

# Inflammatory Bowel Disease (IBD)

## Basics

### OVERVIEW

- A group of long-term (chronic) intestinal disorders (known as “enteropathies”; singular, enteropathy); characterized by persistent gastrointestinal signs (such as vomiting, diarrhea, weight loss) and microscopic evidence of inflammation of the intestines
- Also known as IBD

### GENETICS

- Susceptibility genes (like those seen in human inflammatory bowel disease) have not been identified in dogs and cats
- Certain forms of IBD are more common in some breeds of dogs and cats, suggesting a possible genetic component of the disease processes
- Certain genes, which are important components of normal immune responses, may make an individual susceptible to the development of IBD and are suspected in affected dogs, and possibly cats



### SIGNALMENT/DESCRIPTION OF PET

#### Species

- Dogs
- Cats

#### Breed Predispositions

- Some dog breeds are more likely to develop inflammatory bowel disease than other breeds; examples of specific diseases and the breeds they affect are immunoproliferative enteropathy of basenjis and Norwegian Lundehunds; histiocytic colitis of French bulldogs and boxers; and gluten-sensitive enteropathy in Irish setters; an increased incidence of IBD also is seen in the German shepherd dog
- Siamese may be more likely to develop IBD than other cat breeds
- IBD is common in mixed-breed dogs and cats

#### Mean Age and Range

- Most common in middle-aged pets, although younger pets (less than 2 years of age) may be affected

### SIGNS/OBSERVED CHANGES IN THE PET

- Dogs—chronic intermittent vomiting, large- and/or small-bowel diarrhea, and weight loss are common
- Cats—lack of appetite (known as “anorexia”) is most common, followed by weight loss, vomiting, and diarrhea
- Rumbling or gurgling noises in the gastrointestinal tract (known as “borborygmus”); presence of excessive gas in

the stomach and intestines (known as “flatulence”); blood in the stool (known as “hematochezia”); abdominal pain; and stools with mucus are reported less commonly

- Pet may appear healthy or may be thin and depressed
- Poor hair coat is noted frequently
- Abdominal palpation (that is, feeling the abdominal organs during physical examination by your pet's veterinarian) may reveal painful, thickened bowel loops and enlarged mesenteric lymph nodes (especially in cats)
- Fluid buildup in the abdomen (known as “ascites”) may occur in dogs with protein-losing enteropathy (condition in which proteins are lost from the body through the intestines)

## CAUSES

- Cause is unknown; most likely many factors lead to disease
- Cause likely involves complex interactions between the pet's genetics; immune capabilities and response of the lining of the intestinal tract (known as “mucosal immunity”); and environmental (gastrointestinal bacteria) factors
- *Giardia*, *Salmonella*, *Campylobacter*, and normal resident gastrointestinal bacteria have been implicated
- *E. coli* has been associated with nodular lesions of the lining of the intestines (known as “granulomatous mucosal lesions”) in dogs with histiocytic ulcerative colitis; “histiocytic ulcerative colitis” is inflammation characterized by a thickened lining of the colon with varying degrees of loss of the superficial lining (known as “ulceration”); the thickening is due to infiltration of various cells (histiocytes, plasma cells, and lymphocytes) in the layers under the lining
- Meat proteins, food additives, artificial coloring, preservatives, milk proteins, and gluten (wheat) are proposed causative agents; dietary factors appear to be important in the development of long-term (chronic) inflammation in dogs and cats with inflammatory bowel disease

## Treatment

### HEALTH CARE

- Outpatient, unless the pet is debilitated from dehydration; low protein in the blood (known as “hypoproteinemia”); or has extreme weight loss with muscle wasting (known as “cachexia”)
- If the pet is dehydrated or must not be given food or water by mouth because of vomiting, fluids (such as lactated Ringer's solution) should be administered
- If the pet has severely low levels of albumin in the blood (known as “severe hypoalbuminemia”) due to loss of protein into the intestinal tract (known as “protein-losing enteropathy”), consider colloids; colloids are fluids that contain larger molecules that stay within the circulating blood to help maintain circulating blood volume, examples are dextran and hetastarch

### ACTIVITY

- No restrictions

### DIET

- Dietary manipulation is important, as dietary factors likely contribute to disease
- Feed a novel protein or hydrolyzed protein elimination diet to help reduce intestinal inflammation; a “novel protein” source is feeding a protein to which the animal has never been exposed; a “hydrolyzed protein” diet is one in which the protein source has been processed to break down the protein into smaller units, less likely to cause an inflammatory response
- Cobalamin—vitamin B12; low levels of cobalamin in the blood (known as “hypocobalaminemia”) require supplementation of cobalamin by weekly injections
- Fiber supplementation is suggested in dogs and cats with inflammation of the colon (colitis)
- Dietary requirements may be based on specific disease (for example, avoiding gluten or wheat in Irish setters with gluten-sensitive enteropathy)

## **SURGERY**

- No surgical procedures are available for relief of inflammatory bowel disease in veterinary patients but surgery is needed to definitively make a diagnosis in most cases

## **Medications**

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive

- Depend on the underlying cause
- Affected pets should be treated with drugs to suppress the immune response (known as “immunosuppressive drugs”)

## **Follow-Up Care**

### **PATIENT MONITORING**

- Periodic evaluations every 2–4 weeks may be necessary, until the pet's condition stabilizes
- No other follow-up may be required except yearly physical examinations and assessment during relapses

### **PREVENTIONS AND AVOIDANCE**

- Depend on the underlying cause
- Avoid foods, food ingredients, or artificial colorings that may contribute to intestinal inflammation

### **POSSIBLE COMPLICATIONS**

- Dehydration; malnutrition; adverse drug reactions; low levels of protein in the blood (hypoproteinemia); low levels of cobalamin (vitamin B12) in the blood (hypocobalaminemia); and low red-blood cell count (known as “anemia”)
- Depend on the underlying cause

### **EXPECTED COURSE AND PROGNOSIS**

- Generally a good-to-excellent short-term prognosis
- Poor long-term prognosis in dogs with IBD has been associated with severe clinical disease; fluid buildup in the abdomen (ascites); low levels of albumin in the blood (hypoalbuminemia); and marked abnormalities of the intestinal lining observed using a special lighted instrument called an “endoscope” that is passed through the mouth into the esophagus, stomach, and intestines (general term for procedure is “endoscopy”)

## **Key Points**

- Inflammatory bowel disease is not cured, but it is controllable in most affected pets
- Relapses are common
- Be patient during the various food and medication trials that often are necessary to get the disease under control
- Strictly adhere to the diet recommended by your pet's veterinarian