

# CROHN'S DISEASE

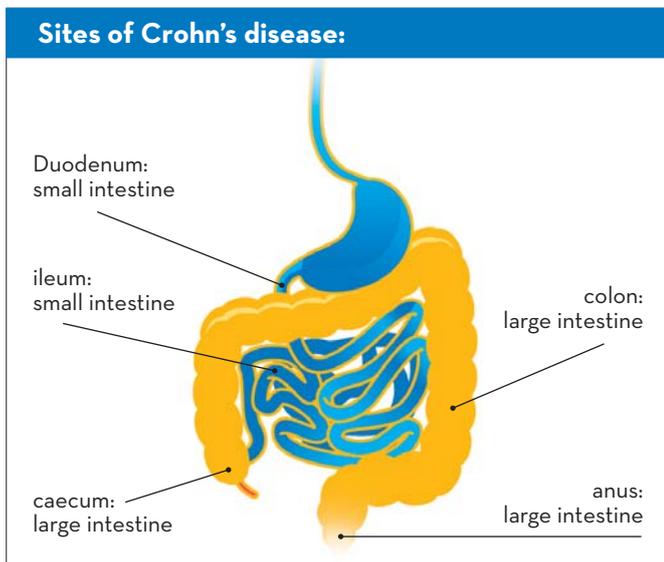
## Why Crohn's disease?

Although Crohn's disease existed for possibly 300 years before it was named, it was only distinguished from other conditions with similar symptoms by a New York physician, Burrill Crohn, in 1932.

## What is Crohn's disease?

Crohn's disease is an inflammatory bowel disease in which the wall of one or more segments of the gastrointestinal tract becomes thickened, inflamed and swollen. The thickening may lead to narrowing of the intestine in that area. Patches of Crohn's disease inflammation may involve only a few centimetres of the intestine or may be much longer, over a metre or more. Any part of the gastrointestinal tract from the mouth to the anus can be affected and there may be more than one area of involvement at one time.

The most common site of involvement is the last part of the ileum, but all or part of the colon or large intestine may be affected, either alone or with the adjacent ileum. It affects all the layers of the bowel. Inflammation in or around the anus is also common. This may take the form of fissures (ulcerated cracks) in the skin of the anal canal, fistulae (small openings discharging pus) around the anus, or tags (swollen but often painless lumps) just outside the anus. Crohn's disease is an autoimmune disease where the body's immune system turns on itself by producing inflammation (other examples of autoimmune diseases are rheumatoid arthritis and psoriasis).



## What is meant by Crohn's disease being a 'chronic' disease?

An acute disease is one which runs a short sharp course like, for example, the 'flu'. A chronic disease can give trouble over a number of years, although there may be long periods of good health alternating with episodes of symptoms lasting for weeks or months. Crohn's disease frequently runs this kind of 'relapsing and remitting' course. Unfortunately, no doctor can predict when a relapse is likely to occur, nor can they guarantee that the future will be trouble-free, even when all visible evidence of Crohn's disease has disappeared

following medical or surgical treatment.

## What symptoms does Crohn's disease produce?

Depending on the site of involvement, the intestinal inflammation of Crohn's disease usually produces abdominal pain and diarrhoea. Sometimes narrowing of the bowel causes some obstruction to onward passage of bowel content, with episodes of nausea, vomiting, abdominal distension and the bowel may stop moving. Bleeding in the bowel motion may accompany diarrhoea in people with Crohn's disease of the colon or rectum.

People with active Crohn's disease commonly feel tired and lethargic, have loss of appetite and they may have a fever. Weight loss may occur and has many causes. Anaemia often contributes to the tiredness, and may be reversed partly or completely by iron supplementation. Correction of deficiencies in folic acid and vitamin B12, if present, may also help. Sometimes the anaemia, like the fever, just reflects the presence of an inflamed intestine, and will only improve when the Crohn's disease itself settles spontaneously or with medical or surgical treatment.

Disease around the anus is frequent and may be painless unless a local abscess develops. Discharge from fistulae (small holes that appear around the anus) may however be sufficient to stain the underwear, in which case a local dressing or pad should be worn. Many treatments both medical and surgical may help these problems.

## Can Crohn's disease affect other parts of the body?

Yes. A small proportion of people with Crohn's disease suffer episodes of inflammation affecting the eyes, skin, joints or spine. A few others develop inflammation in the liver, but this is usually recognised by blood tests rather than symptoms. People with Crohn's disease may have crops of painful mouth ulcers which are identical to the ulcers commonly experienced by healthy people and do not necessarily imply the presence of Crohn's disease in the mouth.

## Is Crohn's disease only a disease of young people?

No. Crohn's disease can start at any age although it is rare at the extremes of life. It most commonly appears for the first time between the ages of 15 and 40, a time of life when people normally expect good health to cope with the challenges of studying, starting a career or a family. It is equally common in men and women.

