IBD may include a few, many or all of the following but need to be taken into context with physical findings, laboratory results, x-ray and gastrointestinal tissue features since many other causes can result in these symptoms too. The primary symptoms of IBD are bloody/mucousy diarrhea, abdominal pain, fevers and weight loss. Other symptoms include poor appetite, being tired, poor growth/short stature, delayed puberty, joint pain/swelling, red or purple painful rashes and eye pain/redness.

The diagnosis of IBD relies on the symptom history, specific examination findings, supportive laboratory and x-ray findings and documentation of noninfectious inflammation involving the gastrointestinal mucosa. This is accomplished by certain blood tests, stool tests, radiology studies such as an Upper GI series with small bowel follow through/Computerized tomography (CT) scan or Magnetic Resonance Enterography/Imaging (MRE/MRI) and endoscopy (Upper Endoscopy/ Esophagogastroduodenoscopy and colonoscopy as well as in some instances a Video Capsule Endoscopy).

Once diagnosed with IBD, medical and sometimes surgical treatment is necessary. Dietary and nutritional therapy is always necessary and is an adjunct to both medicines and surgery. Sometimes dietary treatment alone may be enough with either polymeric formulas (intact or partially intact proteins) or elemental formulas (individual dietary proteins in the form of amino acids) for some patients with mild or mild-to-moderate disease and who are very motivated given the strict compliance necessary on such a diet. Medicines used to treat IBD are those to induce remission and then maintain remission (prevent the disease from adversely affecting daily life and age appropriate activities). Medicines are given by mouth or by the bottom (rectum), into a vein or as an injection into the skin.

Classes of medications used to treat IBD fall into these broad categories: 5-ASA, corticosteroids, immunomodulators and biologics. Common 5-ASA drugs include sulfasalazine (Azulfidine®), mesalamine (Apriso®, Asacol®, Canasa®, Lialda®, Pentasa®, and Rowasa®), olsalazine (Dipentum®) and balsalazide (Colazal®). Corticosteroids include prednisone, prednisolone (Orapred®, Pediapred®, Prelone®), budesonide, methylprednisolone (Medrol®). The common immunomodulators are azathioprine, 6-mercaptopurine, methotrexate, cyclosporine, tacrolimus. Approved biologics include tumor necrosis factor alpha (TNF-alpha) inhibitors Infliximab (Remicade®), Adalimumab (Humira®) and Certolizumab pegol (Cimzia®) and white blood cell migration inhibitor, Natalizumab (Tysabri®)