

Paediatric Inflammatory Bowel Disease

Understanding
your condition



What is Paediatric Inflammatory Bowel Disease?

Paediatric inflammatory bowel disease (PIBD) includes **Crohn's disease** (CD), **ulcerative colitis** (UC) and **inflammatory bowel disease unclassified** (IBDU)^{1,4}. This medical condition occurs during **early childhood** (before 16-18 years)¹.

PIBD is a **chronic, relapsing and remitting inflammatory condition** characterised by intestinal inflammation leading to abdominal pain, diarrhoea, bloody stools and other intestinal and extra-intestinal symptoms and complications¹.

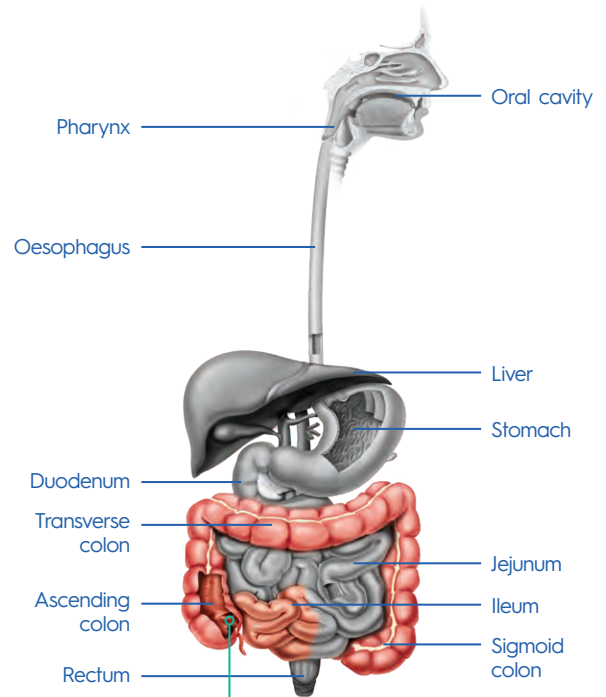


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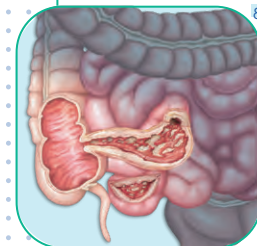
Approximately 25% of IBD cases will present before age 18 years¹.

What is Paediatric Crohn's disease?

Paediatric CD can affect any portion of the digestive tract from the mouth to the anus. However, it most commonly involves the **terminal part of the small intestine** (ileum) and the **large intestine** (colon)^{2,3}.

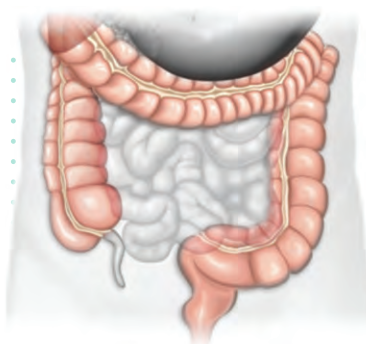


Frequently affected area



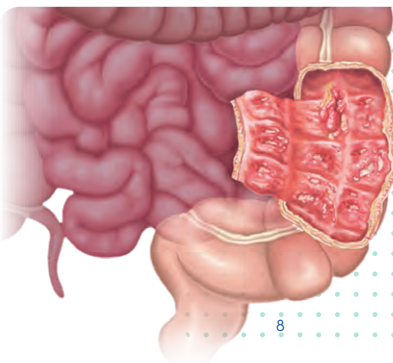
What is Paediatric Ulcerative Colitis?

In Paediatric UC, the **inflammation is often limited to the colon**, starting from the rectum^{3,4,5}.



Frequently affected area

8



Ulcers in the colon

8

What are the symptoms of PIBD?

The most common clinical features of **Crohn's disease** in children are¹:



Abdominal pain (>85%)



Diarrhoea (>75%)



Weight loss (>55%)

The most common clinical features of **Ulcerative colitis** in children are¹:

Abdominal pain (>85%)



Bleeding per rectum (>90%)