## Why do people with Crohn's disease lose weight?

The active phases of Crohn's disease are usually accompanied by a diminished appetite, and people may also be frightened to eat for fear of worsening their pain or diarrhoea. Sometimes weight loss is a result of failure to absorb nutrients because of extensive inflammation of the small intestine. In addition, severe inflammation causes the body to burn more energy and may accelerate weight loss.

## How is Crohn's disease diagnosed?

Crohn's disease may be suspected in a patient, particularly a young adult, who develops diarrhoea, abdominal pain and weight loss which lasts for weeks or months.

Examination of the abdomen may reveal a lump of inflamed bowel. The anus and rectum will usually be examined on the first visit to your doctor or specialist with a short telescope (a sigmoidoscope) and sometimes a small fragment (biopsy) will be taken from the lining layer (mucosa) of the rectum, to be examined under the microscope. Sigmoidoscopy and biopsy are minor procedures, though initially embarrassing and uncomfortable.

Routine blood tests may show anaemia and other general evidence of inflammation. Elevated C-Reactive Protein (CRP), erythrocyte sedimentation rate (ESR), white cell counts and platelet counts are commonly used markers for inflammation and often normalise with treatment.

Colonoscopy is the single most useful examination to diagnose Crohn's disease as probably 90% of patients will have abnormalities that are diagnostic of Crohn's disease. Colonoscopy is an examination whereby, after drinking 2-4 litres of special washout fluid to clean out the colon, a flexible tube with a television camera (a colonoscope) is passed up through the anus and used to inspect and biopsy the colon and ileum. This test is usually done under sedation to make it easier for the patient. Some patients need a gastroscopy (examination of the stomach with a similar flexible tube - a gastroscope) or an enteroscopy (examination of the small bowel with a flexible tube - an enteroscope) or a wireless capsule endoscopy where a small camera capsule (the size of a tablet) is swallowed and takes pictures as it moves through the gut.

Other tests which can assist in diagnosis are C.T. (computerised axial tomography or CAT scan) MRI (magnetic resonance imaging) scans, ultrasound scans and occasionally barium x-rays. Sometimes the diagnosis of Crohn's disease is made at the time of an urgent exploratory operation.

Concerning the safety of x-ray examinations, these are very important in assessing the state of Crohn's disease and guiding treatment decisions. However x-ray radiation does increase risk of cancer and may affect eggs and sperm if the radiation involves the lower abdomen. These risks are very small however but are more important the younger you are and the more (larger dose) x-rays you have done. Generally your doctor will try to avoid multiple examinations, though in some circumstances, there is no other option to see what is going on. Radiologists keep the dose of x-rays as low as possible and may use ultrasound or MRI scanning as alternatives to CT scans (which use x-rays) in some circumstances. The benefit of an appropriate x-ray far exceeds these small risks in general.

### **Why should colonoscopy and other examinations need to be repeated?**

Specialists looking after Crohn's disease patients will aim to

avoid repeated examinations, but from time to time these may be necessary to reassess the changes in the small and large intestine, that may occur over time and may result in a change of treatment plan.

### **Is Crohn's disease hereditary?**

No, not in the same sense as a characteristic like colour blindness or a disease like haemophilia. However there seems to be some inherited contribution to the development of the disease in that a minority of patients have one or more close relatives with Crohn's disease. If you have the disorder there

is a 10-25% chance that a further family member (child/parent/sibling) will also have or develop Crohn's disease. The risk that a child will get Crohn's disease if one of their parents has it is only about 1-2 in a hundred!

### **What causes Crohn's disease?**

Despite a great deal of research, the cause of Crohn's disease remains uncertain. It is not an infectious illness in that it cannot be passed from people with Crohn's disease to previously healthy individuals. It is thought that individuals have a genetic predisposition to Crohn's disease and that some sort of "trigger", such as something infective, perhaps a virus or bacterium, initiates the disease process later in life. Environmental factors also appear to play a role.

### **Is Crohn's disease a psychosomatic illness?**

There is no good evidence that Crohn's disease is caused by stress or worry, or even that adverse 'life events' bring about flare-ups of the disease. Naturally, symptoms are going to be more difficult to cope with when patients are anxious or depressed for other reasons. Moreover general ill-health, frequency and urgency of bowel action and nagging abdominal pains may sometimes lead to a short temper, anxiety and despondency, as well as stressed relations within the family. These emotional upsets result from the disease; they do not cause it.

### **Is Crohn's disease influenced by diet?**

Suffice to say that no item of the normal Western diet and no food additives have been found to cause Crohn's disease. There is thus no logical reason for specific exclusion diets.

