

Necrotizing Enterocolitis Characteristics and Clinical Features

Necrotizing enterocolitis is a life-threatening bowel disease that is characterized by bowel wall inflammation. It traditionally affects premature neonates. Early clinical features include failure to thrive, vomiting, and rectal bleeding while late clinical features include gastrointestinal perforation, peritonitis, or even sepsis and shock.



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Characteristics

Bowel Wall Inflammation

[Bowel-bowl Wall In-Flames](#)

Necrotizing enterocolitis is an inflammatory disorder of the GI tract primarily affecting neonates and children in the 1st week of life. The pathogenesis of this condition involves bacterial invasion of the gut and subsequent inflammation.

Prematurity

[Incubator](#)

NEC is the most common cause of acute abdomen in premature neonates. It usually occurs in their 2nd to 4th week of life. It can also affect term infants, affecting them in the 1st week.

Early Clinical Features

Failure to Thrive

[Very Skinny Baby](#)

Early clinical features of this disease include failure to thrive, bilious vomiting and rectal bleeding. Failure to thrive (FTT) describes a holistic clinical picture of inadequate growth and has many underlying etiologies, including NEC.

Vomiting

[Vomit](#)

Vomiting can occur in patients with NEC. It is a sign of gastrointestinal instability.

Rectal Bleeding

[Rectum-rectangle Bleeding](#)

Rectal bleeding may occur as gastrointestinal mucosa is destroyed and capillaries are left exposed.

Late Clinical Features

GI Perforation

GI Perforated

Gastrointestinal perforation can be a serious complication of necrotizing enterocolitis. A perforated bowel will usually require emergent surgery.

Peritonitis

Parrot-toe-on-fire

Late symptoms of this disease include abdominal guarding and pain on palpation. Reddening of the flanks is a late symptom of peritonitis and often indicates perforation of the necrotic intestine. Peritonitis is not uncommon after GI perforation.

Sepsis and Shock

Sepsis-snake and Electric Shock

Following peritonitis, sepsis can occur in these patients. Lab signs for sepsis include left shift, leukocytosis, elevated CRP, anemia and thrombocytopenia. This is a very serious complication that may result in ICU-level care.