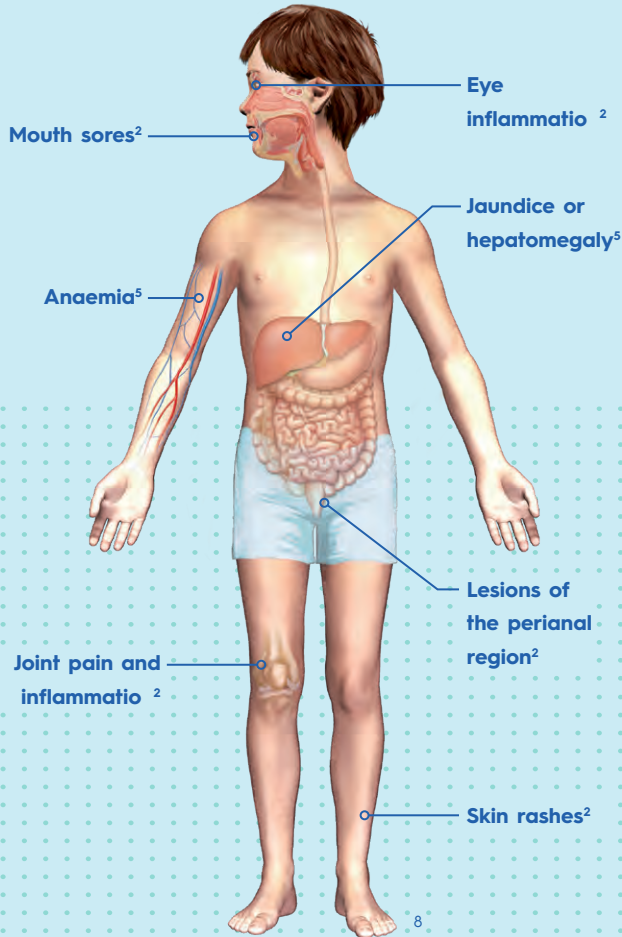
Diarrhoea (>90%)



Some affected children may also **feel tired, experience fever or loss of appetite**. Growth retardation is common at the time of diagnosis, especially in paediatric CD^{2,5}.

Extraintestinal manifestations of PIBD

IBD in children also present with extraintestinal manifestations, which include^{2,5}:



22% of children present with growth failure, anaemia, perianal disease, or other **extraintestinal manifestations** as the only predominant initial feature³.

What causes Paediatric IBD?

The specific cause of paediatric IBD is not fully understood. The disease most likely occurs due to a combination of genetic, immunologic and environmental factors¹².

Genetic predisposition



- Alterations of several different genes play a role in the disease^{2,3}
- Many of the genes associated to paediatric IBD are involved with the function of the immune system^{2,4,5}
- Between 15 to 25% of children with IBD have an affected relative^{1,2,3}.

Environmental factors



- Bacterial or viral infections²
- Frequent antibiotic use²
- Westernised diet²
- Smoking²
- Imbalanced gut microbiota²

Paediatric IBD occurs when, in genetically predisposed individuals, the immune system responds to a **trigger** in an abnormal way. The immune system does not shut off appropriately and mistakenly attacks the small and large intestines leading to chronic inflammation².

How will the doctor diagnose my child's disease?

Doctors can do the following tests^{2,3,5}:

✓ Blood tests

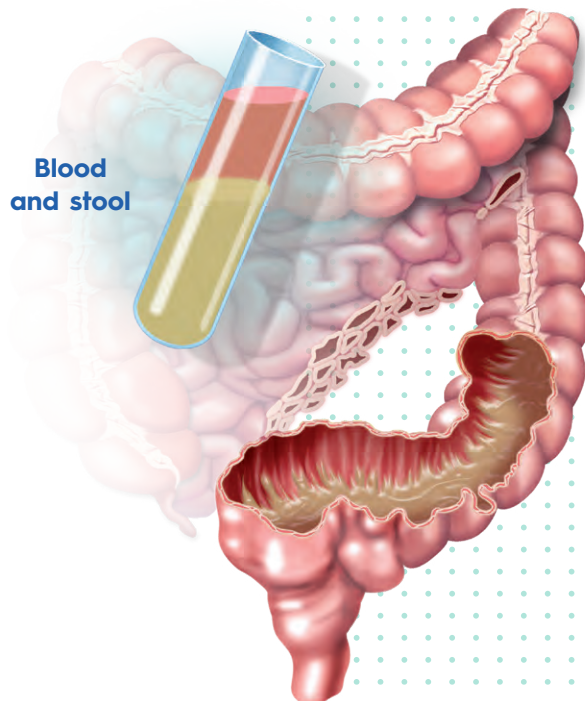
To check for anaemia (low level of red blood cells) and inflammation (high level of white blood cells)².

✓ Stool tests

To check for infection and hidden blood within the digestive tract^{2,3}.

✓ Imaging tests

X-rays, CT scans or MRI scans. Imaging tests show pictures of the inside of the body².

