

Introduction to inflammatory bowel disease (IBD)

Inflammatory bowel disease (IBD) is a medical term that describes a group of conditions in which the intestines become inflamed (red and swollen). Two major types of IBD are Crohn's disease and ulcerative colitis. Ulcerative colitis only affects the large intestine (colon), whereas Crohn's disease can occur in any part of the gastrointestinal tract.

No one knows for certain what causes IBD, but it is believed to be a combination of genetic, environmental and immunological factors. Normally, exposure to environmental triggers – such as viruses, bacteria and foreign proteins – prompts the immune system to switch on its normal defence mechanism (inflammation) against a foreign substance.

In most people, this immune response gradually winds down once the foreign substance is destroyed. In people with IBD, the immune system fails to react to the usual 'switch off' signals so the inflammation continues unchecked. Prolonged inflammation eventually damages the walls of the gastrointestinal tract and causes the symptoms of IBD.

The ways in which IBD affects a person with the condition is highly variable. It depends on where the disease is located in the gastrointestinal tract and how severe the inflammation is within the affected area.

Symptoms of IBD may range from mild to severe but tend to include:

- abdominal cramps and pain
- frequent, watery diarrhoea (may be bloody)
- severe urgency to have a bowel movement
- fever during active stages of disease
- loss of appetite and weight loss
- tiredness and fatigue
- anaemia (due to blood loss).

A small percentage of people with IBD may also experience problems outside the gastrointestinal tract including joint pain, skin conditions, eye inflammation, liver disorders, and thinning of the bones (osteoporosis).

Although IBD is a chronic (ongoing) condition, symptoms may come and go depending on the presence and degree of inflammation in the gastrointestinal tract. When inflammation is severe, the disease is considered to be in an active stage. When inflammation is less (or absent), symptoms may disappear altogether and the disease is considered to be 'in remission'. For most people with IBD, the usual course of disease involves periods of remission interspersed with occasional flare-ups.

IBD cannot be cured as yet, but it can be managed effectively with the use of medications to control the abnormal inflammatory response and, in some cases, surgery to remove the diseased parts

The gastrointestinal tract

The gastrointestinal tract or (GI tract) is a continuous hollow tube stretching from the mouth to the anus. Its chief purpose is to digest and absorb the food and fluid eaten and thereby supply the rest of the body with energy sources for growth and repair. Food is conveyed from the mouth down the oesophagus (feeding tube) to the stomach, which dilutes and mixes the food.

The main processes of digestion and absorption take place in the small intestine, which is divided into three areas: duodenum (the first part of the small intestine); the jejunum (the middle part); and the ileum (the lower part).

The duodenum and jejunum digest carbohydrates, proteins and fat and absorb

them, as well as many other vitamins and minerals in our diet (such as iron and folic acid), while the ileum absorbs other nutrients including vitamin B12, as well as bile salts.

Fluid waste passes from the ileum into the colon where water and salt are reabsorbed into the bloodstream and residual wastes become solid stools (faeces). These enter the lowest part of the large intestine, the rectum, and are then discharged via the anus.

A note about terminology of the intestines

The intestines are part of the gastrointestinal tract and are referred to as either 'intestines' or 'bowels', hence the term 'inflammatory bowel disease'.

