Crohn's disease and ulcerative colitis are the two most common **inflammatory bowel diseases (IBD)**. They share similar features - chronic abdominal pain, diarrhoea and **bleeding from the back passage** - but behave very differently. A precise distinction is crucial for treatment and prognosis.

This guide outlines the key differences between Crohn's disease and ulcerative colitis - from where the disease is located in the bowel, to what a **colonoscopy** and biopsy typically show.

Quick overview

Characteristic	Crohn's disease	Ulcerative colitis
Location	Entire gastrointestinal tract (mouth to anus), most often	Only the colon, always involving the rectum

Characteristic	Crohn's disease	Ulcerative colitis
	the last part of the small intestine + colon	
Pattern	Patchy ("skip lesions")	Continuous, starting from the rectum and spreading upwards
Tissue layers affected	All layers (transmural)	Only the lining (mucosa/submucosa)
Typical symptoms	Abdominal pain (often lower right side), weight loss, diarrhoea, fatigue	Bloody diarrhoea, mucus in the stool, cramping with bowel movements
Complications	Fistulas, abscesses, narrowing (strictures)	Toxic megacolon, increased risk of bowel cancer with long-term, extensive disease
Smoking	Worsens the disease	Paradoxically protective (but never recommended)
Histology	Granulomas in approx. 50%	Crypt abscesses, no granulomas
Surgery	Not curative; segmental resection for complications	Total colectomy can be curative

1. Where in the bowel is the disease located?

The most important difference is the **anatomy**:

- **Crohn's disease** can affect any part of the gastrointestinal tract, from the mouth to the anus, but typically involves the terminal ileum (the junction between the small and large intestine). The inflammation occurs in patches ("skip lesions") with healthy areas in between.

- **Ulcerative colitis** always starts in the rectum and spreads upwards into the colon in a **continuous** pattern. The small intestine is never involved.

This is one of the reasons why a **colonoscopy** with a biopsy is the gold standard - the pathologist can see both the extent and the depth of the inflammation.

2. Symptoms that point to one disease or the other

The symptoms overlap, but some patterns are typical:

Crohn's disease:

- Abdominal pain in the lower right side (terminal ileitis).
- Weight loss and malabsorption (especially of vitamin B12, iron, and vitamin D).
- Perianal fistulas or abscesses - often an early sign.
- Diarrhoea without visible blood.

Ulcerative colitis:

- Bloody, mucus-filled diarrhoea, up to 10-20 times daily during severe flare-ups.
- Tenesmus (a cramping urge to have a bowel movement).
- Fewer symptoms affecting other parts of the digestive system, but often associated with joint pain and skin manifestations.

If you have persistent symptoms - especially bloody stools or unintentional weight loss - you should **always be evaluated** by a specialist.

3. Diagnosis: colonoscopy, biopsy and imaging

In Denmark, a combined diagnostic strategy is followed:

- **Colonoscopy with biopsies** taken from multiple segments - necessary to see the pattern and affected tissue layers.
- **Faecal calprotectin** - a simple and sensitive marker for bowel inflammation.

- **MR enterography** if inflammation of the small intestine or fistulas are suspected (typically in Crohn's).
- **Blood tests** to check for anaemia, B12, ferritin, CRP, and albumin.

The presence of granulomas in the biopsy supports a diagnosis of Crohn's disease, while crypt abscesses without granulomas typically point to ulcerative colitis.

4. Treatment - how does it differ?

Both diseases are treated in a stepwise approach, but the choice of medication varies:

- **5-ASA preparations (e.g., Pentasa, mesalazine)** are the first-line treatment for mild to moderate **ulcerative colitis**, but have limited effect in Crohn's disease.
- **Biologic therapy** (TNF inhibitors like infliximab/adalimumab, IL inhibitors like ustekinumab, integrin inhibitors like vedolizumab) is used for moderate to severe disease - especially early in Crohn's disease to prevent strictures.
- **Surgery** can be curative for ulcerative colitis (total colectomy with pouch reconstruction), but not for Crohn's disease - here, only the problematic segments are removed, as the disease can recur in healthy areas.

Read also: Surgical treatment of haemorrhoids and Chronic abdominal pain - when should you contact a surgeon?

5. When should you see a specialist?

Contact the clinic or your GP if you experience:

- Bloody or mucus-filled diarrhoea lasting for more than two weeks.
- Persistent abdominal pain with weight loss.
- Anal abscesses, fistulas or fissures that do not heal.
- A family history of IBD combined with unexplained abdominal symptoms.

An early **bowel investigation** and diagnosis significantly improve the prognosis - especially in Crohn's disease, where modern biologic therapy can alter the course of the disease if started early.

Sources

- Torres J. et al. *Crohn's disease.* Lancet 2017.
- Ungaro R. et al. *Ulcerative colitis.* Lancet 2017.
- DSGH - Dansk Selskab for Gastroenterologi og Hepatologi (Danish Society for Gastroenterology and Hepatology), guidelines for IBD.

Further reading

Chronic Inflammatory Bowel Disease (IBD) - Overview