In general, people with Crohn's disease will benefit from the high nutritional content of a varied and ample diet. This should approach as near as possible to a normal diet, though individuals may wish to avoid specific foods (e.g. nuts) which they know from personal experience will worsen their symptoms.

### **Will Crohn's disease be worsened by activity or work?**

No, activity and work do not worsen Crohn's disease. Sometimes admission to hospital is needed during acute flare-ups of the disease, and at times people not ill enough to need hospital care will nonetheless feel

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*My Crohn's journey started in 1993 when I was 22 years old. Up until my symptoms started, I had a clean bill of health - I hadn't been to the doctor in 8 years!*

*When I finally had my initial appointment with my Gastroenterologist, he gave me a good "going over" and he booked me for some tests. This included a gastroscopy, blood tests, stool sample analysis etc - which I found quite difficult, as I was a fit and healthy guy up 'til that time (now they can throw any test at me and it doesn't faze me).*

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too unwell to cope with work. However, most people with Crohn's disease should be encouraged to pursue their normal work and leisure activities, including sports, remain fully engaged in family life and not become over-concerned about themselves or overprotected by their families. People should be masters of the disease, not its servants.

### **Smoking and Crohn's disease.**

The negative effect of smoking on Crohn's disease can not be overemphasised. It makes Crohn's disease more aggressive and more difficult to treat. Patients who smoke are more likely to develop complicated Crohn's disease (development of fistulae, stricture and abscesses), are more likely to need an operation and have early recurrence of their Crohn's disease after operation. Smoking makes all medical treatments (including azathioprine and biologicals) less effective. The positive benefits of taking a drug like azathioprine can be completely negated by smoking. Stopping smoking is the single most important thing a patient who has Crohn's disease can do for their health. Stopping smoking of course has many other important health benefits as well!

### **How will Crohn's disease affect a person's future?**

Many people with Crohn's disease never have more than mild episodic symptoms of diarrhoea and pain, and most people with the disease lead full, useful lives, able to enjoy family life and gainful employment. A few have continuous and severe symptoms and require intensive medical and surgical treatments.

### **Can Crohn's disease be cured?**

Unfortunately, no known treatment, either medical or surgical, can be guaranteed completely and permanently to eliminate Crohn's disease. However, medical treatment is frequently effective in settling down flare-ups of the disease for long periods, and surgery often brings prolonged relief of symptoms for those who are not managed with medical treatment.

Medical and surgical treatment of Crohn's disease is discussed in detail in the Medications and Surgery in IBD chapters of this book.

### **Why is Crohn's disease not always treated by an operation?**

The problem with Crohn's disease is that although it may appear to be confined to one or two segments of the intestine such as the lower ileum, other areas of intestine which at the time of an operation appear to be healthy may subsequently become involved with the disease. After an operation recurrence most commonly occurs at the site where two sections of healthy bowel have been joined.

### **When do patients with Crohn's disease need surgery, and what operations are involved?**

Troublesome problems around the anus such as abscesses or fistulae may have to be dealt with by local surgical drainage procedures.

Other major surgery involves removal of severely inflamed segments of small or large intestine. Please see the Surgery in IBD chapter for more information.

### **What special problems do children with Crohn's disease have?**

While in adults, the decreased intake of food, inflammation and bowel obstruction associated with active Crohn's disease leads to weight loss, in children, it may also slow down growth and delay sexual development. Thus great emphasis is placed on restoring nutritional intake, controlling inflammation and avoiding steroids (which impair growth) to promote growth, as once this ceases in the late teenage years, lost potential height cannot be regained. Nutritional supplements, immunomodulator therapy, infliximab or adalimumab and even surgeries may need to be used more aggressively in children than in adults to optimise growth potential.

Children and young people may also have special problems due to loss of time from school, a sense of being "different" from other young people, and difficulty in development of independence.

Please see the IBD in Children and Adolescents chapter for more information.

### **What about pregnancy and Crohn's disease?**

Please see the chapter on Sexuality, Fertility and Pregnancy.

### **Is Crohn's disease really a form of bowel cancer?**

No. There is no resemblance between Crohn's disease and cancer of the intestine. Crohn's disease is a form of chronic inflammation; cancer is a progressive and uncontrolled over-growth of cells.

### **Is any research done on Crohn's disease?**

Yes. An enormous amount of research has been and is being done on the causes and treatment of Crohn's disease and other chronic inflammatory disorders of the intestine such as ulcerative colitis. Crohn's disease is a disease which frustrates patients, provides a constant challenge to doctors, and little by little the pieces of the puzzle will be put together so that more effective treatment, and in time a cure, will be found.

This information is for general informational purposes and does not constitute medical advice. Please seek information and advice regarding your condition and/or treatment from your doctor.



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