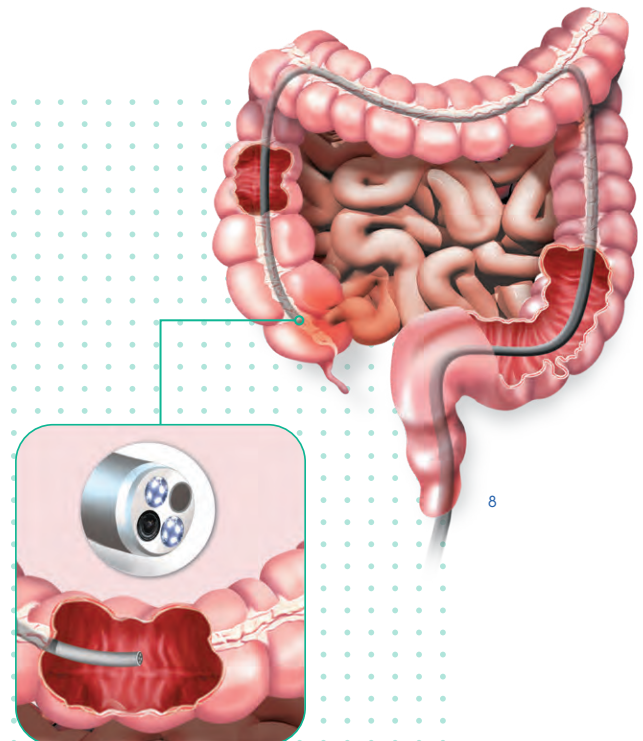


✓ Colonoscopy

Doctors put a thin tube with a camera into the rectum to allow the view of the entire colon. It also allows doctors to remove a small sample of tissue (biopsy) to detect microscopic inflammation^{2,5}.

✓ Endoscopy

Similar to a colonoscopy, the tube is inserted down the throat allowing the examination of the upper portion of the digestive tract².



What are the treatment options for children?

There is no cure for CD and UC, but with proper treatment and support, the disease can be effectively managed and may go into remission for long periods of time. Aected children can lead fairly normal lives².

Treatment options include medications, nutritional and diet therapy, and surgery².

Medication

Medication for CD and UC in children aim to reduce inflammation².

- ✓ **Aminosalicylates:** used to treat mild or moderate disease^{2,6}.
- ✓ **Corticosteroids:** stronger anti-inflammatory drugs to treat moderate or severe disease^{2,6}.
- ✓ **Immunomodulators:** used as maintenance therapy for severe cases^{2,6}.
- ✓ **Biologics:** are complex molecules that are produced in living organisms. They function in preventing inflammation and inducing mucosal healing. Biologics include anti-TNF- α (Tumor Necrosis Factor alpha) monoclonal antibodies such as infliximab, among others like adalimumab and certolizumab pegol^{2,3}.



Treatment goals

The goals of therapy are to relieve symptoms and reduce inflammation, improve growth and well-being, and induce a remission to help prevent future complications^{2,3}.

Surgery

It is recommended when other therapies have not worked^{2,3}. Doctors can:

- ✓ **Remove diseased tissue:** after surgery, most people are still able to have bowel movements as usual, through the anus³.
- ✓ **Reopen a part of the digestive** system that is blocked².

Nutritional therapy

- ✓ **Enteral nutrition:** involves consuming all calories from a special formula instead of regular diet².
- ✓ **Micronutrient deficiencies:** your child may require vitamin supplements to maintain their nutritional needs^{1,3}.

What can children do to manage their disease?



Avoid food that might worsen your symptoms

There are foods that doctors may recommend avoiding because they are difficult to digest and could worsen your symptoms. These foods include popcorn, uncooked vegetables, milk, nuts and certain spices².



Take dietary supplements

Disease factors that include chronic blood loss, intestinal malabsorption, decreased intake, and chronic inflammation place children with CD and UC at risk for deficiency of various micronutrients, such as iron, folate, vitamin B12 and vitamin D³.



Avoid taking NSAIDs

Anti-inflammatory drugs (NSAIDs) such as ibuprofen and naproxen can have an adverse effect on the disease⁷.

Seek counselling or join a support group

Up to 25% of adolescent patients with IBD may have symptoms of depression that often are undetected. Psychological support is highly encouraged for families affected by paediatric IBD, especially for the patients, to provide strategies for coping with a chronic disease long term. Cognitive behavioural therapy is a useful tool in treating depression and anxiety⁵.



Getting screened for colon cancer

Due to chronic inflammation, patients with UC and CD involving the colon have an increased risk for colon cancer. The risk increases with time from diagnosis, and higher-risk groups include those younger at diagnosis. This might mean having a colonoscopy with surveillance biopsy every 1 to 2 years starting about 8 years after the diagnosis³.



References

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8. Letter on behalf of EC Europe - 9 Feb 2022.



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